

ORLEN Group consolidated financial results 4Q22







Key facts



Market environment



Financial and operating results



Financial situation



Outlook

Key facts 4Q22



- Finalization of merger with PGNiG Group.
- Realization of remedies as a part of acquisition of Lotos Group.
- Securing crude oil deliveries from Saudi Aramco to ORLEN Group's refineries.
- Agreement with Saudi Aramco and SABIC on possible cooperation in petrochemical project in Gdańsk.
- Acquisition of petrochemical assets from Basell Orlen Polyolefins (100 kt yearly capacity of polyethylene LDPE).
- Planned increase of crude oil production by 46,6 m boe and natural gas production by 9 bcm in Norway from 2027.
- Obtaining shares in the next 4 exploration concessions by PGNiG Upstream Norway and LOTOS Exploration & Production Norge.
- Security strengthening of LNG supplies to Poland (own fleet of 8 gas carriers by the end of 2025).
- 20-year contract with Sempra Infrastructure for purchasing of American LNG (1,3 bcm of LNG per year. Beginning of supplies in 2027).
- Planned investments in logistics and production assets in Gdańsk (sea terminal on Martwa Wisła and Hydrocracking Oil).
- ORLEN VC investment in an innovative technology enabling cheaper, faster and more ecological production of semi-finished products used e.g. in the
 production of cars, medicines, plastics or fuel additives.
- Establishment of a Climate and Sustainability Council and appointment of a Board Representative for Climate and Sustainability.
- Disclosure of total carbon footprint (beginning of "scope 3" reporting allowing to calculate greenhouse gas emissions along the entire value chain).
- Completion of the construction of one of the largest PV farms in Poland with a total capacity of 62 MW.
- Planned investments reducing the water intake from Vistula river used for technological processes in Płock by 25%.
- Planned construction of the first biogas plant in Poland to reduce CO2 emissions in truck transport.
- Extension of cooperation with Polish Football Association for another 4 years
- PKN ORLEN for the 12th time in a row awarded the Top Employer Poland title, awarded to the best employers in the country. The prestigious list of
 companies that meet the highest global standards in personnel policy also includes companies from ORLEN Group ANWIL and ORLEN Unipetrol.







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Macroeconomic environment 4Q22



		4Q21	3Q22	4Q22
Brent crude oil	USD/bbl	80	101	89
Model refining margin ¹	USD/bbl	4,5	16,4	22,0
Differential ²	USD/bbl	1,7	7,4	6,4
Model petrochemical margin ³	EUR/t	1 253	1 155	1 056
Natural gas price TTF month-ahead	PLN/MWh	441	965	580
Natural gas price TGEgasDA	PLN/MWh	453	954	474
Electricity price TGeBase	PLN/MWh	616	1 067	750
Refining products ⁴ - crack margins from quotations				
Diesel	USD/t	84	328	383
Gasoline	USD/t	178	287	251
HSFO	USD/t	-180	-325	-311
Petrochemical products ⁴ - crack margins from quotations				
Polyethylene ⁵	EUR/t	493	471	487
Polypropylene ⁵	EUR/t	698	460	438
Ethylene	EUR/t	715	639	606
Propylene	EUR/t	730	598	514
Paraxsylene	EUR/t	344	586	593
Average exchange rates ⁶				
USD/PLN	USD/PLN	4,04	4,71	4,64
EUR/PLN	EUR/PLN	4,62	4,75	4,73

⁽¹⁾ Model refining margin = revenues (93,5% Products = 36% Gasoline + 43% Diesel + 14,5% HHO) - costs (100% input: Brent crude oil and other raw materials). Spot quotations. (valid till 31.07.2022) Model refining margin = revenues (93,6% Products = 33% Gasoline + 48% Diesel + 13% HHO) - costs (100% input: 98% Brent crude oil + 2% natural gas). Spot quotations. (valid from 01.08.2022)

⁽²⁾ Differential calculated on the real share of processed crude oils. Spot quotations. (valid from 01.01.2022)

⁽³⁾ Model petrochemical margin = revenues (98% Products = 44% HDPE + 7% LDPE + 35% PP Homo + 12% PP Copo) - costs (100% input = 75% Naphtha + 25% LS VGO). Revenues contract quotations; costs spot quotations.

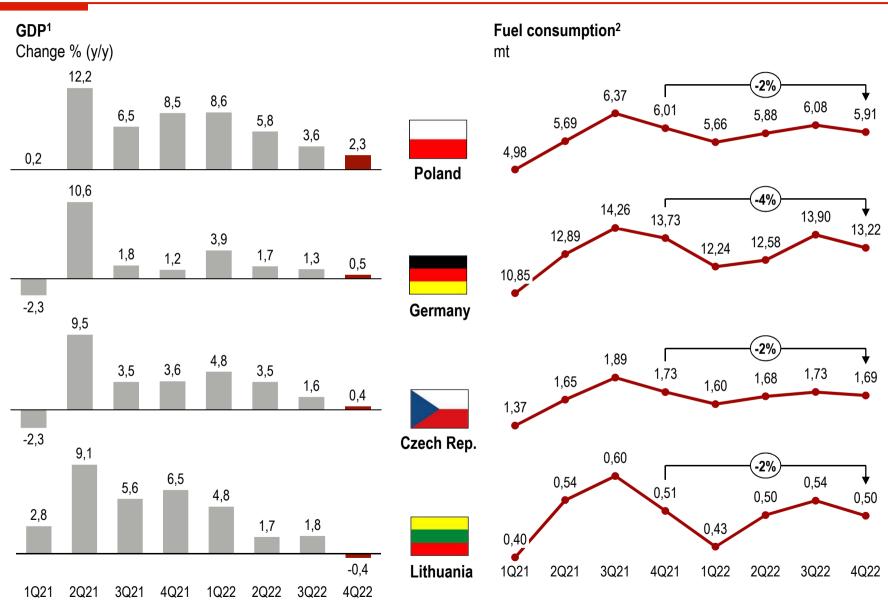
⁽⁴⁾ Margin (crack) for refining and petrochemical products (excluding polymers) calculated as difference between a quotation of given product and a quotation of Brent DTD crude oil.

⁽⁵⁾ Margin (crack) for polymers calculated as difference between quotations of polymers and monomers

⁽⁶⁾ Average exchange rates according to the data of the National Bank of Poland.

Fuel consumption decrease as a result of economic slowdown





¹4Q22 – estimates: Poland (NBP) / Czech Rep., Germany, Lithuania (European Commission)

² 4Q22 – own estimates based on available data from ARE, Lithuanian Statistical Office, Czech Statistical Office and German Association of Petroleum Industry





Key facts



Market environment



Financial and operating results



Financial situation

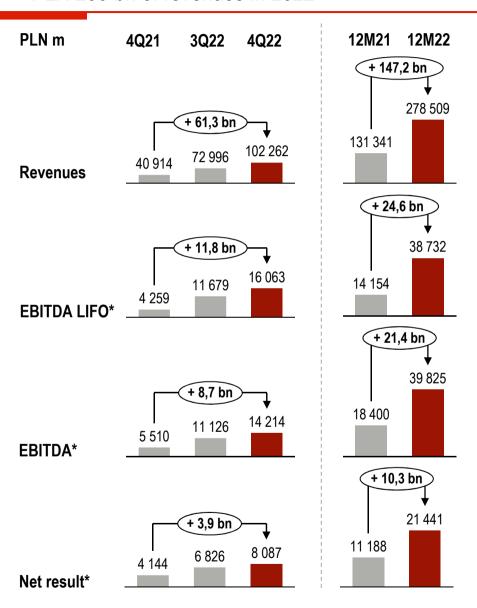


Outlook

Financial results

~ PLN 280 bn of revenues in 2022





Revenues: ~ PLN 100 bn of revenues in 4Q22 due to higher sales volumes resulting from consolidation of acquired Lotos Group and PGNiG Group as well as higher quotations of refining products at lower quotations of petrochemical products.

EBITDA LIFO: increase by PLN 11,8 bn (y/y) mainly due to consolidation of results of Lotos Group and PGNiG Group in the amount of PLN 7,4 bn and positive macro impact. Abovementioned effects were limited by negative impact of valuation of CO2 contracts, usage of historical inventory layers and higher overheads and labor costs.

LIFO effect: PLN (-) 1,8 bn impact of changes in crude oil prices on inventory valuation.

Financial result: PLN 0,5 bn as a result of the surplus of positive FX differences and net impact of settlement and valuation of derivative financial instruments at negative impact of interests costs.

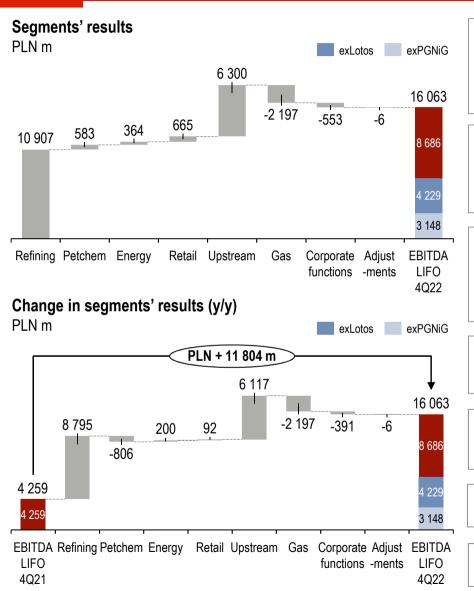
Net result: PLN 8,1 bn of profit in 4Q22 (does not include one-off profit on bargain purchase of PGNiG Group in the amount of PLN 8,2 bn).

^{*}Results does not include profit on bargain purchase of Lotos Group in the amount of PLN 5824 m in 3Q22 and PGNiG Group in the amount of PLN 8193 m in 4Q22 Operational results before impairments of assets: 4Q21 PLN 903 m / 3Q22 PLN (-) 53 m / 4Q22 PLN (-) 447 m / 12M21 PLN 811 m / 12M22 PLN (-) 3387 m

EBITDA LIFO



PLN 7,4 bn impact of results consolidation of acquired Lotos Group and PGNiG Group



Refining: increase by PLN 8,8 bn (y/y) due to positive macro impact and results consolidation of acquired Lotos Group in the amount of PLN 3,6 bn. Abovementioned effects were limited by negative impact of valuation of CO2 contracts, usage of historical inventory layers and higher overheads and labor costs.

Petchem: decrease by PLN (-) 0,8 bn (y/y) due to negative impact of macro, lower sales volumes, valuation of CO2 contracts, usage of historical inventory layers and higher overheads and labor costs.

Energy: increase by PLN 0,2 bn (y/y) as a result of positive impact of macro limited by negative impact of lower sales volumes, consolidation of acquired PGNiG Group, higher overheads and labor costs as well as creating a provision for realization of electricity agreements with customers from tariff G in Energa Group in the amount of PLN (-) 0,9 bn.

Retail: increase by PLN 0,1 bn (y/y) due to positive macro at lower sales volumes and higher costs of running fuel stations.

Upstream: increase by PLN 6,1 bn (y/y) due to consolidation of results of acquired Lotos Group and PGNiG Group in the amount of PLN 6,1 bn, positive macro impact and higher sales volumes.

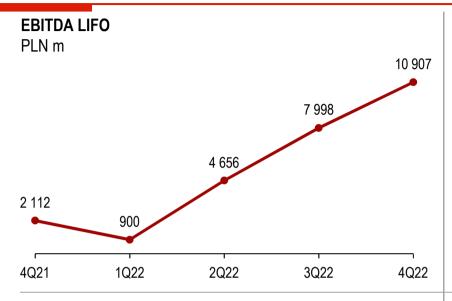
Gas: PLN (-) 2,2 bn (y/y) as a result of consolidation of acquired PGNiG Group.

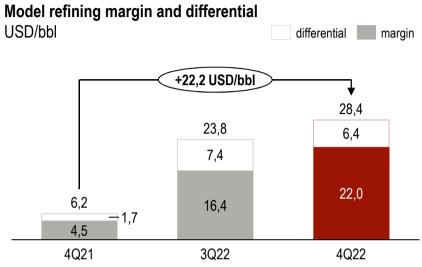
Corporate functions: higher costs by PLN 0,4 bn (y/y) due to the increase in the scale of ORLEN Group's operations.

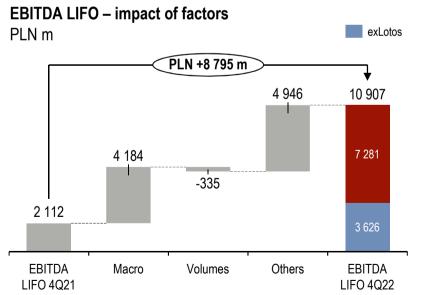
Refining – EBITDA LIFO



Positive impact of macro and results consolidation of acquired Lotos Group





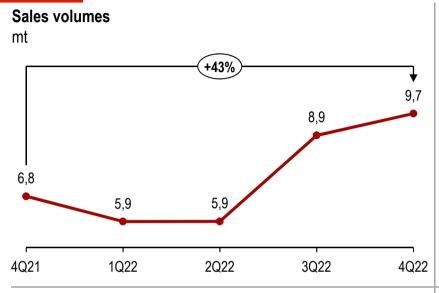


- Positive macro impact (y/y) limited by negative impact of valuation of CO2 contracts, higher internal costs as a result of crude oil price increase.
- Higher sales volumes by 43% (y/y), of which:
 - higher sales volumes of gasoline by 30%, diesel by 53%, LPG by 61%, aviation fuel JET by 40% at lower sales of HSFO by (-) 3%.
 - higher sales volumes in Poland by 75%, in the Czech Rep. by 14% and in Lithuania by 3%.
 - reduction of REBCO throughput and replacement with more expensive Arab and North Sea crude oils.
- Others, of which mainly: results consolidation of acquired Lotos Group, negative impact of usage of historical inventory layers, higher overheads and labor costs.

Refining – operational data



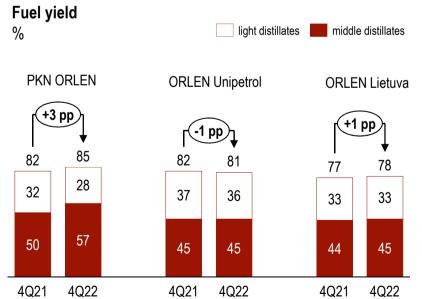
Higher throughput and sales mainly due to results consolidation of acquired Lotos Group ORLEN



Crude oil throughput and utilization ratio mt, %

Throughput (mt)	4Q21	3Q22	4Q22	(y/y)
PKN ORLEN	4,1	6,0	6,6	2,6
ORLEN Unipetrol	1,9	2,0	2,1	0,1
ORLEN Lietuva	2,5	2,4	2,5	0,0
ORLEN Group	8,6	10,5	11,2	2,7

Utilization (%)	4Q21	3Q22	4Q22	(y/y)
PKN ORLEN	99%	102%	98%	-1 pp
ORLEN Unipetrol	88%	93%	94%	6 рр
ORLEN Lietuva	96%	91%	96%	0 pp
ORLEN Group	96%	98%	98%	2 pp

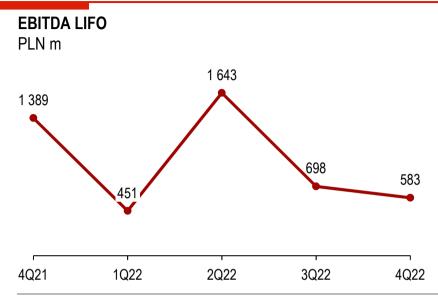


- Crude oil amounted to 11,2 mt, i.e. increased by 2,7 mt (y/y), of which:
 - PKN ORLEN higher throughput by 2,6 mt (y/y) as a result of including throughput of Gdańsk refinery in the amount of 2,8 mt at a lower throughput of Płock refinery by (-) 0,2 mt (y/y) as a result of CDU VI unit shutdown (November-December 2022) and lack of availability of H-Oil unit as a result of the failure from September 27, 2022. Higher fuel yield by 3 pp (y/y) mainly due to high yields in Gdańsk refinery at lower fuel yields in Płock refinery due to shutdown of H-Oil unit.
 - ORLEN Unipetrol higher throughput by 0,1 mt (y/y) as a result of positive impact of macro environment.
 - ORLEN Lietuva comparable crude oil throughput (y/y). No significant
 maintenance shutdowns of installations. Higher fuel yield by 1 pp (y/y)
 as a result of lower share of high sulphur crude oils in the throughput
 structure (no REBCO).

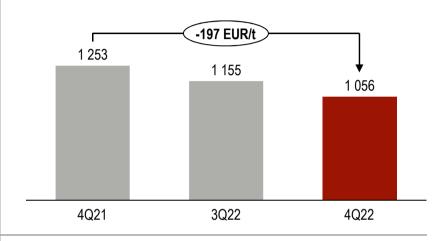
Petrochemicals – EBITDA LIFO

Negative impact of macro and lower sales volumes

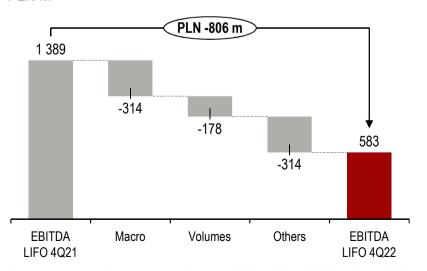




Model petrochemical margin EUR/t



EBITDA LIFO – impact of factors PLN m



- Negative macro impact (y/y) as a result of lower margins on olefins, polyolefins and PVC, weakening of EUR against USD and valuation of CO2 contracts.
- Decrease in sales volumes by (-) 12% (y/y), including: lower sales of olefins by (-) 23%, polyolefins by (-) 2%, fertilizers by (-) 22%, PVC by (-) 26% with higher PTA sales by 28%.
- Others include mainly: negative impact of usage of historical inventory layers, higher overheads and labor costs.
- EBITDA LIFO includes:
 - PLN 168 m of Anwil result; i.e. a decrease of (-) 40% (y/y).
 - PLN (-) 51 m of PTA result; i.e. an increase of PLN 11 m (y/y).

Petrochemicals – operational data

Lower utilization as a result of market challenges



Sales volumes mt



Utilization ratio %

Petchem installations	4Q21	3Q22	4Q22	(y/y)
Olefins (Płock)	93%	72%	78%	-15 pp
BOP (Płock)	80%	64%	67%	-13 pp
Metathesis (Płock)	70%	0%	14%	-56 pp
Fertilizers (Włocławek)	64%	49%	47%	-17 pp
PVC (Włocławek)	82%	68%	65%	-17 pp
PTA (Włocławek)	52%	65%	70%	18 pp
Olefins (ORLEN Unipetrol)	92%	73%	77%	-15 pp
PPF Splitter (ORLEN Lietuva)	96%	80%	89%	-7 pp
•				

Sales volumes – split by product

kt

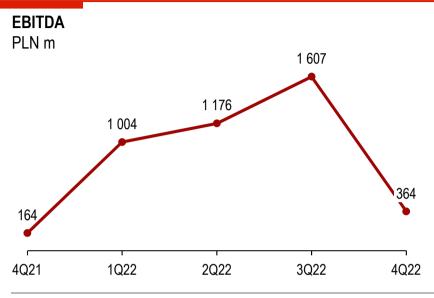
Monomers	Polymers	Aromatics	Fertilizers	Plastics	PTA
269 206	165 161	99 96	257 201	91 67	+28% +120 94
40214022	40214022	40214022	40214022	40214022	40214022

- Utilization ratio of petrochemical installations:
 - Olefins (Płock) lower utilization of the installation due to a decrease in demand.
 - BOP (Płock) lower utilization of the installation due to a decrease in demand.
 - Metathesis (Płock) shutdown of the installation in October and November 2022 due to a decrease in demand.
 - Fertilizers limited availability of the installation in October and November 2022 (Ammonia Plant).
 - PVC (Włocławek) continuing decline in demand for PVC and the impact of the extended technological shutdown in Q3 2022.
 - PTA (Włocławek) smaller scope of maintenance shutdowns (y/y) with limited demand.
 - Olefins (Unipetrol) work adapted to the availability of PE2/PE3 installations.
- Sales amounted to 1,1 mt. i.e. a decrease by (-) 12% (y/y), including: lower sales in Poland by (-) 12% mainly fertilizers as a result of maintenance shutdowns, PVC and olefins as a result of limited demand for products, in the Czech Rep. by (-) 11% as a result of lower sales of benzene, fertilizers and PVC, and in Lithuania by (-) 50% as a result of market challenges.

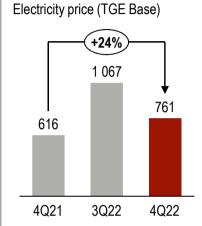
Energy – EBITDA

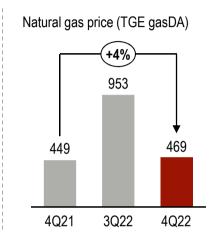
Positive macro impact at lower sales volumes

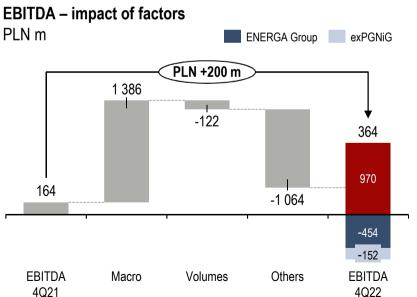




Electricity and natural gas prices PI N/MWh







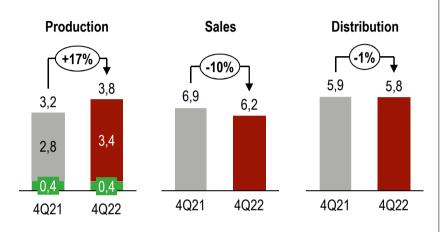
- Positive macro impact (y/y) and lower CO2 provision at negative impact of valuation of CO2 contracts.
- Negative volume effect (y/y) as a result of lower production and sales of electricity in CCGT Włocławek and CCGT Płock due to high natural gas prices. Additionally, lower volumes of energy generation, sales and distribution in the Energa Group.
- Others include mainly: provision for electricity contracts with customers from G tariff in Energa Group due to approval of the tariff for 2023 by the President of the Energy Regulatory Office and implementation of regulations on energy sales prices, results consolidation of acquired PGNiG Group and higher fixed costs and labor costs, partly offset by the sale of contracted but unused natural gas.
- Heating: increase in average selling prices of heat by PGNiG TERMIKA by 35% from November 29, 2022 (change in tariffs) with higher generation costs (y/y).

Energy – operational data

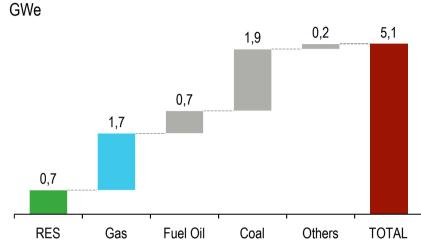
~ 50% of electricity comes from zero and low emission sources



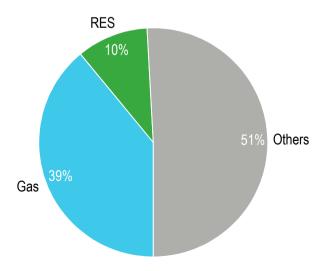
Electricity volumes TWh



Installed capacity



Electricity production by type of sources %

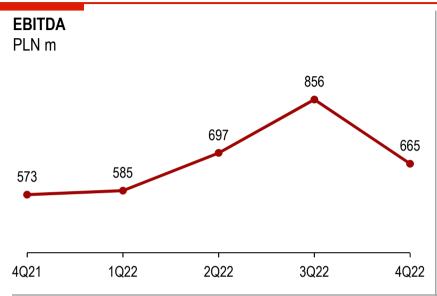


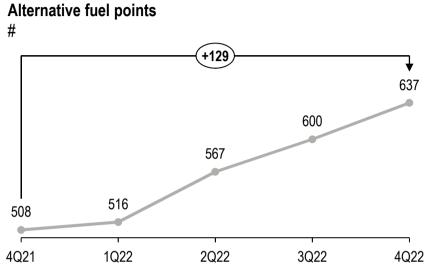
- Installed capacity: 5,1 GWe (electricity) / 13,5 GWt (heat).
- Production: 3,8 TWh (electricity) / 23,9 PJ (heat).
- 47% of heat comes from exPGNiG.
- Electricity production increased by 17% (y/y) as a result of including new generation units. Sales of electricity from exPGNiG production in 4Q22 amounted to 1,2 TWh, i.e. comparable level (y/y) with total sales of electricity from production in 2022 at the level of 4,4 TWh.
- Sales of electricity decreased by (-) 10% (y/y) as a result of lower wholesale and retail sales in Energa Group.
- Electricity distribution at a similar level (y/y).
- Heat sales by exPGNiG amounted to 14,1 TWh, i.e. comparable level (y/y) with the higher temperature by 1,4°C in the quarter.

Retail – EBITDA

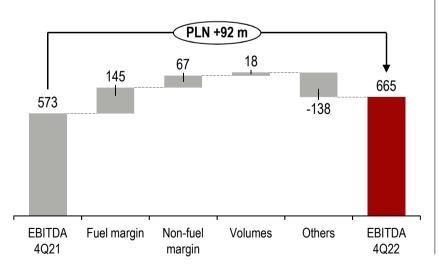
Lower sales volumes due to drop in demand in Germany







EBITDA – impact of factors PLN m



- Decrease in sales volumes by (-) 1% (y/y), including: higher sales of gasoline by 2% and LPG by 6% with lower sales of diesel by (-) 3%.
- Non-fuel locations increased by 169 (y/y).
- Increase in alternative fuel points by 129 (y/y). Currently, we have 637 alternative fuel points, including: 589 EV chargers, 46 CNG stations and 2 hydrogen stations.
- 1847 automated parcel machines; increase of 1471 (y/y).
- Others including mainly: higher operating costs of fuel stations (y/y).

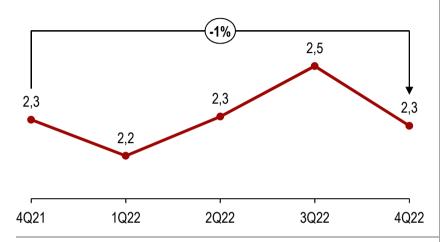
Retail – operational data



Entering Hungarian market due to realization of remedies related to acquisition of Lotos Group N

Sales volumes

mt



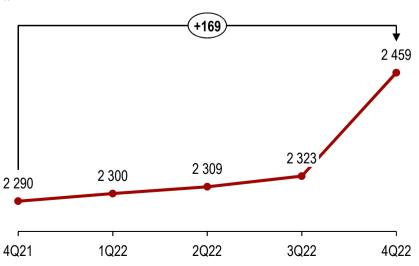
Number of fuel stations and market shares

#, %

		# stations	(q/q)	% market	(q/q)
	Poland	1 920	101	34,1	3,1 pp
	Germany	587	0	6,0	0,0 pp
	Czech Rep.	431	7	21,9	-2,6 pp
	Lithuania	29	0	4,1	0,0 pp
#	Slovakia	51	29	1,8	0,7 pp
	Hungary*	79	79	n/a	n/a

Non-fuel locations

#



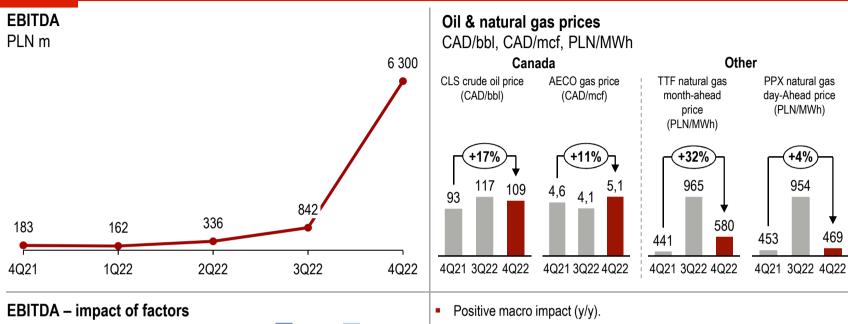
- Sales amounted to 2,3 mt, i.e. decrease by (-) 1% (y/y), including: higher sales in Poland by 6%, in the Czech Rep. by 5% and in Lithuania by 2% with lower sales in Germany by (-) 19%.
- 3097 fuel stations, i.e. increase by 216 (y/y), of which mainly in Poland and Hungary as a result of realization of remedies related to acquisition of Lotos Group and in Slovakia as a result of the launch and rebranding of self-service stations acquired from the local network.
- Market share increase in Poland and Slovakia with lower shares in the Czech Rep. (y/y).
- 2459 non-fuel locations, of which: 1847 in Poland (incl. 19 ORLEN w ruchu), 334 in the Czech Rep., 173 in Germany, 29 in Lithuania, 17 in Slovakia and 59 in Hungary.
- 637 alternative fuel points, including: 493 in Poland, 125 in the Czech Rep. and 19 in Germany.
- 7944 "ORLEN Paczka" locations in Poland, including: 1017 ORLEN fuel stations,
 780 RUCH kiosks, 4300 partner points, 1847 parcel machines.

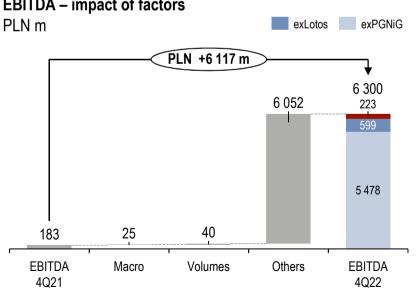
^{*} Targeted 144 fuel stations in Hungary. PKN ORLEN will gain over 7% market share in Hungary and will be the fourth concern on this market in terms of the number of fuel stations.

Upstream – EBITDA



Positive impact of results consolidation of acquired Lotos Group and PGNiG Group



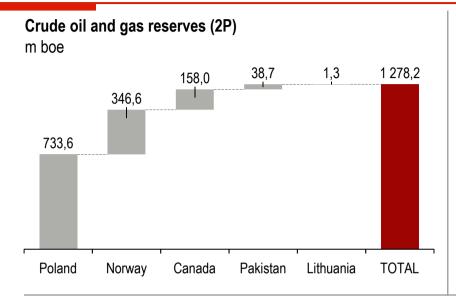


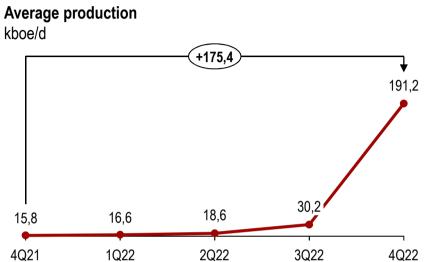
- Higher sales volumes by 73% (y/y), of which: higher sales of crude oil (7x), natural gas by 3% and NGL by 42%.
- Increase in average production by 175,3 kboe/d (y/y), i.e. 12x, of which: increase in production in Poland by 82,1 kboe/d, in Norway by 88,1 kboe/d, in Pakistan by 5,0 kboe/d and Lithuania by 0,4 kboe/d at a decrease in production in Canada by (-) 0,3 kboe/d.
- Others include mainly: results consolidation of acquired Lotos Group and PGNiG Group results in the amount of PLN 6,1 bn.

Upstream – operational data

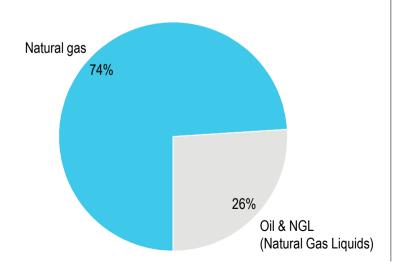


Operations scale-up as a result of consolidation of acquired Lotos Group and PGNiG Group LEN





Average production – share of hydrocarbons



Poland



2P reserves: 733,6 m boe (19% oil / 81% gas)
Average production: 83,1 kboe/d (23% oil / 77% gas)

Norway



2P reserves: 346,6 m boe (30% oil / 70% gas) Average production: 88,1 kboe/d (26% oil / 74% gas)

Canada



2P reserves: 158,0 m boe (58% oil + NGL / 42% gas) Average production: 14,6 kboe/d (49% oil + NGL / 51% gas)

Pakistan



2P reserves: 38,7 m boe (100% gas) Average production: 5,0 kboe/d (100% gas)

Lithuania



2P reserves: 1,3 m boe (100% oil)

Gas (distribution with trade & storage) – EBITDA

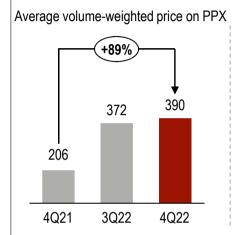


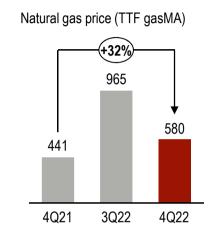


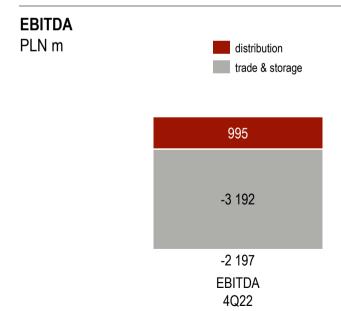
* Creation of Gas segment (distribution, trade & storage) due to results consolidation of acquired PGNiG Group from in November 2022.

EBITDA 4Q22* = PLN -2 197 m

Natural gas prices PLN/MWh

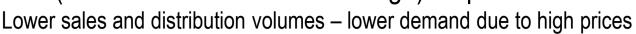






- EBITDA (trade & storage): PLN -3,2 bn, i.e. decrease by PLN 2,1 bn (y/y).
- EBITDA (distribution): PLN 1,0 bn, i.e. increase by PLN 0,4 bn (y/y).
- Segment's revenue from sales in November and December 2022: PLN 30,7 bn vs PLN 23,7 bn compared with the same period in 2021.
- Revenue from sales of gas: PLN 23,8 bn vs PLN 20,7 bn at higher sales price and lower sales volumes.

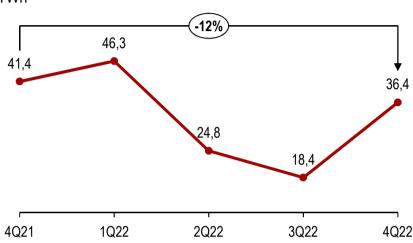
Gas (distribution with trade & storage) – operational data





Volumes of distributed gas

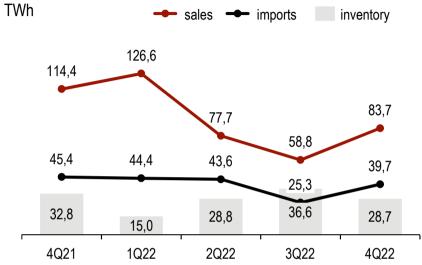
TWh



Distribution

- Gas distribution volumes: 36,4 TWh, i.e. down -12% y/y with higher average air temperature for the quarter by 1,4°C y/y.
- Tariff for gas distribution services applicable in 2022 higher by 3,6% compared to the tariff applicable in 2021.
- Tariff for gas distribution calculation formula: cost + return on capital.

Gas sales volumes, inventory levels* and imports



Trade & storage

- Gas imports to Poland in 4Q22: 39,7 TWh, 52% import's share of LNG.
 18 gas carriers unloaded at the Świnoujście Terminal: 6 deliveries under Qatargas contracts and 12 spot transaction.
- ORLEN Group's stocks of gas (in Poland and abroad)* was 28,7 TWh as at the end of 4Q22. Inventory levels of gas storage facilities in Poland as at the end of 4Q22: 97%.
- Retail tariff applicable in 2022 higher by 83,7% than the previous tariff; effect of compensation from the Price Difference Payment Fund for PGNiG OD on revenue from March 7th to December 30th of PLN 7,9 bn.
- Sales to the biggest customers, small & medium enterprises based on contracts and price lists, sales to households and protected customers based on tariff.

^{*} Includes high-methane gas, nitrogen-rich gas and LNG in terminals. Data on gas inventory does not include gas under the control of the OSP GAZ-SYSTEM and Governmental Agency for Strategic Reserves





Key facts



Market environment



Financial and operating results



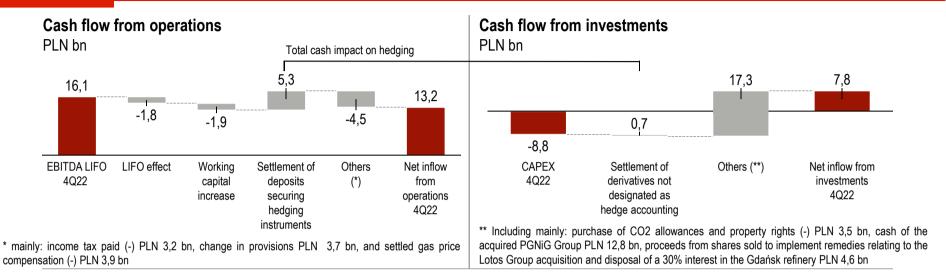
Financial situation

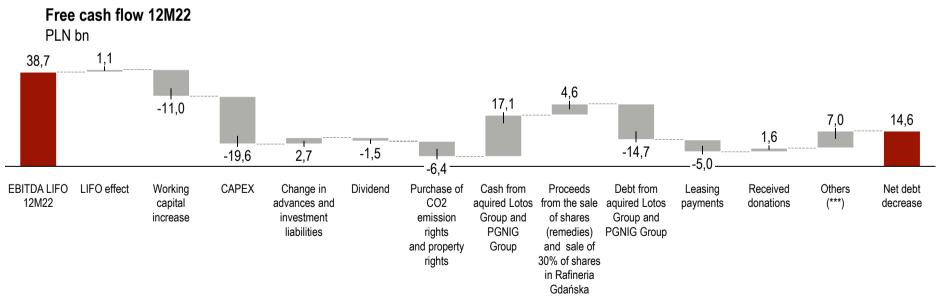


Outlook

Cash flow





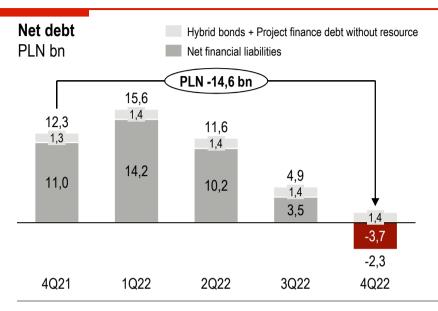


^{***} mainly: income tax paid PLN (-) 0,9 bn, interest paid PLN (-) 0,9 bn, purchase of shares less cash PLN (-) 0,9 bn, cash as at the determination date joint operation in the Gdańsk refinery PLN 0,4 bn, dividends received PLN 0,5 bn, settlement and valuation of derivative financial instruments PLN 3,5 bn, increases due to right-of-use assets PLN 2,0 bn, capital adjustments (-) 0 PLN 3 bn, change in provisions PLN 9,0 bn, provision for recultivation PLN 1 bn, settlement of grants for property rights PLN (-) 2,9 bn, valuation and revaluation of debt due to net exchange differences (-) 0,8 PLN bn, settlement of compensation received for gas prices PLN (-) 3,9 bn, result on the sale of 30% of the Gdańsk refinery PLN 0,5 bn

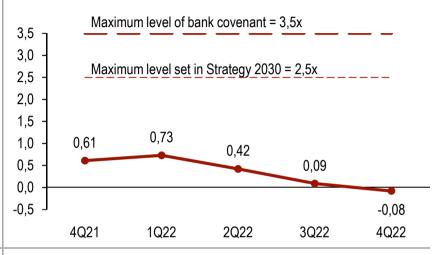
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Debt

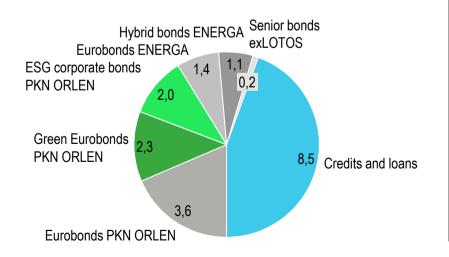




Net debt/EBITDA*



Gross debt – sources of financing PLN bn

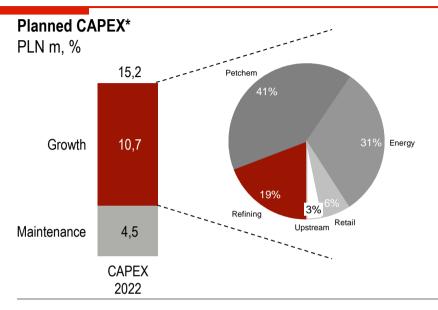


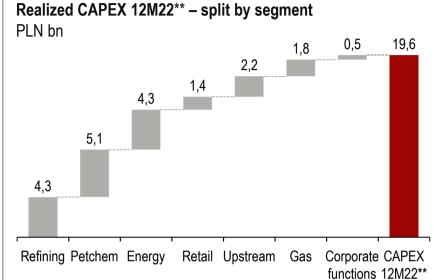
- Gross debt currency structure: EUR 58%, PLN 37%, USD 5%.
- Weighted average debt maturity: 2025.
- Investment grade: A3 stable outlook (Moody's), BBB+ stable outlook (Fitch). Rating upgrade by Moody's and Fitch to the highest level in the Concern's history due to effective realization of merger processes and strong financials of ORLEN Group.
- Net debt decrease by PLN 7,2 bn (q/q) mainly driven by positive net cash from operating activities of PLN 13,2 bn and positive net cash from investing activities of PLN 7,8 bn, with a negative impact of loan repayments of (-) PLN 12,6 bn and dividends paid of (-) PLN 1,5 bn.
- Obligatory reserves in the balance sheet at the end of 4Q22 amounted to PLN 11,9 bn, of which PLN 11,1 bn in PKN ORLEN and PLN 0,9 bn in ORLEN Lietuva.

^{*} The level of net debt adopted for the calculation of the ratio does not take into account project finance debt without recourse and hybrid bond issue

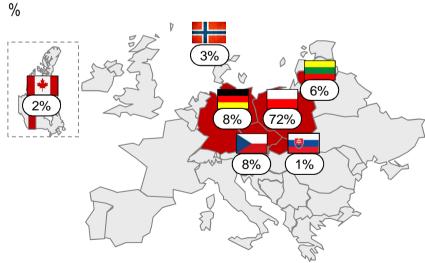
CAPEX







Realized CAPEX 12M22** – split by country



Main growth projects in 2022

Refining

- Construction of Hydrocracking unit Lithuania
- Construction of Bioethanol 2 Gen. unit ORLEN Południe
- Construction of HVO (Hydrotreated Vegetable Oils) Płock
- Construction of Visbreaking unit Płock

Petchem

- Expansion of olefins capacities Płock
- Expansion of fertilizers production Anwil

Energy

- Modernization of current assets and connection of new clients ENERGA Group
- Construction of CCGT Ostrołęka and CCGT Grudziądz
- Construction project of a wind farm in the Baltic Sea

Retail

- Growth of fuel stations network (> 30 stations)
- Growth of non-fuel sales network (> 30 locations of Stop Cafe/Star Connect)
- Introducing new services and products

Upstream

Poland /Canada – focus on the most promising deposits

*Planned CAPEX does not include planned expenditures of acquired Lotos Group and PGNiG Group. ** Realized CAPEX including acquired Lotos Group and PGNiG Group CAPEX 4Q22 amounted to PLN 8 836 m: Refining PLN 1 594 m, Petchem PLN 1 247 m, Energy PLN 1 704 m, Retail PLN 614 m, Upstream PLN 1 661 m, Gas PLN 1 809 m, CF PLN 207 m. CAPEX includes IFRS16 leasing.





Key facts



Market environment



Financial and operating results



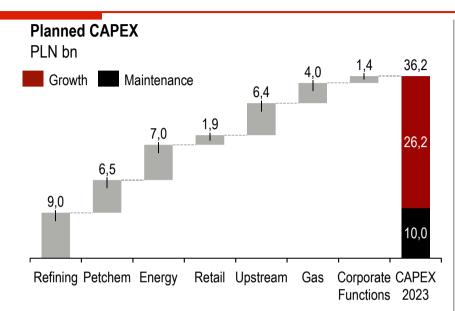
Financial situation



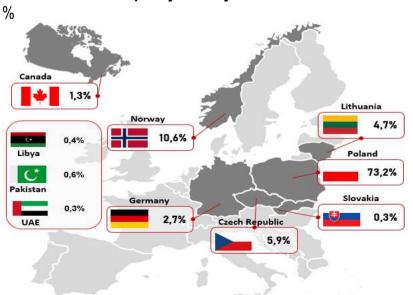
Outlook

Planned CAPEX for 2023





Planned CAPEX - split by country



Main growth projects in 2023



Refining

- Construction of Hydrocracking unit Lithuania
- Construction of Bioethanol 2 Gen. unit ORLEN Południe
- Construction of Visbreaking unit Płock
- Construction of HVO (Hydrotreated Vegetable Oils) Płock
- Construction of Hydrocracking Base Oils unit Gdańsk
- Construction of a sea terminal for transshipment of petroleum products on the Martwa Wisła – Gdańsk



Petchem

- Expansion of olefins capacities Płock
- Expansion of fertilizers production Anwil



Energy

- Modernization of current assets and connection of new clients ENERGA Group
- Construction of CCGT Ostrołęka and CCGT Grudziądz
- Construction of PV farms
- Construction project of a wind farm in the Baltic Sea



Retail

- Expansion of fuel stations and non-fuel sales networks
- Expansion of the alternative fuels network
- Automated Parcel Machines



Upstream

- Projects of PGNiG Upstream Norway and Lotos Norge
- Projects of ORLEN Upstream in Poland and Canada



Gas

Construction and upgrades of service lines – PSG

CAPEX includes IFRS16 leasing 27

Macro environment 1Q23 1Q23 data until 17 February 2023



		1Q22	4Q22	1Q23
Brent crude oil	USD/bbl	102	89	83
Model refining margin ¹	USD/bbl	6	22,0	19,2
Differential ²	USD/bbl	7,8	6,4	6,2
Model petrochemical margin ³	EUR/t	1 166	1 056	999
Natural gas price TTF month-ahead	PLN/MWh	465	580	281
Natural gas price TGEgasDA	PLN/MWh	477	474	305
Electricity price TGeBase	PLN/MWh	625	750	651
Refining products ⁴ - crack margins from quotations	_			
Diesel	USD/t	148	383	275
Gasoline	USD/t	187	251	291
HSFO	USD/t	-247	-311	-255
Petrochemical products ⁴ - crack margins from quotations				
Polyethylene ⁵	EUR/t	466	487	485
Polypropylene ⁵	EUR/t	655	438	442
Ethylene	EUR/t	664	606	628
Propylene	EUR/t	679	514	526
Paraxsylene	EUR/t	262	593	579
Average exchange rates ⁶				
USD/PLN	USD/PLN	4,13	4,64	4,38
EUR/PLN	EUR/PLN	4,63	4,73	4,72

⁽¹⁾ Model refining margin = revenues (93,5% Products = 36% Gasoline + 43% Diesel + 14,5% HHO) - costs (100% input: Brent crude oil and other raw materials). Spot quotations. (valid till 31.07.2022) Model refining margin = revenues (93,6% Products = 33% Gasoline + 48% Diesel + 13% HHO) - costs (100% input: 98% Brent crude oil + 2% natural gas). Spot quotations. (valid from 01.08.2022)

⁽²⁾ Differential calculated on the real share of processed crude oils. Spot quotations. (valid from 01.01.2022)

⁽³⁾ Model petrochemical margin = revenues (98% Products = 44% HDPE + 7% LDPE + 35% PP Homo + 12% PP Copo) - costs (100% input = 75% Naphtha + 25% LS VGO). Revenues contract quotations; costs spot quotations.

⁽⁴⁾ Margin (crack) for refining and petrochemical products (excluding polymers) calculated as difference between a quotation of given product and a quotation of Brent DTD crude oil.

⁽⁵⁾ Margin (crack) for polymers calculated as difference between quotations of polymers and monomers

⁽⁶⁾ Average exchange rates according to the data of the National Bank of Poland.

Market outlook





Macro

- Brent crude oil in 2023 we expect oil prices to drop (y/y) to 85-95 USD/bbl. The baseline scenario assumes OPEC+ is managing supply to support prices above 80 USD/bbl and mainland China is back on a growth path. S&P estimates that global oil demand growth will be 1,9 mbd in 2023, of which mainland China accounting for 1,1 mbd.
- Refining margin in 2023 we expect refining margins to decline (y/y) to ca. 11 USD/bbl. In the coming quarters fuel markets will return to equilibrium, which will be driven by a slowdown in economic activity on a global scale and gradual increase in supply of fuels from new refineries coming on stream in the USA, Africa, the Middle East and Asia. The excess of refining capacity over demand will restore the refineries' flexibility to react to changes in refining margins.
- Differential in 2023 we expect the differential to fall (y/y) to ca. 5 USD/bbl as a result of reducing share of REBCO in the throughput of ORLEN Group.
- Petrochemical margin in 2023 we expect a decrease in petrochemical margins (y/y) to ca. 1100 EUR/t as a result of a drop in demand for petrochemical products due to economic slowdown and maintained inflation.
- Natural gas in 2023 we expect a drop in natural gas prices (y/y) to ca. 200 PLN/MWh. Gas prices in the coming quarters will depend on weather conditions and geopolitical risks.
- Electricity in 2023 we expect a decrease in electricity prices (y/y) to ca. 450 PLN/MWh. The electricity market is characterized by high uncertainty the geopolitical situation, regulations and weather are the main factors affecting energy prices.



Economy

- GDP* Poland 0,4%, the Czech Rep. 0,1%, Lithuania 0,3%, Germany 0,2% (European Commission projections of February 15, 2023).
- Fuel consumption a decrease in demand for fuels and petrochemical products as a result of the economic slowdown.



Regulations

- EU embargo on fuel imports from Russia from 5 February 2023.
- Act on special protection of certain customers consuming gas gas write-down for the Price Difference Payment Fund in upstream of natural gas
 production in Poland (negative impact on the result of the Upstream segment) and inflows from compensation in gas sales and distribution in
 Poland resulting from setting the maximum price below tariffs (positive impact on the result of the Gas segment).
- National Index Target base level increase from 8,8 to 8,9% (reduced ratio for ORLEN Group is 5,8%).



Taxes

PLN 39,1 bn – taxes paid by PKN ORLEN S.A. in 2022.

Thank you for your attention



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Supporting slides

Results – split by quarter



PLN m	1Q21	2Q21	3Q21	4Q21	12M21	1Q22	2Q22	3Q22	4Q22	12M22	4Q/4Q	12M/12M
Revenues	24 562	29 423	36 442	40 914	131 341	45 447	57 804	72 996	102 262	278 509	61 348	147 168
EBITDA LIFO	2 425	3 171	4 299	4 259	14 154	2 786	8 204	17 503	24 256	52 749	19 997	38 595
LIFO effect	1 142	963	890	1 251	4 246	2 174	1 321	-553	-1 849	1 093	-3 100	-3 153
EBITDA	3 567	4 134	5 189	5 510	18 400	4 960	9 525	16 950	22 407	53 842	16 897	35 442
Depreciation	-1 311	-1 294	-1 328	-1 408	-5 341	-1 400	-1 447	-1 518	-2 529	-6 894	-1 121	-1 553
EBIT LIFO	1 114	1 877	2 971	2 851	8 813	1 386	6 757	15 985	21 727	45 855	18 876	37 042
EBIT	2 256	2 840	3 861	4 102	13 059	3 560	8 078	15 432	19 878	46 948	15 776	33 889
Net result	1 872	2 244	2 928	4 144	11 188	2 845	3 683	12 650	16 280	35 458	12 136	24 270

EBITDA LIFO – split by segment



PLN m	1Q21	2Q21	3Q21	4Q21	12M21	1Q22	2Q22	3Q22	4Q22	12M22	4Q/4Q	12M/12M
Refining, incl:	22	282	1 198	2 112	3 614	900	4 656	7 998	10 907	24 461	8 795	20 847
NRV	157	15	1	0	173	-4	3	-30	14	-17	14	-190
hedging	-402	-395	-193	-66	-1 056	-1 911	-2 558	729	-80	-3 820	-14	-2 764
valuation of CO2 contracts	193	260	159	567	1 179	-568	21	-175	125	-597	-442	-1 776
Petchem, incl:	872	1 021	1 013	1 389	4 295	451	1 643	698	583	3 375	-806	-920
NRV	36	-1	2	1	38	0	0	0	0	0	-1	-38
hedging	14	22	33	35	104	48	58	63	57	226	22	122
valuation of CO2 contracts	213	287	135	593	1 228	-614	23	-84	84	-591	-509	-1 819
Energy, incl:	1 259	1 215	1 042	164	3 680	1 004	1 176	1 607	364	4 151	200	471
hedging	0	0	0	-99	-99	50	-62	134	123	245	222	344
valuation of CO2 contracts	162	217	197	524	1 100	-543	21	128	68	-326	-456	-1 426
Retail	548	828	948	573	2 897	585	697	856	665	2 803	92	-94
Upstream, incl:	14	60	130	183	387	162	336	841	6 300	7 639	6 117	7 252
hedging	-63	-60	-11	-7	-141	-81	-24	15	3	-87	10	54
Gas,incl:	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-2 197	-2 197	-2 197	-2 197
hedging	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	141	141	141	141
valuation of CO2 contracts	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	116	116	116	116
Corporate functions	-290	-235	-32	-162	-719	-316	-304	5 508	7 640	12 528	7 802	13 247
Adjustments	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-5	-6	-11	-6	-11
EBITDA LIFO, incl:	2 425	3 171	4 299	4 259	14 154	2 786	8 204	17 503	24 256	52 749	19 997	38 595
NRV	193	14	3	1	211	-4	3	-30	14	-17	13	-228
hedging	-451	-433	-171	-137	-1 192	-1 894	-2 586	941	244	-3 295	381	-2 103
valuation of CO2 contracts	568	764	491	1 684	3 507	-1 725	65	-131	393	-1 398	-1 291	-4 905

Results – split by company



4Q22 PLN m	PKN ORLEN	ORLEN Lietuva	ORLEN Unipetrol	ENERGA Group	Others	ORLEN Group
Revenues	77 530	10 023	10 113	5 268	-673	102 261
EBITDA LIFO	18 173	782	1 678	-454	4 077	24 256
LIFO effect	-1 149	-303	-354	-	-43	-1 849
EBITDA	17 024	479	1 324	-454	4 034	22 407
Depreciation	650	49	313	292	1 225	2 529
EBIT	16 374	430	1 011	-746	2 809	19 878
EBIT LIFO	17 523	733	1 365	-746	2 852	21 727
Net result	15 263	355	818	-787	631	16 280

- ORLEN Lietuva EBITDA LIFO increased by PLN 603 m (y/y) as a result of positive (y/y) macro impact, including mainly increase in margins on light and middle distillates. Negative impact of reducing REBCO throughput by 80 pp (y/y) and replacing it with more expensive crude oil grades, use of historical inventory layers, lower trade margins, higher overheads and labor costs and costs of CO2 emissions.
- ORLEN Unipetrol EBITDA LIFO increase by PLN 1375 m (y/y) as a result of a positive (y/y) macro impact, including mainly U/B differential and margins on light and middle distillates as well as fertilizers. In addition, the positive impact of higher trade margins was partially limited by the negative impact (y/y) of the use of historical inventory layers and higher overheads and labor costs.
- ENERGA Group EBITDA decreased by PLN (-) 932 m (y/y) as a result of creating a provision for realization of electricity agreements with customers from tariff G in the amount of PLN 916 million (Sales Business Line) due to approval of the tariff for 2023 by the President of the Energy Regulatory Office and implementation of regulations on energy sales prices.
- PGNiG Group lack of business effects calculation due to incomparability of consolidation periods results consolidation of exPGNiG Group from November 2022 in the amount of PLN 3148 m.

Production data



ORLEN Group	4Q21	3Q22	4Q22	(y/y)	(q/q)	12M21	12M22	Δ
Crude oil throughput (kt)	8 553	10 449	11 234	31%	8%	29 919	37 090	24%
Utilization	96%	98%	98%	2 pp	0 pp	85%	94%	9 pp
PKN ORLEN 1								
Crude oil throughput (kt)	4 064	5 990	6 629	63%	11%	14 529	21 056	45%
Utilization	99%	102%	98%	-1 pp	-4 pp	89%	102%	13 pp
Fuel yield ⁴	82%	84%	85%	3 pp	1 pp	82%	84%	2 pp
Light distillates yield ⁵	32%	29%	28%	-4 pp	-1 pp	32%	30%	-2 pp
Middle distillates yield ⁶	50%	55%	57%	7 pp	2 pp	50%	54%	4 pp
ORLEN Unipetrol ²								
Crude oil throughput (kt)	1 933	2 040	2 054	6%	1%	7 123	7 467	5%
Utilization	88%	93%	94%	6 pp	1 pp	82%	86%	4 pp
Fuel yield ⁴	82%	81%	81%	-1 pp	0 pp	82%	81%	-1 pp
Light distillates yield ⁵	37%	35%	36%	-1 pp	1 pp	37%	36%	-1 pp
Middle distillates yield ⁶	45%	46%	45%	0 pp	-1 pp	45%	45%	0 pp
ORLEN Lietuva ³								
Crude oil throughput (kt)	2 470	2 350	2 465	0%	5%	7 954	8 241	4%
Utilization	96%	91%	96%	0 pp	5 pp	78%	81%	3 рр
Fuel yield ⁴	77%	79%	78%	1 pp	-1 pp	79%	80%	1 pp
Light distillates yield 5	33%	31%	33%	0 pp	2 pp	33%	32%	-1 pp
Middle distillates yield ⁶	44%	48%	45%	1 pp	-3 pp	46%	48%	2 pp

¹ Throughput capacity for PKN ORLEN is 26,8 mt/y [Płock (16,3 mt/y) and Gdańsk (10,5 mt/y)]. Consolidation of Lotos Group from August 2022.

² Throughput capacity for Unipetrol is 8,7 mt/y [Litvinov (5,4 mt/y) and Kralupy (3,3 mt/y)]. ³ Throughput capacity for ORLEN Lietuva is 10,2 mt/y.

⁴ Fuel yield equals middle distillates yield plus light distillates yield. Differences may occur from rounding.

⁵ Light distillates yield is a ratio of gasoline, naphtha, LPG production excluding BIO and internal transfers to crude oil throughput.

⁶ Middle distillates yield is a ratio of diesel, light heating oil (LHO) and JET production excluding BIO and internal transfers to crude oil throughput.

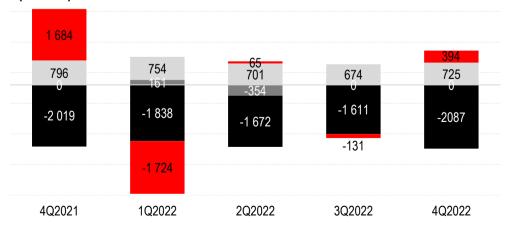
Effect of the operations related to reserve on CO₂ and valuation of CO₂ contracts on ORLEN Group consolidated financial results

Contracts portfolio for purchase of CO₂ emission rights in ORLEN Group and EUA balance on ORLEN Group accounts (mt)

Portfolios	Approach	to valuation	31.12.2021	31.03.2022	30.06.2022	30.09.2022	31.12.2022
Own contracts portfolio for purchase of emission rights*	Is not subject to fair valu sheet date	e valuation at the balance	2,30	1,52	2,04	0,14	3,74
EUA portfolio on ORLEN Group accounts (intangible	It is subject to fair value valuation at the	with Hedge Accounting (HA)	20,72	0,00	2,33	3,07	2,37
assets)**	balance sheet date	without Hedge Accounting (noHA)			2,33	3,91	1,66
EUA portfolio on ORLEN Group accounts (intangible assets)***	Is not subject to fair valu sheet date	e valuation at the balance	9,63	16,05	5,24	9,37	22,56

^{*} Own use contracts portfolio with physical delivery, not subject to fair value valuation.

Impact of activities related to CO2 on ORLEN Group consolidated financial result (PLN m)



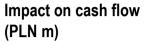
- Settlement and valuation of a CO2 futures "transaction" portfolio with HA (position: other operating income and expences)
- Settlement of subsidies for CO2 received for free (position: costs by type, taxes and fees)
- CO2 inventories revaluation (position: costs by type,taxes and fees)
- Creation / release of a provision for CO2 estimated emissions (position: costs by type,taxes and fees)

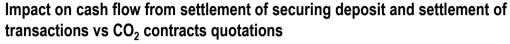
^{**} Transaction portfolio is valuated in accordance with the IFRS9 requirements. From 1st of July 2022, the Group started to apply hedge accounting (HA) regarding the EUA transactions, therefore Transaction portfolio was divided into instruments without HA, whose valuation and settlement is recognized in other operating profit and lost and instruments with HA, whose valuation is recognized in capital and the financial effect of settlement adjusts the purchase price of EUA contracts. (according to IFRS9)

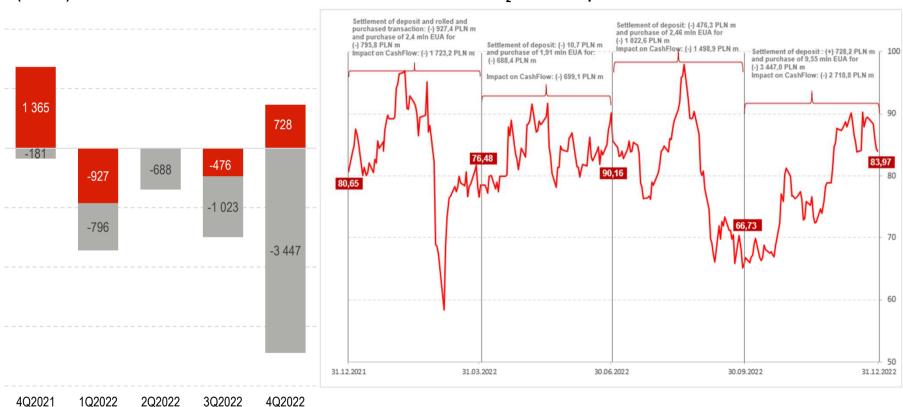
^{***} Recognized as intangible assets, which are not amortized and analyzed for impairment. Purchased rights valuated according to the purchase price, received for free in fair value fixed for registration on the account day less any write-offs for impairment.

Settlement of securing deposit and realization of CO2 contracts on cash flow









[■] Contract performance (acquiring rights)

[■] Settlement of margin deposit and transaction

Dictionary



Model refining margin = revenues (93,6% Products = 33% Gasoline + 48% Diesel + 13% HHO) - costs (100% input: 98% Brent crude oil + 2% natural gas). Spot quotations. (valid from 01.08.2022)

Model refining margin = revenues (93,5% Products = 36% Gasoline + 43% Diesel + 14,5% HHO) - costs (100% input: Brent crude oil and other raw materials). Spot quotations. (valid till 31.07.2022)

Differential calculated on the real share of processed crude oils. Spot quotations. (valid from 01.01.2022)

Model petrochemical margin = revenues (98% Products = 44% HDPE + 7% LDPE + 35% PP Homo + 12% PP Copo) - costs (100% input = 75% Naphtha + 25% LS VGO). Revenues contract quotations; costs spot quotations.

Fuel yield = middle distillates yield + gasoline yield. Yields are calculated in relation to crude oil.

Working capital (in balance sheet) = inventories + trading receivables and other receivables – trading liabilities and other liabilities

Working capital change (in cash flow) = changes in receivables + changes in inventories + changes in liabilities

Net debt = (short-term + long-term loans, borrowings and bonds) – cash

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