













Zespół Elektrowni Pątnów-Adamów-Konin SA 1H 2021 results





ZE PAK Group – 6M 2021 summary



Key operational and financial data	6M 2021		Change y/y
Sale of electricity:	2.61	TWh	-16.61%
Electricity from own production:	1.86	TWh	-19.48%
Electricity from resale:	0.75	TWh	-8.54%
Achieved average electricity sale price (1)	273.78	zł/MWh	-1.19%
Average purchase price of EUA	110.16	zł/EUA	-5.66%
Sale revenues:	986	mln zł	-6.10%
EBITDA:	83	mln zł	36.07%
Net result:	20	mln zł	-
CAPEX:	214	mln zł	3 466%
Indebtedness:	260	mln zł	237.66%
Cash (2):	85	mln zł	-55.03%
Net debt / EBITDA:	1.03	Х	-

⁽¹⁾ Average price, calculated as electricity sales revenues (own production, from resale and system service) divided by sales volume.

⁽²⁾ Cash and cash equivalents and other financial short-term assets.

ZE PAK Group – 2Q 2021 summary



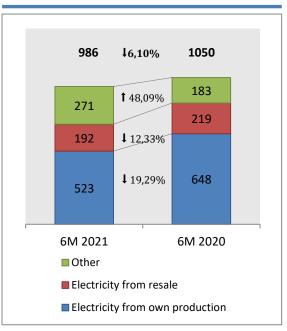
Key operational and financial data	2Q 2021		Change y/y
Sale of electricity:	1.37	TWh	-14.38%
Electricity from own production:	1.06	TWh	-10.17%
Electricity from resale:	0.31	TWh	-26.19%
Achieved average electricity sale price	280.97	zł/MWh	2.74%
Average purchase price of EUA	116.11	zł/EUA	1.32%
Sale revenues:	523	mln zł	-0.57%
EBITDA:	57	mln zł	83.87%
Net result:	28	mln zł	-
CAPEX:	156	mln zł	3 020%

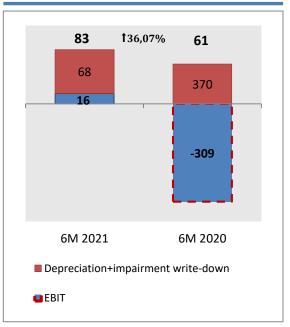
ZE PAK Group – 6M 2021 summary

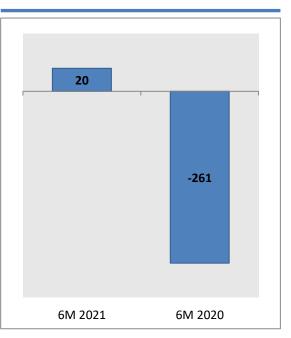
[m PLN]











Revenues from sales of electricity, both from own production and from resale, were lower in the first half of 2021 than in the first half of 2020, mainly due to the lower volume of electricity production. The significant increase in revenues in the "other" category is due to revenues from the capacity market (PLN 92 million in the first half of 2021), which was not recorded in the first half of 2020.

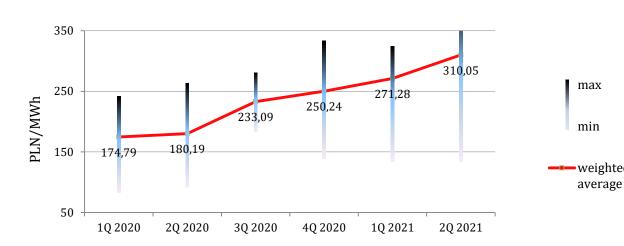
In the first half of 2021, there was a significant improvement in results at the level of EBITDA and net profit, however, it should be remembered that the results of the first half of 2020 were burdened with write-offs related to the change in the directions of the Group's strategy (shortening the operating period of production assets and abandoning the exploitation of Ościsłowo deposit). The factor adversely affecting the financial results in the first half of 2021 was the lower volume of electricity sales. First of all, the new revenue stream in the form of payments from the capacity market had a positive effect, in addition, the relation between the selling price of energy and the cost of purchasing emission allowances improved slightly in the first half of 2021 compared to the first half of 2020.

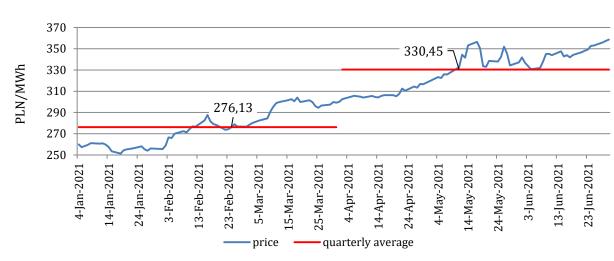
SELECTED ELECTRICITY MARKET DATA



Electricity prices







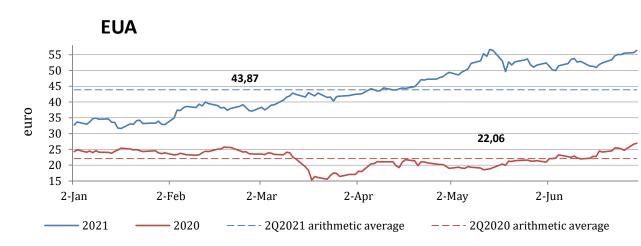
In the first half of 2021, on the TGE S.A. day-ahead market, the upward trend in energy quotations, started in 2020, continued. The factors influencing the increase in energy prices are primarily: a large increase in energy demand on the domestic and other European markets, rising CO2 prices, dynamically growing prices of energy resources (coal, gas). In addition, the process of creating a common pan-European electricity market, within which the Polish energy market is also combined, both within the day-ahead and intraday markets, causes that the price of energy on TGE S.A. is susceptible to changes in import capacity and the price of energy in the neighboring markets.

On the electricity futures market on the Towarowa Giełda Energii S.A., in the second quarter of 2021, as in the first quarter, the level of prices quoted on the BASE-Y22 contract continued to be on an upward trend. The arithmetic average of the daily clearing rates for the reference futures contract BASE_Y-22 was PLN 330.45 / MWh (the highest price was PLN 358.65 / MWh on June 30, 2021).

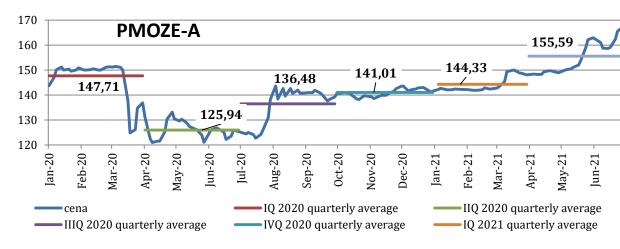
In the first half of 2021, Poland was still an energy importer. The balance of foreign exchange in the first half of 2021 amounted to 3.27 TWh on the import side, however, net import was significantly, by as much as 50%, lower than in the first half of 2020.

EUA and green certificates





The first half of 2021 was characterized by a high dynamics of growth in the prices of emission allowances. Until April, the demand for EUA units was supported mainly by EU ETS installations obliged to settle their emissions for 2020, high prices achieved at auctions, the continued boom in the stock and commodity markets, and changes in the regulatory environment, including the adoption of European law by the European Parliament and the Council, which will result in an increase in the reduction target in the EU to a 55% decrease in emissions in 2030 compared to 1990. In May, the prices of EUA allowances broke the psychological level of EUR 50 and in June ended at EUR 56.25.



In the first half of 2021, the prices of green certificates continued in an upward price trend. Weighted average price of green certificates in session transactions on TGE S.A. in the first half of 2021 it was at the level of PLN 150.22 / MWh, which means an increase by PLN 12.42 / MWh compared to the price of the first half of 2020. The fact that their supply on the market has probably contributed to the increase in prices, as in 2020, some entities ended their participation in the certificates of origin system due to the end of the 15-year support period, while some installations resigned from applying for green certificates as a result of winning migration auctions.

OPERATIONAL DATA



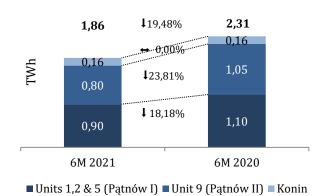
Semi-annual net production and sale of electricity

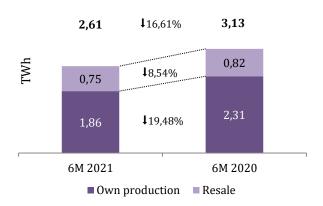


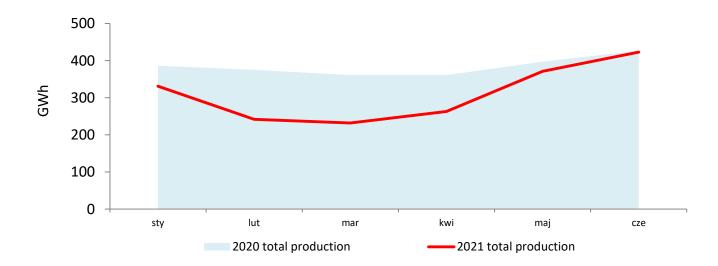


NET PRODUCTION

SALE







The decrease in production observed in the first half of 2021 was caused by the shutdown of a 474 MW unit for maintenance shutdown (March and the first decade of April), also problems with the optimal level of coal supplies in the first quarter contributed to lower production.

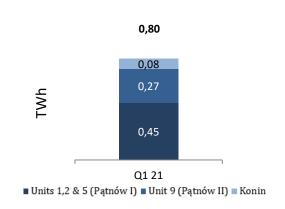
In May and June, the production level did not differ significantly from last year's levels.

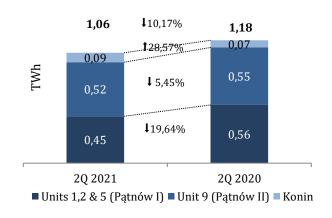
Quarterly net production and sale of electricity



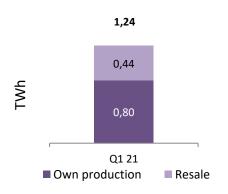


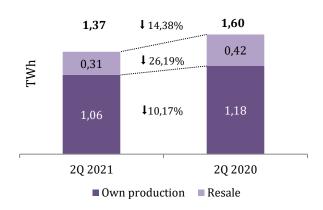
NET PRODUCTION





SALE





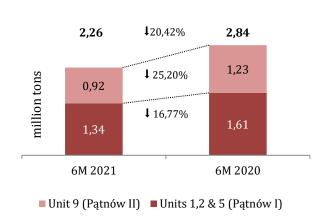
Lignite consumption and CO₂ emission

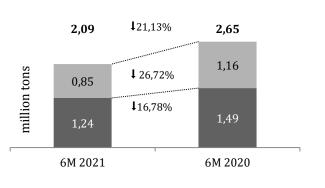
[m tons]



LIGNITE CONSUMPTION

CO₂ EMISSION

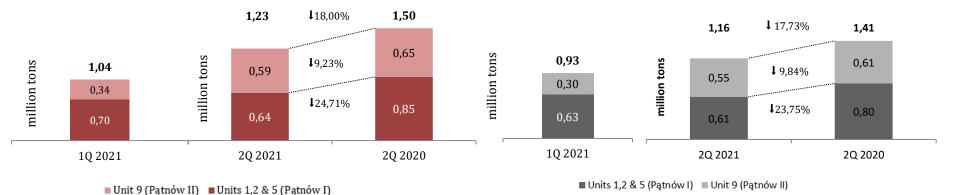




■ Units 1,2 & 5 (Patnów I) ■ Unit 9 (Patnów II)

Data on coal consumption and CO2 emissions both in the first half of 2021 and in Q2 2021 alone show a decrease in coal consumption and lower emissions, which results from lower volumes of energy produced compared to the corresponding periods of the previous year.

The Group purchases almost all emission allowances on the market. The amount of free allowances used both in the first half of 2021 and 2020 did not exceed 1% of the total amount of allowances.

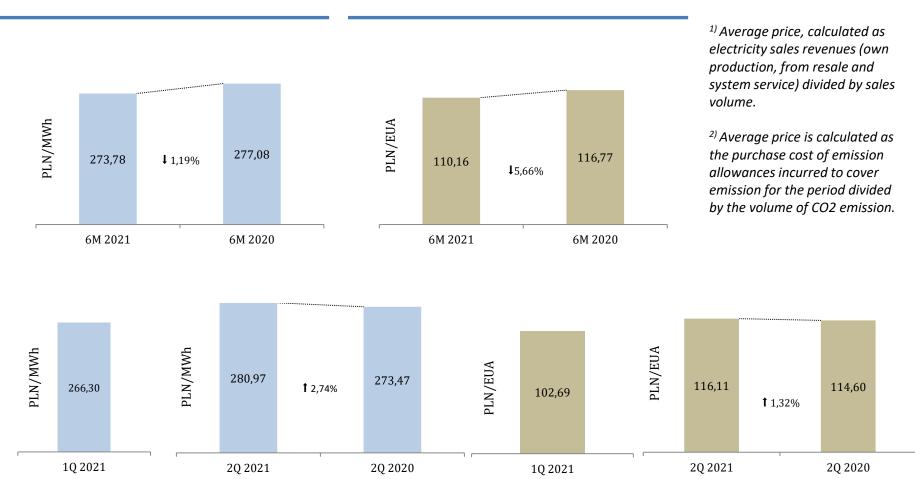


Average prices of electricity and CO₂ emission allowances purchase



Electricity prices 1)

Prices of CO2 emission allowances purchase (EUA) 2)



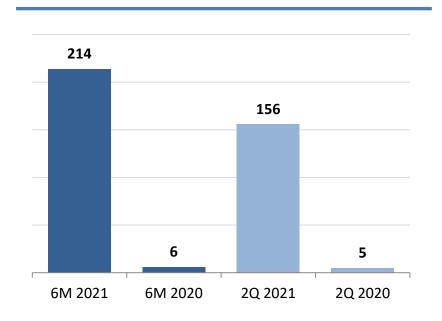
Capex on fixed assets and intangible assets

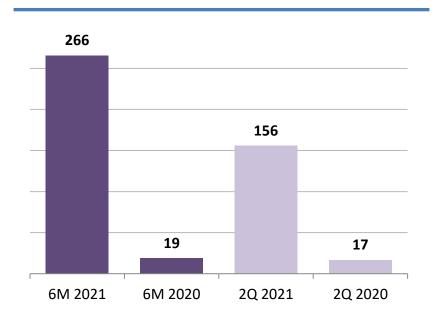
(excluding CO₂)



CAPEX [m PLN]

EXPENDITURES [m PLN]





In the first half of 2021, ZE PAK SA Group continued the implementation of two large investment projects: the adaptation of the K-7 coal boiler at Konin power plant for the exclusive combustion of biomass with the necessary technical infrastructure and the construction of a 70 MWp photovoltaic farm in Brudzew commune. In addition, investment activity focused on launching projects related to the production and distribution of hydrogen as well as preparatory work for the implementation of further renewable energy sources.

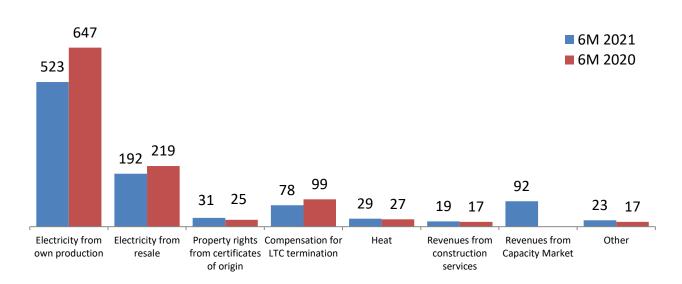
FINANCIAL DATA

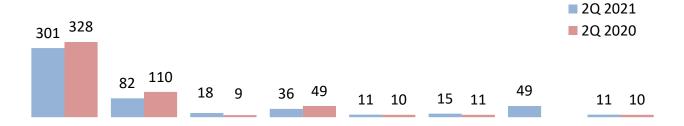


Revenues

[m PLN]







Lower total revenues from the sale of electricity:

- lower volume of own electricity sale,
- lower sales volume from trading,
- lower electricity sale price

Higher revenues from the sale of property rights from certificates of origin for energy caused by a higher volume of green energy production as well as a higher average price of property rights.

Lower compensation for the termination of PPAs mainly due to a 38% lower adjustment and a 4% lower advance payment compared to the same period last year. This level of adjustment is the result of a higher operating result compared to the first half of 2020, mainly due to revenues from the provision of power services on the primary and secondary markets for the first time in 2021, lower operating costs as a result of producing a lower energy volume due to 40-day medium repair. On the other hand, the level of the advance payment results directly from the LTC Act and in 2021 is assumed to decrease slightly compared to 2020.

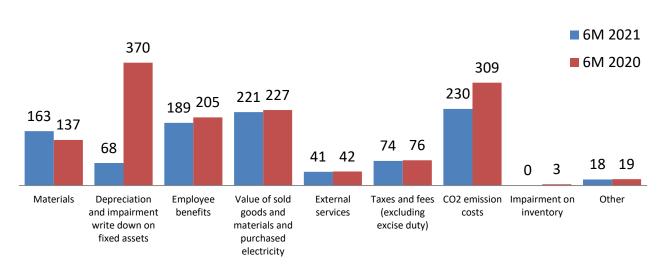
Increase in revenues from the sale of heat as a result of a higher volume and selling price.

A new item – revenue from the Capacity Market from 2021.

Costs by type

[m PLN]





Costs

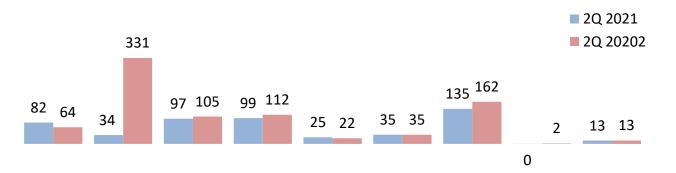
Higher material costs mean higher costs of purchased coal and higher costs of materials used for renovation.

Lower depreciation is the result of write-downs made in previous periods. In 2020, the item included revaluation write-offs for fixed assets as a result of impairment determined by the performed tests.

Lower costs of employee benefits as a result of lower average employment.

Lower value of goods and materials sold related to the smaller amount of purchased electricity intended for trading.

Lower costs of CO₂ emissions due to lower emissions.



EBITDA 6M 2021

[m PLN]



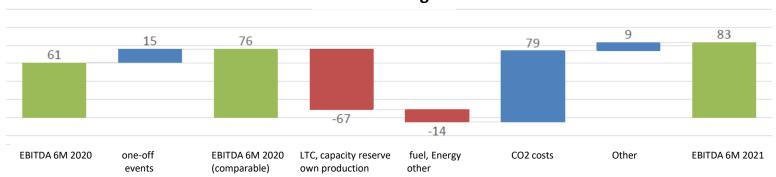
	6M 2021	6M 2020
Sale revenues	986	1 050
Change %	(6.10)%	
Costs of goods sold	(931)	(1 306)
Gross profit	55	(255)
Margin %	5.58%	(24.29)%
Other operating revenues	28	36
Selling and distribution expenses	(3)	(2)
Administrative expenses	(53)	(52)
Other operating expenses	(12)	(36)
EBITDA ⁽¹⁾	83	61
Margin %	8.42%	5.81%
EBIT	16	(309)
Margin %	1.62%	(29.43)%

(1) EBITDA higher by PLN 22 m (+36.07%) -> after bringing to comparability higher by PLN 7 m (+9.21%)

comparable EBITDA for 6M 2020 amounted to PLN 76 m -> the value of PLN 61 m is the effect of events related to the shortening of the operating period of Pathów I and Pathów II power plants as well as coal extraction in PAK KWB Adamów and the creation of an impairment charge for the expenditure incurred on the construction of Ościsłowo open pit

- (-67) revenues from Capacity Market, higher revenues from property rights; higher revenues from heat, lower revenues from own electricity, lower revenues from system service, lower revenues fro LTC, lower result realized on purchased electricity
- (-14) higher costs of purchased coal, higher biomass costs, lower energy costs (in mines), higher costs of other fuels and materials (mazout, heating oil, sorbent)
- (+79) lower costs of CO₂ emisision
- (+9) lower salary costs, lower external services, lower taxes, higher result on other operating activities, higher other materials, lower other revenues and lower other costs

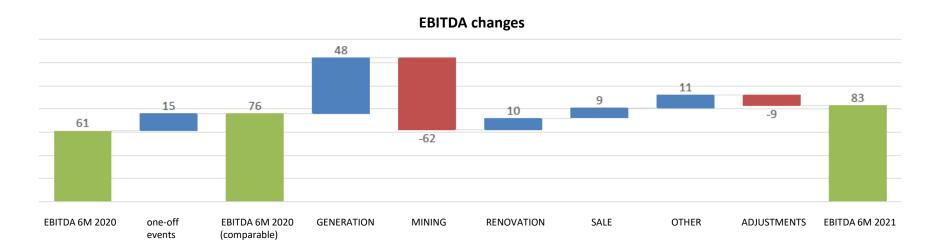
EBITDA changes



EBITDA 6M 2021 by segments

[m PLN]





Main reasons of EBITDA changes in segments:

Generation:

- revenues from the Capacity Market (from 2021), higher revenues from certificates, higher revenues from heat, lower revenues from own energy, lower revenues from LTCs,
- lower coal costs, higher biomass costs, higher costs of other fuels and materials (mazout, oil, sorbent, etc.)
- lower costs of carbon dioxide emission allowances
- positive result on other operating activities, lower costs of employee benefits,

Mining:

lower revenues from coal sales, higher costs of substitute coal, lower costs of external services, lower costs of employee benefits, lower costs of electricity,



Consolidated profit and loss account for 6M 2021 by segments



m PLN	Generation	Mining	Renovation	Sale	Other	Consolidation adjustments	Total
Sale revenues from external customers	837	7	25	114	3	0	986
External sale revenues %	93.21%	3.35%	24.75%	100.00%	4.11%	0.00%	100.00%
Sale revenues between segments	61	202	76	_	70	(409)	_
Sale revenue	898	209	101	114	73	(409)	986
Cost of goods sold	(839)	(229)	(87)	(109)	(71)	403	(931)
Gross profit (loss)	60	(20)	14	4	2	(6)	55
Margin %	6.68%	(9.57)%	13.86%	3.51%	2.74%	1.47%	5.58%
EBITDA	101	(26)	11	3	-	(6)	83
Margin %	11.25%	(12.44)%	10.89%	2.63%	0.00%	1.47%	8.42%
EBIT	44	(33)	10	3	(2)	(7)	16
Margin %	4.90%	(15.79)%	9.90%	2.63%	(2.74)%	1.71%	1.62%
Net profit (loss)	50	(40)	7	2	(2)	2	20
Margin %	5.57%	(19.14)%	6.93%	1.75%	(2.74)%	(0.49)%	2.03%

EBITDA 2Q 2021

[m PLN]



	2Q 2021	2Q 2020
Sale revenues	523	526
Change %	(0.57)%	(26.02)%
Costs of goods sold	(482)	(802)
Gross profit	41	(276)
Margin %	7.84%	(52.47)%
Other operating revenues	21	15
Selling and distribution expenses	(1)	(1)
Administrative expenses	(26)	(23)
Other operating expenses	(11)	(16)
EBITDA ⁽¹⁾	57	31
Margin %	10.90%	5.89%
EBIT	24	(300)
Margin %	4.59%	(57.03)%

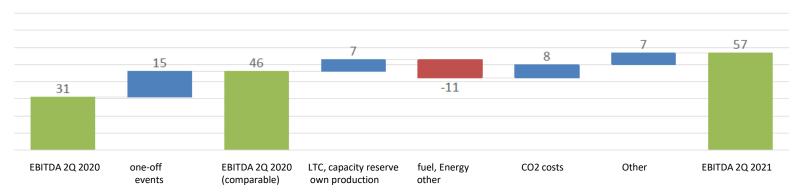
(1) EBITDA higher by PLN 26 m (+83.87%) -> after bringing to

comparability higher by PLN 11 m (+23.91%)

comparable EBITDA for 2Q 2020 amounted to PLN 46 m -> the value of PLN 11 million is the result of events related to the shortening of the operating period of Pathów I and Pathów II power plants as well as coal extraction in PAK KWB Adamów and the creation of a write-down for the expenditure incurred on the construction of Ościsłowo open pit

- (+7) revenues from the Capacity Market, higher revenues from property rights; higher revenues from heat, lower revenues from own energy, lower revenues from system services, lower revenues from LTCs, lower result achieved on energy purchased
- (-11) higher costs of purchased coal, higher biomass costs, higher energy costs (in mines), lower costs of other fuels and materials (mazout, heating oil, sorbent)
- (+8) lower costs of CO₂ emission
- (+7) lower salary costs, higher external services, higher taxes, higher result on other operating activities, higher remaining materials, higher other revenues and higher other costs

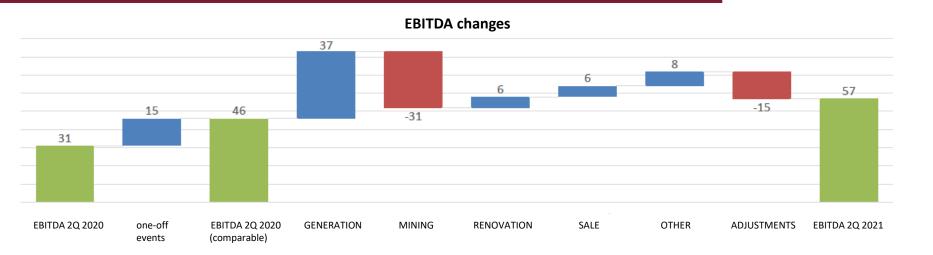
EBITDA changes



EBITDA 2Q 2021 by segments

[m PLN]





Main reasons of EBITDA changes in segments:

Generation:

- revenues from the Power Market (from 2021), higher revenues from property rights; higher revenues from heat, lower revenues from own energy, lower revenues from system services, lower revenues from LTCs, lower result achieved on energy purchased
- lower coal costs, higher biomass costs, lower costs of other fuels and materials (mazout, heating oil, sorbent)
- Higher costs of CO₂ emission
- positive result on other operating activities, lower costs of employee benefits

Mining:

 lower revenues from the sale of coal, higher costs of substitute coal, higher costs of electricity, lower costs of external services, lower costs of employee benefits



Consolidated profit and loss account for 2Q 2021 by segments



m PLN	Generation	Mining	Renovation	Sale	Other	Consolidation adjustments	Total
Sale revenues from external customers	442	5	19	56	2	0	523
External sale revenues %	93.45%	4.13%	34.55%	100.00%	5.26%	0.00%	100.00%
Sale revenues between segments	31	116	36	-	36	(219)	
Sale revenue	473	121	55	56	38	(219)	523
Cost of goods sold	(446)	(115)	(46)	(54)	(34)	212	(482)
Gross profit (loss)	27	6	8	1	4	(7)	41
Margin %	5.71%	4.96%	14.55%	1.79%	10.53%	3.20%	7.82%
EBITDA	46	7	7	2	3	(7)	57
Margin %	9.73%	5.79%	12.73%	3.57%	7.89%	3.20%	10.88%
EBIT	18	4	6	2	2	(8)	24
Margin %	3.81%	3.31%	10.91%	3.57%	5.26%	3.65%	4.58%
Net profit (loss)	18	1	4	1	2	1	28
Margin %	3.81%	0.83%	7.27%	1.79%	5.26%	(0.46)%	5.34%

Financial activities, taxation and net result

[m PLN]



	6M 2021	6M 2020	2Q 2021	2Q 2020
EBIT	16	(309)	24	(300)
Financial income	1	6	(1)	(2)
Financial costs	(6)	(12)	(3)	(7)
Gross profit / (loss)	10	(314)	20	(309)
Income tax (tax overload) ⁽¹⁾	10	54	8	59
Effective tax rate	(100.00)%	17.20%	(40.00)%	19.09%
Net profit / (loss) for the period	20	(261)	28	(250)
Margin %	2.03%	(24.86)%	5.34%	(47.53)%

(1) The negative value of the tax is the result of the reduction of the provision for income tax and the reduction of deferred tax.

EBIT --> net profit

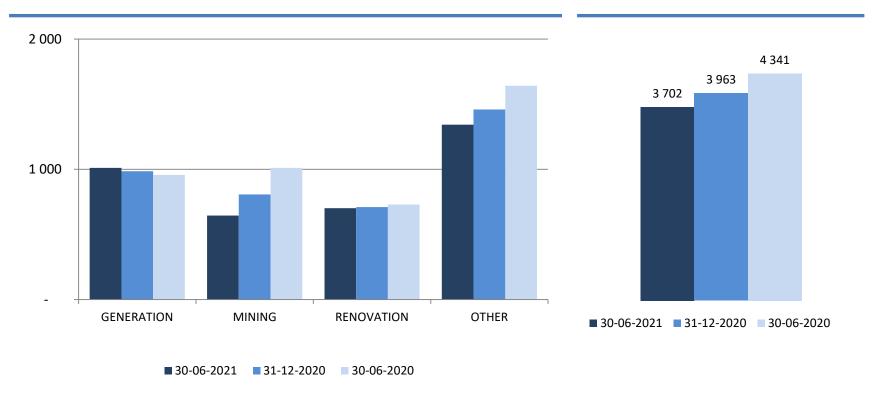


EMPLOYMENT

[full time]



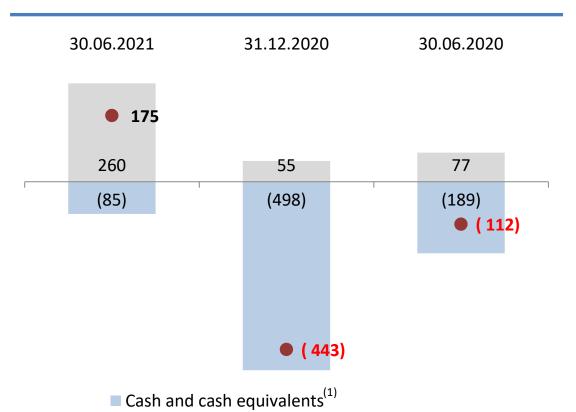
BY SEGMENTS TOTAL



Indebtedness



Net debt [m PLN]



■ Interest bearing loans, borrowings and leases

Net debt

Net debt / EBITDA

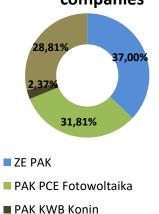
30.06.2021	1.03
31.12.2020	(3.00)
30.06.2020	(0.39)

(1) Cash and cash equivalents from consolidated statement of financial position and other short-term financial assets

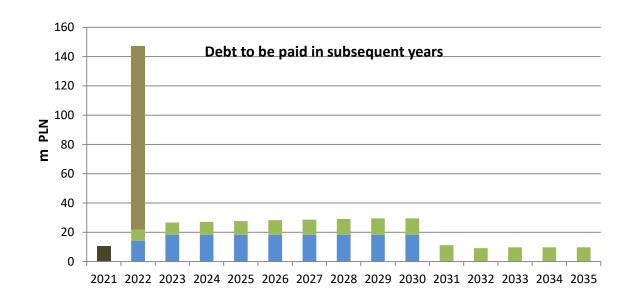
Financial indebtedness structure



Indebtedness structure by companies



■ PAK Polska Czysta Energia



The debt structure is dominated by debt related to the financing of new projects in the renewable energy sector. In the case of ZE PAK it is a project of reconstruction of a biomass boiler with a target capacity of 50 MW, in the case of PAK PCE Fotowoltaika it is a farm in Brudzew with a capacity of 70 MWp. The loan obtained by PAK Polska Czysta Energia is used to implement projects in the field of renewable energy sources. The debt in PAK KWB Konin is a short-term bank debt with maturity in 2021.

Consolidated cash flow statement

[mln PLN]



	6M 2021	6M 2020	2Q 2021	2Q 2020
Gross profit / (loss)	10	(314)	20	(309)
Depreciation and amortisation	67	79	34	41
Profit/(loss) on investing and financial activities	(9)	(5)	(8)	(1)
Changes in working capital	203	237	38	98
Income tax ⁽¹⁾	1	33	2	10
Purchase of EUA ⁽²⁾	(634)	(526)	(15)	(153)
Impairment write down on fixed assets and mining assets	-	289	-	289
Other	(3)	0	(6)	2
Net cash flow from operational activities	(364)	(207)	67	(22)
(inflows/outflows) of investments in property, plant and equipment and intangible assets	(266)	(19)	(156)	(17)
Other inflows and outflows	12	4	10	0
Net cash flow from investing activities	(254)	(15)	(146)	(17)
Inflows of credits, loans and securities (3)	272	13	168	(81)
Payment of credits, loans, leases and securities (4)	(65)	(16)	(58)	(8)
Interest paid	(2)	(1)	(1)	(1)
Net cash flow from financial activities	205	(4)	109	(90)
Change in cash and cash equivalents	(413)	(226)	29	(129)
Cash and cash equivalents at the beginning of the period	498	415	56	318
Cash and cash equivalents at the end of the period	85	189	85	189

- (1) Tax refund as a result of tax adjustments made for previous years in connection with the change in the moment of recognition as a tax cost of expenses for the purchase of CO2 emission allowances
- (2) Higher expenses are related to the settlement of contracts for the purchase of CO2 emission allowances
- (3) Proceeds from loans include investment loans launched for the construction of a biomass block (PLN 86.7 million) and a photovoltaic farm, including VAT financing (PLN 106.6 million), the remaining part relates to working capital financing.
- (4) The repayment of loans is mainly related to the termination of financing PAK KWB Konin by commercial banks.

STRATEGIC PROJECTS IN RENEWABLE ENERGY SOURCES

As at September 24th, 2021



Green energy and heat – Biomass unit no.2 in Konin Power Plant (K7/TG5)



Main technical parameters and financial data:

Rated electric power: 50 MW
Boiler thermal efficiency at 100% WMT: > 88.8%
Thermal power of the system in network waters: ≥ 80 MWt

Guaranteed exhaust emission parameters:

 SO_2 concentration < 70 mg/Nm³ NO_x < 180 mg/Nm³ CO concentration < 160 mg/Nm³ MS_x < 12 mg/Nm³ MS_x + 12 mg/Nm³ MS_x + 15 mg/Nm³ MS_x + 15 mg/Nm³ MS_x + 15 mg/Nm³

Project investment budget: PLN 212.8 m

Financial advancement: 59 %

Investment completion date: October 2021



New facilities for the biomass feeding system to K7 boiler - transfer tower and biomass feeding pipeline to the boiler.

Biomass unit no.2 in Konin Power Plant (K7/TG5) – new transfer tower and biomass feeding pipeline





Biomass unit no.2 in Konin Power Plant (K7/TG5) – modernized electrostatic precipitator





Energy from the sun – "Brudzew" 70MWp photovoltaic farm



Main technical and financial data

Rated power: 70 MWp Amount of modules: 155 554 pcs

Productivity coefficient: $\geq 80.4\%$ **Amount of inverters**: 306 pcs

Area occupied: > 100 ha **Amount of transformer stations:** 31 pcs

Single module power: 450 Wp Project budget: PLN 188.9 m

Financial advancement: ca. 70 %

Material advancement: ca. 80%



Expected date of commissioning of the power plant:

October 2021

"Brudzew" Farm – May 2021

"Brudzew" 70 MWp Farm – 110/20/20 kV transformer





"Brudzew" 70 MWp Farm – one of 31 pcs of 0,8/20kV transformer stations





"Brudzew" 70 MWp Farm - mounted photovoltaic modules







Green hydrogen

Hydrogen projects realized in ZE PAK Group

Hydrogen Plant in Konin Power Plant

As part of the first stage of construction, a production plant with a capacity of 1 ton of H2 / day will be launched.

Ultimately, the plant is to be expanded to a capacity of 20 tons of H2 / day - successively to increase the demand for hydrogen.

April 2020:

A contract was concluded with Hydrogenics Europe Belgium for the supply of hydrogen technology - HyLYZER electrolyser, power supply system, compressor station and power supply system for mobile warehouses.

The planned date of obtaining the environmental decision - June 2021. Design works are underway.

Hydrogen refueling station in Konin and in Warsaw

October 2020:

Conclusion of an agreement with NEL Hydrogen Denmark for the supply of technological equipment for two hydrogen refueling stations

The station design process is underway.



An example of an electrolyser HyLYZER 1000-30 bar

Mobile hydrogen storage facility

January 2021:

An agreement was signed with Wystrach Germany for the delivery of a mobile hydrogen storage facility.

Preparation for the certification, registration and receipt of the mobile warehouse is in progress.



Polish hydrogen bus



September 2021 - STAGE 4

A year ago, work began on the project to build a prototype of a hydrogen bus.

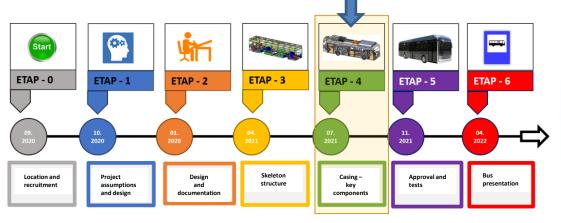
We are currently in stage 4 - external and internal development of key components.

November 2021 - STAGE 5

Commencement of the vehicle approval process

April 2022 - STAGE 6

The bus is ready for commercialization





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