



Multi-utility ORLEN

Development of the company
in the years 2016-2023

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Letter from the president of the management board



Daniel Obajtek

President of the Management Board
Chief Executive Officer

Since the commencement of my mission at the ORLEN Group, I have operated under the steadfast belief that mediocrity is not an option. Only through embracing a trajectory of dynamic growth can we match the strides and even overtake the leaders and, over time, secure our place as a fully-fledged member of the premier league of major players. I can now proudly say that, through collective efforts – as ORLEN's success reflects the contributions of the finest specialists in Poland and the broader region – we have successfully achieved this goal.

The path we embarked upon several years ago to build the multi-energy group of the future remains unwavering. The momentum we have generated is irreversible, driven by the key objectives outlined in the updated ORLEN2030 strategy of 2023, which we consistently bring to fruition while providing regular updates on our progress.

It would not be an overstatement to assert that only a few companies in our region have such a significant impact on their external environment, an impact that is poised to become even greater in the years to come. We are aware of the challenges that await us in the future. Therefore, as the first oil company in Central Europe to announce the ambitious goal of achieving carbon neutrality by 2050, we are cognisant of the need for substantial investments. The scale of this commitment is well illustrated by the numbers – while as recently as 2016 we allocated PLN 4.7 billion to capital expenditure, the figure has risen to an impressive PLN 19.7 billion in 2022.

Yet, this is only a hint of the developments anticipated in the coming years. The Group's capital expenditure planned for 2023-2030 are projected to soar to PLN 320 billion, with a noteworthy 40% earmarked for green energy initiatives encompassing investments in offshore and onshore wind power, solar PV,

biogas and biomethane, biofuels, electromobility, and green hydrogen.

Additionally, we aim to operationalise the first small modular reactor (SMR) by the end of this decade. Last spring we announced plans to construct an entire SMR network, as we view renewables and nuclear capabilities as an opportunity to secure sustainable energy security for the people of Poland. We intensified efforts towards this end back in 2017, strategically avoiding the pitfalls encountered by others. Thanks to our emphasis on diversifying the directions of oil supplies, Poland achieved complete independence from Russian imports by the end of 2023.

We are carrying out, near Płock, construction of the Olefins 3 complex, currently the largest petrochemical project in Europe. Integral to the efforts of stabilising and developing our market has been a series of mergers – the acquisition of the fuel group LOTOS and a major player in the Polish natural gas market, PGNiG, in 2022. Two years earlier, the incorporation of the Energa Group into the ORLEN Group marked a milestone in our strategic evolution. These initiatives have garnered acknowledgment within our business environment, resulting in notable advancements in international ratings. However, while receiving recognition and awards is gratifying, it was not the primary motivation behind the activities undertaken several years ago. The foremost priority for us, now and moving forward, remains protecting our customers from the adverse impacts of global market dynamics, instability stemming from the pandemic, Russia's aggression against Ukraine, which had tragic consequences for us all, and conflicts in various parts of the world. Our ability to discharge this task stems from our early recognition, ahead of many others, of what was looming on the horizon. We proactively addressed the challenges of tomorrow while others struggled to grasp their implications.

We acknowledge the need to accelerate the growth of our non-fuel business, even as ORLEN maintains a robust performance in fuels. We consider change a responsibility. Hence, as we venture into new business domains, we stay connected to our roots. Looking ahead to 2030, our goal is to have a minimum of 3,500 progressively modern service stations under the ORLEN brand in Poland and across the region, many of them energy self-sufficient. We are expanding our retail operations in Germany, the Czech Republic, Lithuania, Hungary, and Slovakia. Our list of expansion countries has just joined Austria. The acquisition of 266 stations from Turmöl made us the third largest player in that market. We also invest in areas that were not traditionally linked with an energy company. We are becoming a prominent participant in the courier delivery market, concurrently modernising and expanding our network of retail outlets featuring food product and food service offerings. Our experts diligently explore innovative enterprises daily, aiming to offer comprehensive business development assistance to those with the most promising prospects. This will contribute to the comprehensive development of our country.

As a responsible manager, I recognise that conducting business must be intricately tied to profit generation, yet this is merely one aspect of the equation. Development and financial gains should never be ultimate goals; their significance lies in their contribution to the common good, particularly given the scale of ORLEN's operations. I take pride in highlighting that ORLEN stands as the foremost corporate income tax contributor in Poland. Our tax liability for 2022 amounted to a substantial PLN 4.37 billion, according to the Ministry of Finance's calculations. Just under a decade ago, in 2016, this figure stood at 1.14 billion. This serves as compelling evidence of the positive trajectory we are on. In the first six months of 2023, the Group paid PLN 36.5 billion in various charges and dues to the state budget and local governments. This money contributes to the modernisation and ongoing enhancement of the living standards of citizens throughout the country.

We invest our profits into supporting sports and culture. I purposefully use the term 'invest' because I firmly believe that every expenditure on the development of professional and youth sports will yield double returns in the future. Hence, beyond supporting the outstanding champions of sports arenas, we extend our care to athletes with disabilities. Our sports programmes reach out to

300,000 Polish children. In tandem with physical development, we prioritise social development, reflected in the increasing presence of our brand logo in various cultural institutions.

Last but not least, our greatest asset: the employees of the ORLEN Group. Everything mentioned above owes its realisation to the dedication of nearly 66,000 individuals who demonstrate daily that they comprehend the significance of embracing new challenges, surpassing the notion of 'impossible'. As confirmed by regular employee satisfaction surveys, working for ORLEN is a source of pride for our team. Personally, my pride stems from the privilege of working alongside all of you. Thank you, everyone.





01 Business environment overview



Dr. Adam B. Czyżewski
Chief Economist

The years 2016–2023 within the fuel and energy industry defy direct comparison with preceding periods. This timeframe was notably shaped by two prominent black swan events – the COVID-19 pandemic and Russia's aggression against Ukraine. Additionally, the ambition for carbon neutrality in the forthcoming decades exerted significant influence on industry dynamics. A predominant characteristic of the business environment has been unpredictability and increased susceptibility to change. Uncertainty has prevailed, with observable trends such as shortened pricing cycles and escalated interventionism, exemplified by instances such as government declarations initially disavowing a windfall tax, followed by its subsequent imposition.

In this challenging environment of unpredictable outcomes, the key priority is mitigating the risk of significant errors. Market participants now tend to embrace alternative scenarios reflecting their assumptions about future geopolitics and technology – whether it be cooperation versus conflict or the acceleration versus regression of energy transition. All this has significantly complicated the analysis of the business environment. Predicting future events is more challenging than ever before.

Nevertheless, this does not absolve us of the duty to persistently strive to understand and foresee future developments. Of course, a possible emergence of further unforeseen challenges, or 'black swans', will no longer come as a surprise, but this is beyond quantification and compilation. The years leading up to the 2016–2023 period were predominantly marked by uncertainty surrounding prices and margins, with strategies primarily revolving around investment plans within the confines of traditional operations, announced once every five years. In contrast, recent years are characterised as a period of 'tectonic' shifts in ORLEN's business environment, necessitating substantial and far-reaching adjustments.

What changed

One of the main changes witnessed in the industry was the conclusive resolution of concerns regarding the depletion of oil supply (peak oil). With active participation from oil companies and investors, a significant revolution transpired, shifting the uncertainty from fears of a supply collapse to concerns about an anticipated contraction in global demand for oil and liquid fuels. Given the extended investment cycles in the sector, this outlook effectively deterred investments in oil production and refining.

The emergence of new oil and gas extraction technologies, such as fracking and deepwater drilling, showcased their potential in 2014 and 2015. These advancements substantially augmented fuel supply, contributing to a decline in prices. The remarkable reduction in the onshore gas and oil production cycle, from 3–5 years to a mere 6–9 months, made possible a rapid response of production to price fluctuations, eroding the OPEC cartel's ability to effectively manage oil prices. As a result, the United States became the world's largest oil producer, with the average annual price of Brent crude oil in 2015–2021 ranging between USD 50 and USD 70 per barrel.

Simultaneously, an external shift significantly impacted the industry. Growing societal and political pressure to address climate change by curbing greenhouse gas emissions accelerated the development of renewable energy sources. Advancements in enhancing the energy efficiency of internal combustion engines, the evolution of alternative fuels, and the increasing share of electric drives in new vehicle sales initiated a transformative process, gradually displacing oil from the transport sector. The process accelerated by the year. The current estimates suggest that the peak demand for oil and liquid fuels will occur in the next few years, depending on the specific type of fuel.

Reduction is the future

The global refining industry has grappled with insufficient demand, driven by factors such as the rise in the share of fuels bypassing traditional refining processes (including gas condensates, propane, butane, biofuels), the growing prevalence of electric drives, enhanced efficiency of internal combustion engines, and a decline in oil and liquid fuel demand in OECD countries since 2005. This has accentuated a surplus of refining capacity worldwide, prompting a reduction process.

The industry has responded by closing more than 100 refineries with a total capacity exceeding 10 million barrels per day (mbd) since late 2008. Notably, this reduction process has a distinct geographical pattern, with over half of the closed capacities evenly distributed between North America and Europe. From 2017 to 2022, a total of 45 refineries worldwide, with a capacity of about 4.7 mbd, were shut down. However, nature abhors a vacuum, and as the space left by the former major players became vacant, new contenders appeared. Modern mega-refineries, progressively coming online in Africa, Asia, and the Middle East, and selling fuels in the Atlantic basin, have emerged as formidable competitors. This is particularly challenging for European refineries, operating in a stringent regulatory environment and facing constraints that do not carry as much weight in other parts of the world.

The pandemic and war in the East – not everything can be predicted

The COVID-19 pandemic dramatically decreased the demand for crude oil and liquid fuels. Since the onset of the pandemic in January 2020, an estimated refining capacity of nearly 4.7 mbd has been either permanently shut down or temporarily reduced. And what were the effects? The demand for oil and liquid fuels fell 4.6% in 2020 compared with 2019, an unprecedented decline, given that during the 2008–2009 crisis, demand had fallen by 1.8%. Subsequently, the equally unparalleled post-pandemic surge in demand for oil, liquid fuels, and natural gas (with oil and liquid fuel demand increasing by nearly 5% in the first half of 2021) collided with insufficient supply in the LNG market and a bottleneck in refining capacity, which had been substantially



reduced during the pandemic. The outcome was easy to predict. In September 2021, prices of fuels, including gas, coal and liquid fuels, shot up. The end of the pandemic by no means signified the end of challenges.

The war in Ukraine exacerbated the energy crisis, forcing Europe to reduce demand and explore alternative sources of supply beyond Russia. Successive sanctions imposed on Russia have further intensified the prevailing uncertainty. Operating at full capacity without reserves, the global refining industry struggled to address fuel supply shortages reflected in price increases. Market balance was achieved at elevated prices through a demand reduction compelled by economics. The situation in the oil market was different. The market absorbed strategic oil reserves from the US and OECD, and refineries, in spite of operating at full steam, did not respond to the drop in oil prices with increased demand. Consequently, the model refining margin, representing the difference between fuel prices and crude oil prices, expanded, and refiners offering scarce fuels witnessed unprecedented profits.

New realities and new opportunities

The anticipated decline in demand for oil and liquid fuels poses a serious and unprecedented strategic challenge for oil companies. However, these new risks come hand-in-hand with opportunities that did not exist before. The quest for additional revenue streams for European oil companies is now linked to regulatory mandates for reducing greenhouse gas emissions. This necessitates exploring solutions beyond the traditional refining of crude oil into fuel and significantly extends the strategic horizon to 2050.

The year 2050 holds particular significance as many oil companies have committed to achieving carbon neutrality by then. Executing such a strategy is an immense challenge, involving venturing into new business domains, which, in turn, requires developing new capabilities. Now more than ever, it is crucial to adopt a broad, strategic perspective on business and exercise patience in navigating these unprecedented changes. The rising significance of innovative technologies results in technological uncertainty, demanding prudent investment and management

strategies. These technologies necessitate decisions on investments today, with maturity expected in the next 20 years or beyond.

Technological uncertainty has been compounded by regulatory risks. In practical terms, this means that presently climate policy development processes are much like an experiment on a living organism, relying heavily on the trial-and-error method. Therefore, it is a growing imperative to develop expertise in regulatory impact assessment. Numerous examples underscore these challenges, including the difficulty in securing funding for investments in traditional areas like overhauls, necessary expansions, or upgrades. These hurdles have their source in the escalating importance of ESG considerations.

In a speech delivered in 1898, English politician Joseph Chamberlain remarked: 'I think that you will all agree that we are living in most interesting times. (...) I never remember myself a time in which (...) day by day brought us (...) new objects for anxiety.' Today, over 100 years later, these words remain as relevant as ever. When it comes to the fuel and energy industry, one could even venture an opinion that the old diagnosis falls short of capturing the current realities. However, it is crucial to maintain optimism and believe that competencies acquired during times of unrest represent a valuable asset that will yield returns in the years to come.





02 Evolution of ORLEN over the past eight years

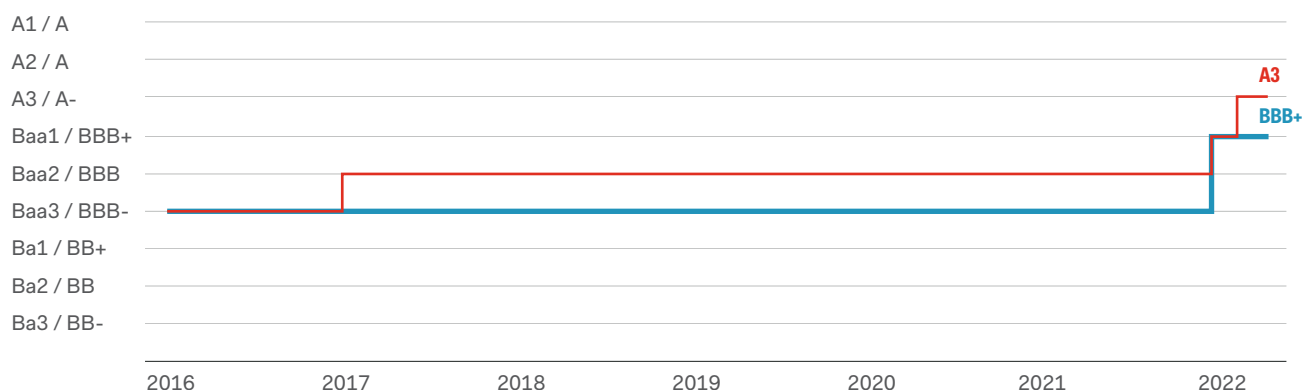
Over the past eight years, ORLEN has undergone a remarkable transformation into a versatile multi-utility group with a capacity to undertake major investments in the energy market. This strategic shift is aligned with the global trends of moving away from single-fuel energy sources towards a well-balanced mix, with a predominant share of renewables. Following the merger with PGNiG, we have achieved presence in the entire chain in the oil and gas industry, from upstream, through oil processing, all the way downstream to wholesale and retail.

The momentum and direction of ORLEN's evolution have garnered recognition not only within the Polish public but also, significantly, from European and global players. We have steadily ascended in international rankings: in the S&P Global Commodity Insights list of the Top 250 Global Energy Companies in 2022 ORLEN came up 37th, and in this year's Fortune 500 list of the world's 500 largest corporations we secured the 216th spot, outperforming, in terms of revenues, such giants as Airbus, IBM, and Bayer. This is a significant improvement from the 2015 ranking, where ORLEN held the 454th position. What is more, when the renowned US magazine unveiled its inaugural Fortune 500 Europe list in November 2023, ORLEN claimed the 44th place, emerging as the highest ranked Polish company.

Dynamics of ORLEN's ratings over the years

Published by:

— Moody's — Fitch Ratings



The ORLEN Group's global prominence helps us cultivate business partnerships in upstream, renewable energy and other areas. Our business stature has come on par with European giants like Repsol and ENI. As a multi-utility player, we are finally an attractive partner for multinationals, which facilitates the forging and expanding of business collaborations. This is crucial in today's landscape, where the sharing of involvement and investment risks in development projects is a vital need. The strategic partnership and potential joint projects with Saudi Aramco have propelled ORLEN into a distinctly new position among the world's energy leaders.

To leverage this emerging potential and maximise advantages, it is expedient to fast-track a profound integration of entities comprising the ORLEN Group. If this objective is achieved, we will be able to take full advantage of our segment-based management tools. One of the initial steps toward that integration, and one clearly evident to our external stakeholders, was taken in mid-2023 with the renaming of Polski Koncern Naftowy ORLEN S.A. to ORLEN S.A. The new name more accurately represents the wide-ranging activities of the multi-utility Group and its strategic development trajectory, which includes expansion into offshore wind energy, nuclear power, hydrogen, synthetic fuel production, and green petrochemicals. As such, it was well received by the market, becoming an important aspect of ORLEN's new corporate identity.

Group portfolio optimisation (examples):

- **2020 X**
 - | acquisition of 100% ownership interest in Unipetrol
- **2021 III**
 - | acquisition of 100% ownership interest in OTP, a road haulier company
- **2023 I**
 - | purchase of petrochemical assets from Basell Orlen Polyolefins

The successful acquisitions in recent years of the ENERGA Group, LOTOS Group and PGNiG Group, now prominent entities of the ORLEN Group, have delivered tangible business benefits. The value of synergies realised within the ORLEN Group is projected to reach PLN 20 billion over the next decade, surpassing the initial target of PLN 10 billion by 2032. These impressive outcomes have been enabled by the comprehensive PMI (Post Merger Integration) programme, developed in collaboration with an international team of experts to drive the Group's value creation. The PMI is aligned closely with our updated 2030 strategy, ushering in a complete transformation and integration across all areas of our business.

Financial highlights



Revenue (PLN billion)
2016: **79,6** 2022: **277,6**

Net profit (PLN billion)
2016: **5,7** 2022: **33,6**

Capex (PLN billion)
2016: **4,7** 2022: **19,7**

Upstream



Recoverable reserves
2016: **114 mboe**
2022: **1280 mboe**

Average daily hydrocarbon production
2016: **13,6 boe/d**
2022: **191,4 boe/d**

Crude oil throughput



Number of refineries
2016: **6 in 3 countries**
2022: **7 in 3 countries**

Refining capacity
2016: **35 million t/year**
2022: **45,7 million t/year**

Service stations



All service stations
2016: **2726** Q32023: **3153**

Service stations in Poland
2016: **1766** Q32023: **1915**

Service stations in foreign markets
2016: **960** Q32023: **1238**

Proportion of foreign service stations
2016: **35,2%** Q32023: **39,3%**

Number of EV charging stations in Poland
2016: **0** Q32023: **651**

Number of CNG refuelling stations
2016: **0** Q32023: **47**

Number of hydrogen refuelling stations
2016: **0** Q32023: **3**

Energy



Generation capacity
2016: **0,8 GWe** Q32023: **5,1 GWe**

Installed electrical capacity in gas-fired sources
2016: **0** Q32023: **1,7 GWe**

Installed electrical capacity in renewable sources
2016: **0 MWp** Q32023: **0,8 GWe**

Solar PV farms
2016: **0** Q32023: **9**

Wind farms
2016: **0** Q32023: **10**

Sports sponsorship



Athletes with disabilities
2016: **51** 2022: **4927**

Individual competitors
2016: **12** 2022: **100**

Sports clubs
2016: **15** 2022: **70**

Sports associations
2016: **3** 2022: **11**

Olympic committees
2016: **1** 2023: **2**

Charity



ORLEN charity (PLN million)
2016: **7,4** 2022: **288**

Group charity (PLN million)
2016: **10,9** 2022: **314**

Employees



Number
2016: **19,7 tys.** Q32023: **65,9 tys.**

2023 ~6,5

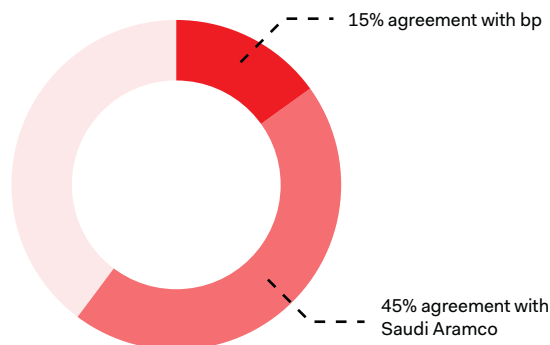
is a historic year in which Poland managed to become independent of Russian hydrocarbons

bcm of gas – ensured by concluded contracts and our own production in Norway in 2023

8



LNG carriers will ultimately be in the ORLEN Group's fleet



Entire ORLEN Group's oil demand

12%

share of electricity produced from RES in the third quarter of 2023

150.000

A city of 150,000 inhabitants - can be powered by energy generated by one SMR with a capacity of 300 MWe

10.000

thousand electric car chargers and 100 publicly available hydrogen charging stations ORLEN intends to have in its network by 2030

45 kg/h

of automotive-grade hydrogen - the capacity of the Trzebinia hydrogen hub

7,4 bln PLN

will allocate ORLEN for investments that enables production of 130 thousand tons per year of renewable hydrogen (to be achieved by 2030)



Locations important for the development of the biofuel business in the ORLEN Group



3.1 Contemporary challenges

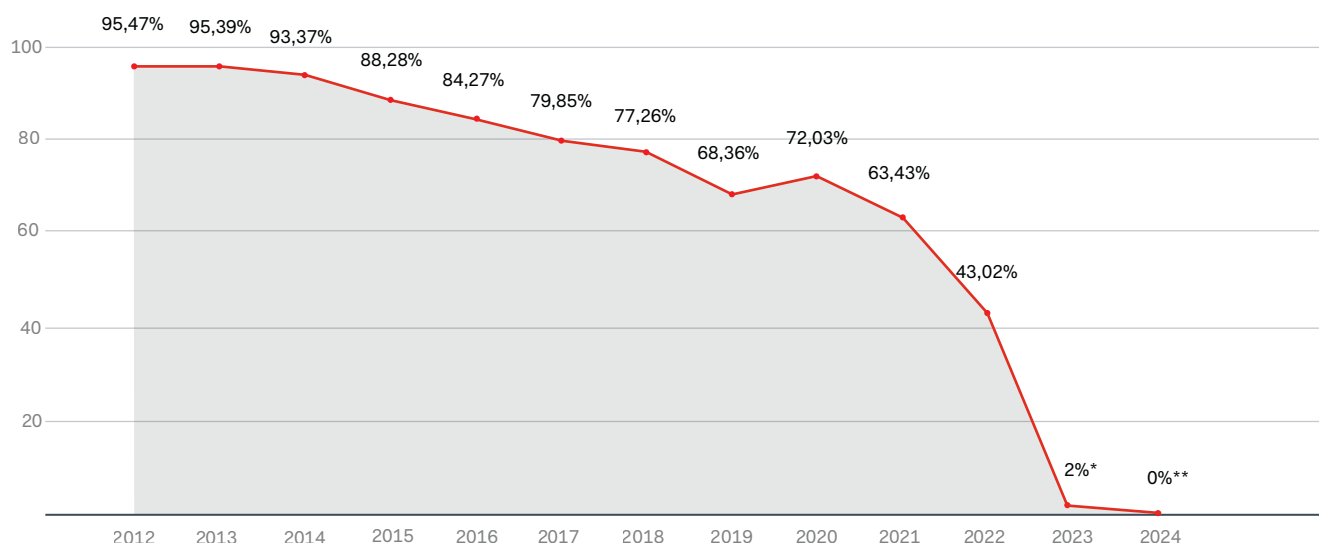
Energy security

The mergers of ORLEN with LOTOS and PGNiG led to the formation of a multi-utility group that is able to ensure energy security for Poland. This strategic decision to join forces played a pivotal role in ending Poland's dependence on Russian hydrocarbons. An important element of this process was the consistent diversification policy implemented in the ORLEN Group for many years.

Diversification of crude oil supplies

Between 2008 and 2015, the dominance of Russian crude oil in total imports to Poland was nearly absolute, accounting for almost 100%. However, in 2015 our responsible policy initiated a process leading to a complete reversal in this respect. From then, the share of Russian oil decreased at a fast pace, progressively reaching lower levels. By early 2023, it entirely vanished from the Polish market.

Share of Russian crude oil imports to Poland



* estimated data, the last contract for the supply of Russian oil via the "Przyjazn" pipeline to Poland was terminated at the end of March 2023
 ** forecast data

To ensure the continuity of oil processing in our refineries, it was to explore new supply markets. This is why we have proactively expanded our supplier base since 2015, and the current list stands as an impressive testament to the carefully thought-out and effective diversification policy.

Over the past years, we have forged robust and collaborative relationships with a number of new trading partners. By 2022, the crude slate run of our refineries comprised 19 grades sourced from 13 countries, including Saudi Arabia, Norway, the United Kingdom, the United States, Azerbaijan, Kazakhstan, Nigeria, Algeria, Libya, Guyana, Poland, and Lithuania.

It was through contracts with trusted partners that the ORLEN Group has ultimately achieved independence from Russian imports. The latest one, signed in 2022 with Saudi Aramco, ensured a substantial increase in crude oil supply from that producer. It was a significant value-added outcome of the merger with the LOTOS Group, where Saudi Aramco was one of the partners.

With the newly contracted deliveries, the volume of crude oil sourced from Saudi Arabia amounts to 20 million tonnes annually, representing about 45% of the integrated ORLEN Group's demand across our Polish, Czech and Lithuanian refineries. Furthermore, in June 2023, we signed a contract with the UK's BP for the supply of over 6 million tonnes annually of crude oil produced from North Sea deposits. The contract will cover about 15% of the entire ORLEN Group's demand.

Security of gas supply

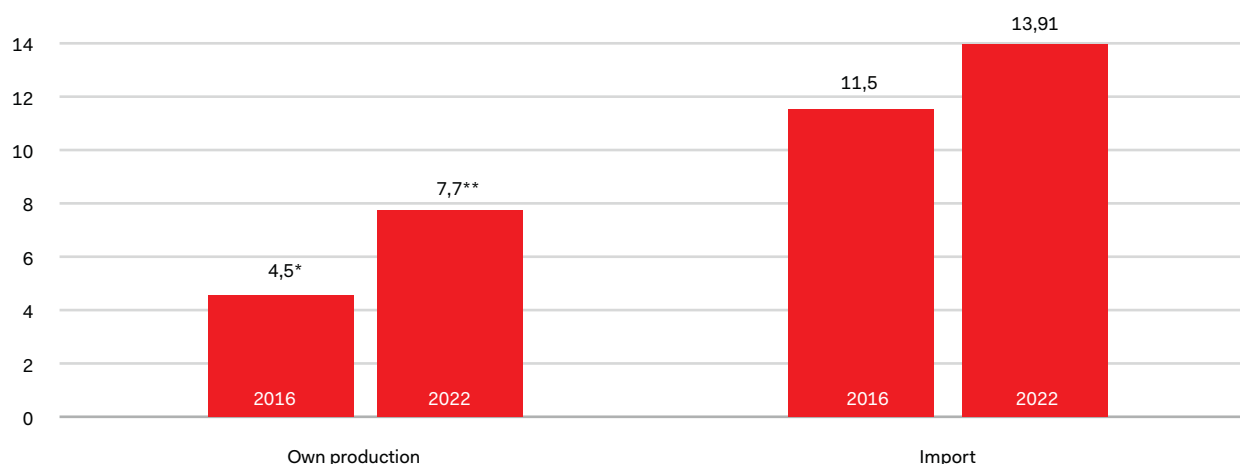
In 2015, PGNiG sourced nearly 90% of its imported gas from Gazprom, a Russian supplier. The pivotal moment for diversifying the supply mix took place in 2016, when the first commercial shipment of liquefied natural gas arrived at the President Lech Kaczyński LNG terminal, marking the commencement of a gradual journey towards the security of gas supply. By 2022, only approximately 20% of the annual gas supply originated from Russia.

The shift away from Russian imports occurred against the backdrop of extraordinary events, including Russia's military invasion of Ukraine and market manipulation by Gazprom – the largest gas supplier to the EU, which again resorted to threats to curtail gas supplies as a form of coercion, attempting to subjugate European countries to Russia and discourage support for the fighting Ukraine. Poland resisted this coercion and refused to pay for the imported gas in rubles. In response, Gazprom completely ceased gas supplies to Poland at the end of April 2022.

To meet the demand for gas, which stood at around 20 bcm per year before the outbreak of the military conflict in Ukraine, Poland had to initiate imports from other sources. Domestic production covers approximately one-fifth to one-quarter of the demand, necessitating the import of the balance. Meanwhile, as recently as 2021, over 60% (nearly 10 bcm) of the imported gas originated from Russia. Replacing such a significant volume with gas from an alternative source presented a formidable challenge, particularly as Russia began cutting off supplies also to other countries. Even those countries which, like Germany, Italy and France, succumbed to the coercion and agreed to pay for gas in rubles. The scarcity of gas in Europe led to unprecedented price spikes, reaching a maximum of EUR 300 per MWh by the late summer of 2022 – levels nearly eight times higher than the current market rates.



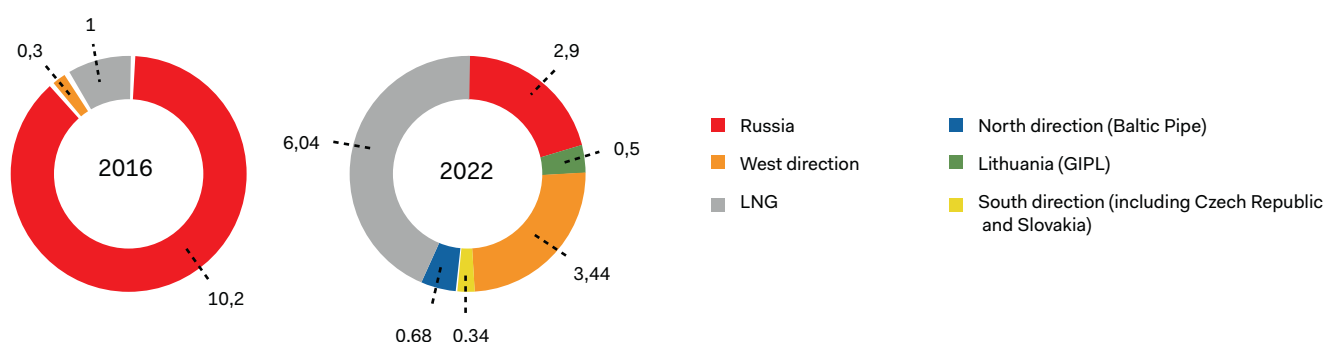
Structure of natural gas supply (in billion m3)



*PGNiG Group data

**Data from the ORLEN Group (including data from the PGNiG Group, ORLEN Upstream and the LOTOS Group)

Natural gas supplies to Poland from abroad (in billion m3)



Nevertheless, Poland managed to secure an adequate amount of gas to fully meet the demand. The share of LNG in Poland's gas imports surged to 43% in 2022, equal to approximately 6 bcm (compared with just under 9% in 2016, the first full year of the LNG Terminal's operation). The bulk of these supplies, totalling 3.4 bcm, originated from the United States, which thus became Poland's largest gas supplier.

Another landmark was the commissioning in September 2022 of Baltic Pipe – a gas pipeline system with an annual capacity of 10 bcm. Connecting Poland (via Denmark) with Norway, it became a crucial link to Europe's second largest gas supplier after Russia. However, for the pipeline to genuinely fortify Poland's energy security, contracts with gas suppliers were indispensable, and securing these proved to be particularly challenging. PGNiG, now part of the ORLEN Group, took charge of negotiating these crucial contracts. The positive outcome of the negotiations was largely an effect of the strategic plan to merge PGNiG with ORLEN – a robust multi-utility group with a stable financial position and diverse business portfolio, a compelling argument for the prospective suppliers.

As a result, contracts were successfully concluded ensuring, together with contributions from our own production assets in Norway, a combined supply of approximately 6.5 bcm of gas in 2023. Notably, 2023 will have marked the first full year without gas imports from Russia. The transition away from Russian supplies was effectively orchestrated by replacing them with American liquefied natural gas (LNG) and volumes delivered from Norway through the Baltic Pipe.

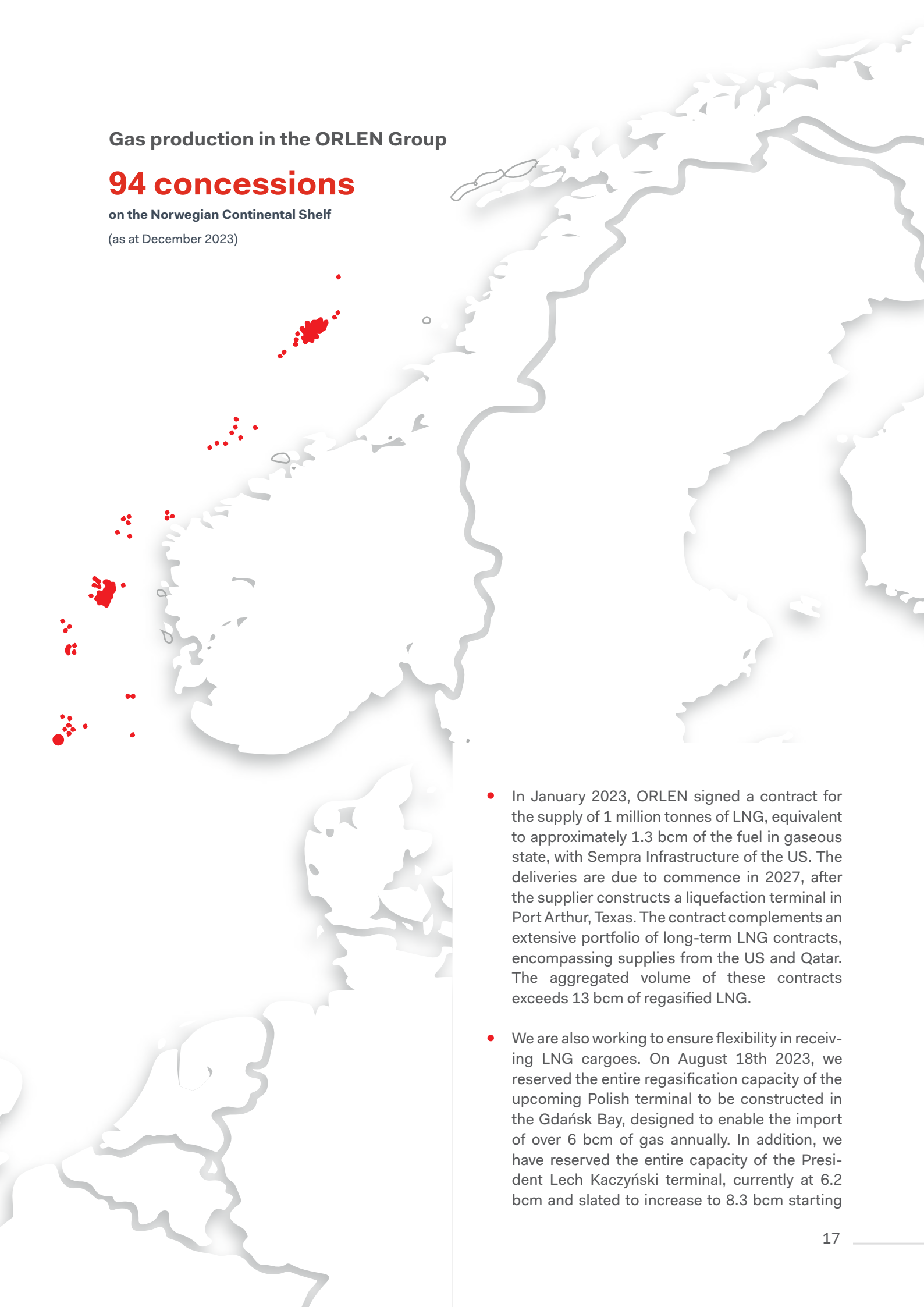
We have secured diverse sources of gas supply, guaranteeing full coverage for the demand of Polish consumers. Nevertheless, we remain committed to taking additional measures to bolster the country's energy security.

Gas production in the ORLEN Group

94 concessions

on the Norwegian Continental Shelf

(as at December 2023)

- 
- In January 2023, ORLEN signed a contract for the supply of 1 million tonnes of LNG, equivalent to approximately 1.3 bcm of the fuel in gaseous state, with Semptra Infrastructure of the US. The deliveries are due to commence in 2027, after the supplier constructs a liquefaction terminal in Port Arthur, Texas. The contract complements an extensive portfolio of long-term LNG contracts, encompassing supplies from the US and Qatar. The aggregated volume of these contracts exceeds 13 bcm of regasified LNG.
 - We are also working to ensure flexibility in receiving LNG cargoes. On August 18th 2023, we reserved the entire regasification capacity of the upcoming Polish terminal to be constructed in the Gdańsk Bay, designed to enable the import of over 6 bcm of gas annually. In addition, we have reserved the entire capacity of the President Lech Kaczyński terminal, currently at 6.2 bcm and slated to increase to 8.3 bcm starting

next year. In September 2023, it received its 250th delivery of LNG, marking a remarkable milestone with a cumulative volume surpassing 20 million tonnes.

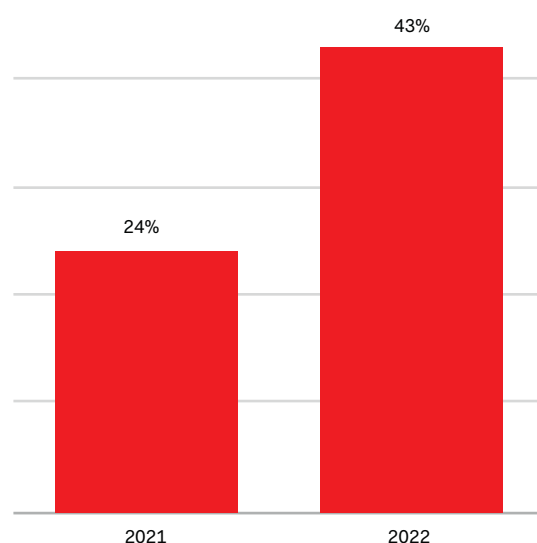
- Moreover, the ORLEN Group is reserving a portion of the capacity available at the LNG terminal in Lithuania's Klaipėda. This move will additionally strengthen Poland's energy security – the gas delivered for ORLEN to Klaipėda, totalling almost 0.9 bcm to date, can be seamlessly redirected to Poland via the new interconnector between Poland and Lithuania inaugurated last year.
- We are also actively investing in the expansion of our own gas production. In Poland, where gas reserves are limited, the objective is to sustain production at approximately 3.5-4 bcm. The more promising avenue for production growth lies in Norway. Following the acquisition of the upstream company KUFPEC Norway in November 2023, we anticipate a notable surge in our output of Norwegian gas by one-third, to over 4 bcm annually. As envisaged by the ORLEN2030 strategy, we aim to ramp up our production in Norway to 6 bcm by the end of this decade, constituting a half of our total self-produced gas. This means that the gas sourced from our own production will fill nearly all of the reserved capacity of the Baltic Pipe, which stands at just over 8 bcm per year, further bolstering Poland's gas security.
- Critical to ensuring a reliable gas supply is the presence of storage facilities. We currently own and operate seven underground storage sites, collectively capable of storing up to 3.4 bcm of gas. These facilities play a crucial role during periods of heightened gas demand (such as in winter, where volumes withdrawn from storage supplement imported supplies and domestic production) or in crisis situations, such as damage to a major import pipeline (historically, concerns were centred around potential supply cutoffs by Russia). Recognising the importance of storage capacity, we are proactively planning its expansion. We are now gearing up for investment in the Wierchowice Underground Gas Storage Facility, intending to increase its capacity from 1.3 to 2.1 bcm. Upon completion of this project, Poland's overall gas storage capacity will increase by a quarter.

Fleet of LNG carriers

LNG is a crucial element of our strategy for diversifying the directions and sources of natural gas supply for Poland. The proportion of seaborne deliveries in the ORLEN Group's gas imports has been progressively on the rise.

In 2021, LNG accounted for merely 24% of our total imports, amounting to 3.94 bcm. In the span of just one year, the share of LNG surged to 43%, with volumes soaring to 6.04 bcm. This remarkable 50% increase establishes liquefied natural gas as the predominant foreign energy source for the ORLEN Group

Share of LNG in imports

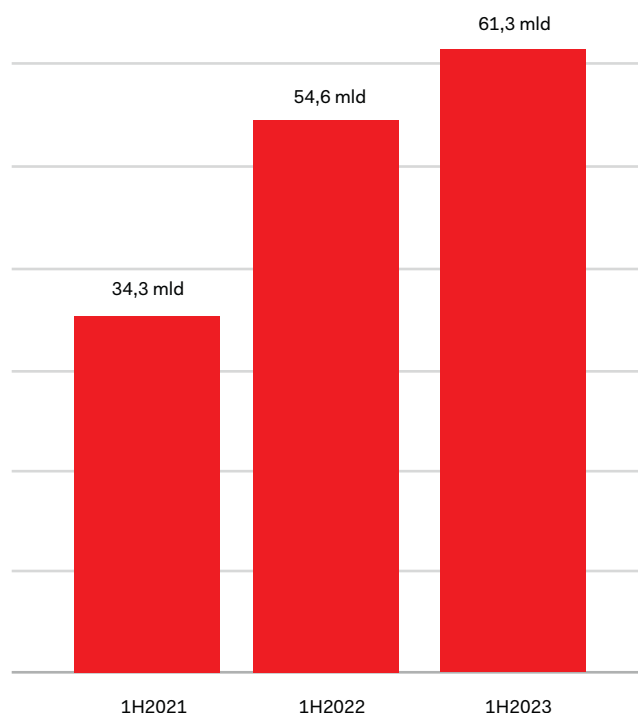


The outbreak of the war in Ukraine, coupled with the halt in gas supplies to Europe from the eastern direction, has led to a substantial growth of demand for LNG within the region.

In the first half of 2022, imports of liquefied natural gas into the EU reached 54.6 bcm, a significant increase from 34.3 bcm in the same period of 2021. This upward trend continued into 2023, witnessing LNG deliveries totalling 61.3 bcm in the first half of this year – a 79% increase compared with the same period of 2021.

The mounting demand for LNG has resulted in reduced availability of gas carriers in the market, pushing up freight costs. Against this backdrop, entities like the ORLEN Group, equipped with their own dedicated transport facilities, have been able to seize a competitive edge. The possession of specialised LNG carriers enables us to receive gas directly from liquefaction terminals, which streamlines supply planning, reducing reliance on external shipowners.

LNG volume imported to European Union countries



8
units

10
10 years of charter

70
thousand tons
of LNG capacity

Our fleet is being built based on long-term charter arrangements. Each vessel has been chartered for ten years, extendable as needed. Throughout this term, the ships will remain at the exclusive disposal of the ORLEN Group. Given the long charter duration, we have the right to give our own names to the vessels.

We are successively expanding our fleet through the addition of advanced LNG carriers. Two of them ('Lech Kaczyński' and 'Grażyna Gęsicka') have already commenced sea service and made their first deliveries of US-sourced LNG to Świnoujście. Additionally, 'Saint Barbara' and 'Ignacy Łukasiewicz' have also joined the fleet later in 2023.

Ultimately, the total count of vessels in the ORLEN Group's fleet will be brought to eight.

Each vessel will have a capacity of approximately 70,000 tonnes of LNG, which equates to roughly 100 mcm of natural gas in gaseous state.

In terms of size, the gas carriers have been designed to navigate virtually any LNG terminal across the globe.

Furthermore, all the vessels have been equipped with solutions improving their energy efficiency and mitigating the environmental impact.



3.2 Contemporary challenges

Journey toward carbon neutrality

Our heightened awareness of challenges associated with the decarbonisation process is translating into concrete actions. They are grounded in a profound understanding of the regulatory trends, as manifested in the Fit for 55 package or the EU Taxonomy, but also of the various considerations, spanning business, finance and technology, that may bear on our plans to reduce carbon emissions.

In 2020, ORLEN took the lead, becoming the first energy company in Central Europe to declare its ambitious target of achieving carbon neutrality by 2050. Also in 2020, our development strategy until 2030 was unveiled, announcing investment plans worth PLN 140 billion. However, in view of the progressing climate change and dynamic geopolitical shifts, our strategy was subsequently updated. According to the updated document released at the end of February 2023, ORLEN will allocate PLN 120 billion solely to green investment projects, a substantial 40% of our total expenditures planned until 2030.

Yet, this is not the only strategic direction for ORLEN. The transformation plans encompass all areas of our business, with a primary focus on developing new business lines, including renewable energy, nuclear power, and alternative fuels.

Revvig up renewable energy

At the forefront of the ORLEN Group's updated strategy is the pursuit of low- and zero-carbon energy, as a mainstay of Poland's energy security and ability to sustain stable energy prices going forward. In the update of the strategy in 2023, ORLEN increased its ambitions in this area almost four times compared to the plans from 2020, up to 9 GW. A significant strategic focus is directed towards renewable sources, with ambitious plans to quadruple our renewable generation capacity to an impressive 9 GW. To achieve this ambition, we are investing in onshore and offshore renewable energy projects, both in Poland and abroad.

These investments encompass onshore and offshore wind, particularly in the Baltic Sea and North Sea, as well as ventures into solar photovoltaics, energy storage, and hydropower. Our strategic plans are aligned with the objectives of Poland's updated Energy Policy until 2040, according to which zero-carbon energy sources are to satisfy more than 50% of total domestic consumption by the end of this decade, their aggregate capacity in excess of 50 GW.

● Onshore

The development of onshore wind energy generation at the ORLEN Group began with the merger with Gdańsk-based Energa. In July 2020 we have launch a wind farm in Przykona, Province of Poznań. The 31 MW project, with energy offtake contracted until 2034, was constructed on post-mining land.

Energa's portfolio already included a number of other wind farms: the Bystra WF (24 MW) in the Province of Gdańsk, as well as the Karcino WF (51 MW), Karścino WF (90 MW), Myślino WF (20 MW) and Parsówek WF (26 MW) – all located in the Province of Szczecin.

The momentum continued with the acquisition of more wind assets in 2021. This time, ORLEN Wind 3 purchased the Kanin WF (20 MW) in the Province of Szczecin, as well as three farms in the Province of Gdańsk: Nowotna WF (40 MW), Kobylnica WF (41.4 MW) and Subkowy WF (8 MW).

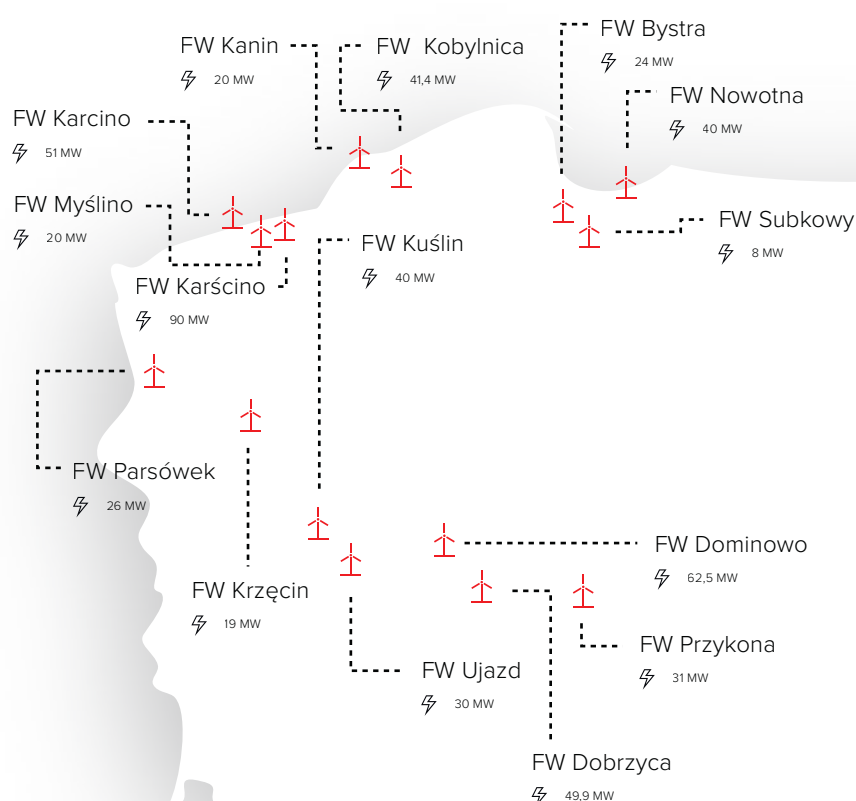
At the end of 2022, ORLEN Group has already had 0.65 GW of installed capacity in renewable energy sources. Fast-forward to mid-2023 and the company's growing wind portfolio received another boost. In June, Energa Wytwarzanie signed a preliminary agreement to purchase a wind farm and four solar PV systems. The renewable energy projects to be purchased are located in the Province of Poznań. One of them is the Sompolno hybrid project, a combination of 26 MW wind turbines and a 10 MW photovoltaic array.



This solution enables making the most of existing connection conditions by linking the new asset to a service line which is already in place and operational. Cable pooling works particularly well for connecting wind and photovoltaic farms, as they seldom operate at full capacity simultaneously. The project is expected to achieve full operational readiness by June 2024.

Additionally, in October 2023 a transaction was concluded in which we purchased three more wind farms in the Province of Poznań: Ujazd WF (30 MW), Dobrzyca WF (49.9 MW) and Dominowo WF (62.5 MW). The transaction included an option to incorporate solar PV assets (with a capacity of up to 159 MW). Also in October 2023, ORLEN entered into a conditional agreement to purchase another two wind projects – Kuślin WF (Province of Poznań) and Krzęcin WF (Province of Szczecin), with a total installed capacity of about 40 MW and over 19 MW, respectively. The transaction is expected to be finalised later in 2023. October 2023 was also the time when Energa Wytwarzanie signed a preliminary agreement to acquire the special purpose vehicle Kleczew Solar & Wind, developing a project in the Municipality of Kleczew, Province of Poznań, with a total capacity of up to 334 MW (including up to 19.2 MW in wind turbines), based on a cable pooling arrangement.

Onshore wind farms belonging to the ORLEN Group (as at October 2023)



Contracts for c. 0.7 GW of additional capacity have been signed in 2023, contributing to a robust onshore capacity of over 1.5 GW within the ORLEN Group's renewable generation portfolio. Moreover, we are engaged in projects to develop, or are negotiating contracts for, an additional combined capacity of almost 4 GW. Upon successful completion of these efforts, the Group's installed capacity in onshore assets would be around 5.5 GW.



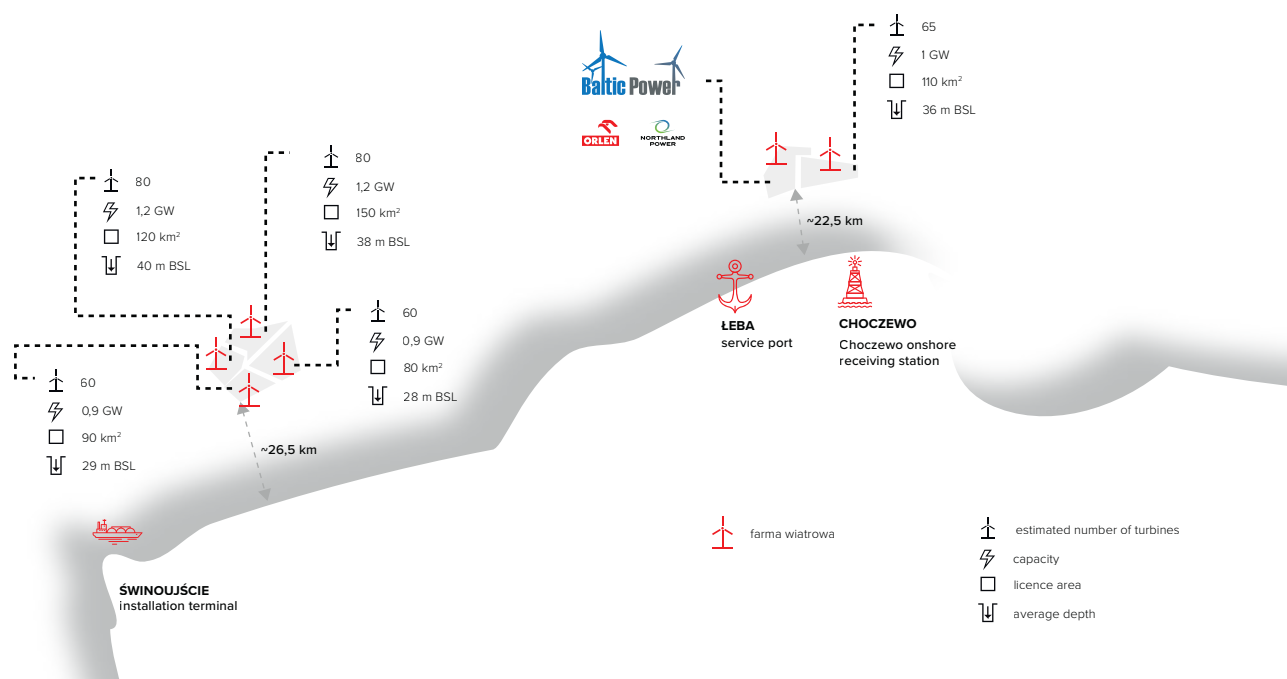
● Offshore

Embracing offshore wind power represents a crucial direction for the ORLEN Group's modern energy segment. In October 2023, the ORLEN Group reached the Final Investment Decision (FID) to build Baltic Power, Poland's first offshore wind farm. The project, set to bolster Poland's energy system through the addition of nearly 1.2 GW in 2026, will be pursued in partnership with Canada's Northland Power. Baltic Power will deliver sustainable energy to an estimated 1.5 million households. Moreover, as part of our ongoing efforts to facilitate offshore industry development, we have initiated the construction of an installation terminal in Świnoujście.

The Baltic Power farm will generate 4,000 GWh of electricity, equivalent to approximately 3% of Poland's current electricity output, generating carbon emissions savings estimated at 2.8 million tonnes annually. The foundation laying is scheduled to commence in 2024, with the farm expected to comprise 76 Vestas wind turbines with a unit capacity of 15 MW, standing at a height of over 250 metres, by 2025. The project's total budget is estimated at around EUR 4.73 billion.

In preparation for the project, extensive groundwork was laid, including wind measurements, environmental assessments and geotechnical investigations, informing the design work that followed. During the five and a half-year pre-development phase, seven construction permits were secured, requiring a total of more than 150 administrative approvals, sealed by 40 different institutions. The sheer scale of this undertaking is reflected in the farm's construction documentation, which totals more than 10,000 pages, with nearly 320,000 documents and studies produced by the Baltic Power team during the period.

Furthermore, as part of our commitment to advancing the offshore industry, the ORLEN Group is embarking on the construction of Poland's first offshore wind farm installation terminal. Executed by ORLEN Neptun and situated at the Port of Świnoujście, the terminal is slated for completion in 2025 and is set to be among Europe's most advanced facilities of its kind. With its wharves and storage yards, it will be capable of handling and installing state-of-the-art 15 MW or larger wind turbines. Initially catering to the Baltic Power project, it will subsequently support the implementation of projects by other developers and facilitate the ORLEN Group's future ventures in the Baltic Sea. Thanks to its location, the Świnoujście port will serve not only Polish projects but also ventures undertaken in German, Swedish, or Danish waters.



The ORLEN Group has recently achieved a significant milestone by securing licences for the construction of additional five offshore wind farms, set to collectively deliver 5.2 GW. Among the five licences, four are situated on the Oder Bank near Kołobrzeg, in the vicinity of the ORLEN Neptun terminal. The fifth one is situated on the Słupsk Bank, bordering the area where the Baltic Power farm is currently under construction. ORLEN Neptun is also the entity entrusted with responsibility for bringing these projects to fruition.

SMRs

Small modular reactors, or SMRs, are a source of cheap, green and safe energy. ORLEN have joined forces with Synthos, a Polish chemical company, establishing a new vehicle responsible for nuclear investments, ORLEN Synthos Green Energy (OSGE). The new entity's role is to implement the BWRX-300 technology developed by GE-Hitachi, involving water-cooled, natural circulation boiling water reactors with a capacity of 300 MWe. One such reactor could produce enough energy to power a city with a population of about 150,000.

A similar project is currently under way in Canada, scheduled for completion in 2028. It is being built about 50 km from Toronto, at the Nuclear Power Station in Darlington, and is to ultimately comprise four SMRs with a combined capacity of 1.2 GW. Globally, over 80 projects of this kind are being prepared or developed, with around 30 countries (from Africa to the Americas, to Asia and Europe) considering or actively integrating nuclear power into their energy mix.



Market estimates highlight the cost-effectiveness of SMRs, with the production cost of 1 MWh put at only EUR 114, compared with EUR 233 and EUR 164, respectively, in the case of coal-fired and gas-fired generation. Another remarkable fact is that a single 300 MWe SMR can help avoid emissions of 0.3 to 2 million tonnes of CO₂ annually.

Ensuring stringent safety standards, nuclear supervision in Poland is vested in the National Atomic Energy Agency, which collaborates with international counterparts and engages research institutes for analyses. The International Atomic Energy Agency (IAEA) has developed a set of tools to support countries in evaluating nuclear reactor designs and selecting optimal solutions.

A typical small modular reactor is placed about 30 m underground in a sealed vault filled with cooling water. SMRs incorporate passive safety features relying on natural forces or phenomena, which ensure automatic shutdown in the event of any issues, even in the absence of power supply.

Beyond their electricity output, the SMRs would also generate heat to support the district heating system. In a country where the heating network stands as one of Europe's longest, connecting over 40% of the 13.5 million households, SMRs present a transformative opportunity, as currently more than 70% of Poland's district heating relies on coal, necessitating a shift towards more sustainable alternatives. This means that small nuclear reactors can be instrumental in revolutionising the heating sector.

Potential locations



84%
Support

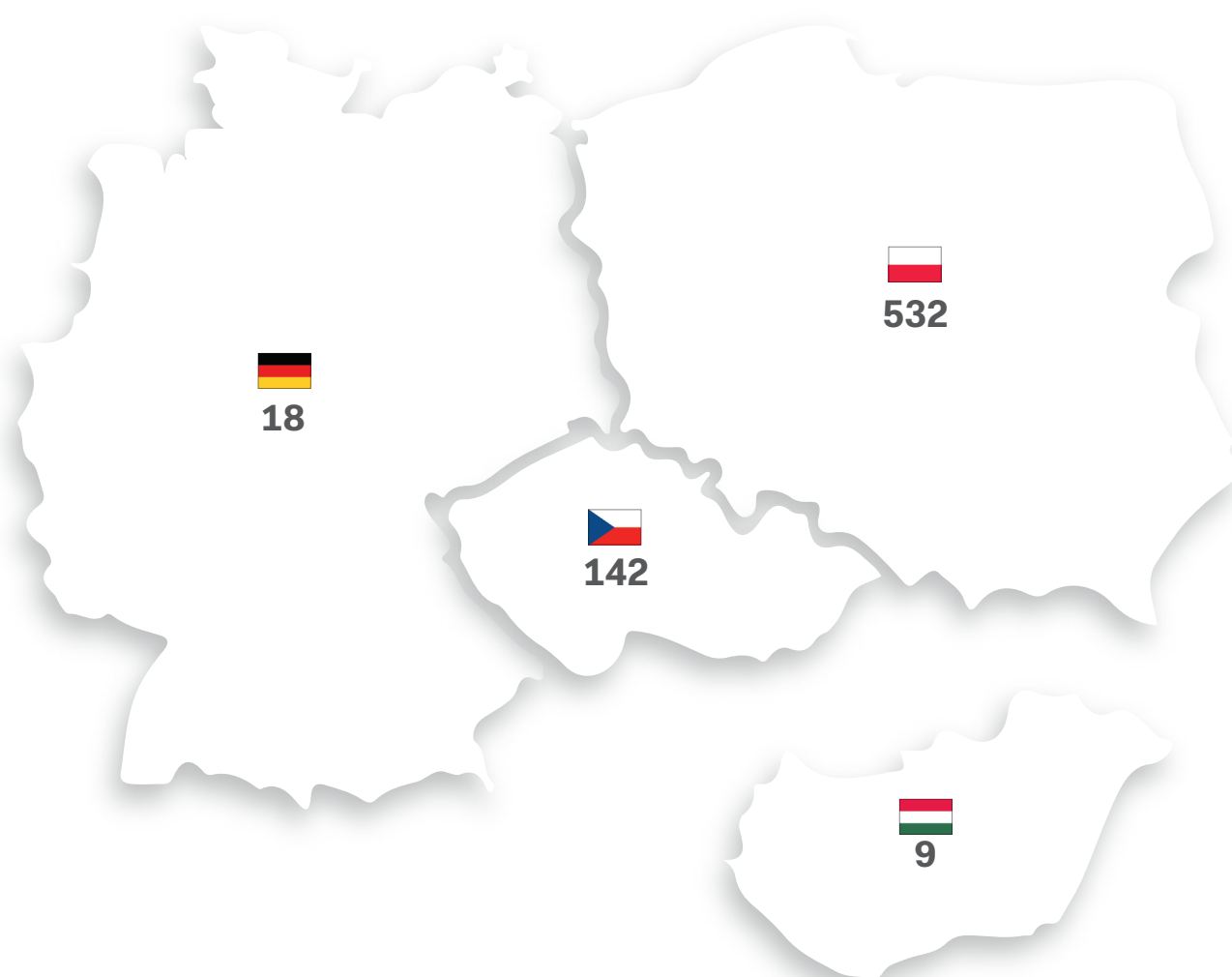
According to the Polish Economic Institute, public support for nuclear technology in Poland is exceptionally high, reaching an impressive 84%. This endorsement surpasses levels recorded in the other surveyed countries, standing 15pp higher than in France and Sweden (69% support) and 23pp higher than in the United States. There are legitimate concerns about the lengthy approval and permitting processes, the long implementation and huge costs of nuclear energy projects, which are still quite a novel solution, and the limited availability of qualified staff. These will need to be addressed by an enormous effort, encompassing not only the design and construction work, but also the essential task of training personnel to operate nuclear power plants. Despite these hurdles, the outlined direction is clear and compelling. Nuclear power seems a vital component in ensuring energy security for the Polish population.

Developing alternative fuels

Recent years have witnessed a major uptake of electromobility, steering and accelerating the investment plans of the ORLEN Group. We are steadily rolling out an infrastructure network that offers access to alternative fuels. Between 2016, when not a single such facility existed, and the present (the end of the third quarter of 2023), their number has grown to 701 (comprising 651 EV chargers, 47 CNG refuelling points, and 3 hydrogen refuelling points).

The accessibility of infrastructure for refuelling or recharging vehicles with alternative fuels is not confined to our domestic network, but extends beyond. In Poland such infrastructure comprises 532 stations, while the other ones are located in the Czech Republic (142), Germany (18) and Hungary (9). Among these countries, Germany will be a focal point of our ambitious plans for intensive roll-out of the EV charging network. Over the next two years alone, the number of EV charging stations across Germany is expected to surge to more than 430.

Alternative refueling stations belonging to the ORLEN Group (as at Q3 2023)





Presently, we already operate a mobile hydrogen refuelling station in Kraków, serving public transport buses. At the end of 2023, a hydrogen refueling point was launched at the public transport plant in Płock. By the end of the first quarter of 2024, public stations in Poznań and Katowice will also be put into operation. Further ORLEN hydrogen stations are planned in several locations: Bielsko-Biała, Gorzów Wielkopolski, Wałbrzych, Kraków, Włocławek, Gdynia, Piła and Warsaw.

Hydrogen charging stations in Poland belonging to the ORLEN Group

- Planned stations
- Existing stations





3.3

Contemporary challenges New technologies

Our ORLEN2030 business strategy provides for stepping up investment in research, development and innovation. In 2021, we launched a modern Research and Development Centre in Płock, in a major step towards more effective development of new technologies and products, building our own know-how, and securing patents for innovative solutions. In its innovative projects, the Centre fully relies on the capabilities and potential of Polish scientific institutions. Among the various development areas we are exploring, two are worth particular attention: biofuels and hydrogen.

Investing in biofuels

What are biofuels? Biofuels are environmentally friendly alternative fuels derived from renewable biomass material, such as plants (rapeseed, sugar cane, corn, wheat) or food processing waste (used cooking oils, animal fats, including those sourced from the catering and hospitality industries, which were previously considered waste materials). In 2018, guided by a commitment to environmental stewardship, the ORLEN Group adopted the Biofuels Programme, targeting a tenfold increase in biofuel production to 3 million tonnes by 2030, with a dedicated budget exceeding PLN 15 billion. Our biofuel projects will be implemented in Poland and the Czech Republic.



In March 2022, ORLEN Unipetrol's Czech plant in Litvínov secured certification for petrochemical production using hydrogenated vegetable oils (HVO). Partial replacement of crude oil with this alternative feedstock aligns with emission reduction goals, and responds to regulatory and market expectations. In parallel with the launch of HVO processing in the Czech Republic, we are developing an innovative technology for the hydrogenation of used cooking oils at our refinery in Płock. An HVO unit will be built at the plant in 2024, with hydrogenation technology for rapeseed oil, used cooking oil (UCO) or their mixtures introduced on an industrial scale. The end product will be used as an additive to diesel oil or JET aviation fuel. The HVO unit's annual capacity could reach approximately 300,000 tonnes. This environmentally friendly and innovative project will reinforce our position in the biofuel market. Its estimated cost is about PLN 600 million.

Another significant biofuels initiative involves the construction of a second-generation bioethanol plant in Jedlicze. It will utilise grain straw as feedstock, which will be sourced from farmers at an estimated quantity of 150,000 tonnes annually. The plant is expected to yield about 25,000 tonnes of bioethanol, to be used as gasoline additive, and is slated for commissioning in 2025.

The ORLEN Group is making significant strides to emerge as a leader in the biofuels segment. This progress stems from the carefully thought-out investments we are progressively implementing. The most recent of these initiatives is the UCO FAME production and distillation unit, placed in operation by ORLEN Południe at its Trzebinia refinery. It will produce second-generation esters (30,000 tonnes) and technical-grade glycerine (7,000 tonnes) from food processing waste, i.e. used cooking oils and animal fats. Second-generation esters, employed as additives in gasoline and diesel oil, contribute to reducing crude oil demand, aligning with our diversification strategy. Glycerine will serve as a feedstock in producing propylene glycol for applications in the food, pharmaceutical, cosmetic and medical industries. The UCO FAME project was completed in less than two years, with a total cost of approximately PLN 127.5 million.

ORLEN Południe stands out as one of Poland's biofuel and biocomponent production leaders, with a 30% market share. In 2022, it reported a production volume of 273.4 thousand tonnes, which will now increase by another 30,000 tonnes annually. Moreover, the facilities in Trzebinia include Europe's largest unit for the production of environmentally friendly propylene glycol, a pilot plant for the production of lactic acid, and Poland's first hydrogen hub, supplying fuel for Kraków's public transport. There is a solar photovoltaic farm under construction at the ORLEN Południe refinery site. This PV will generate power for the production facilities. The project will further decrease carbon emissions in transport, in line with the National Reduction Target. Esters produced at the UCO FAME plant generate 83% less emissions than conventional diesel oil.



In October 2023, ORLEN Południe signed a contract for the construction of a state-of-the-art oilseed processing plant in Kętrzyn (Province of Olsztyn). The plant, set to process 500 thousand tonnes of rapeseed annually, will produce 200 thousand tonnes of oil to be used in the manufacturing of low-carbon biofuels. Apart from creating job opportunities, the project will be a stable source of demand for rapeseed grown by Polish farmers. The estimated total cost of the Kętrzyn pressing plant project is approximately PLN 850 million. Its location has been influenced by the region's robust agricultural potential and the abundant availability of the raw material. Construction is slated to commence in the first half of 2024, with completion expected by mid-2026. In addition to the pressing plant, the complex will include various processing nodes such as facilities for raw material reception and product dispatch, storage for raw materials and products, pressing and extraction, process steam production, and wastewater treatment.





Ambitious hydrogen development programme

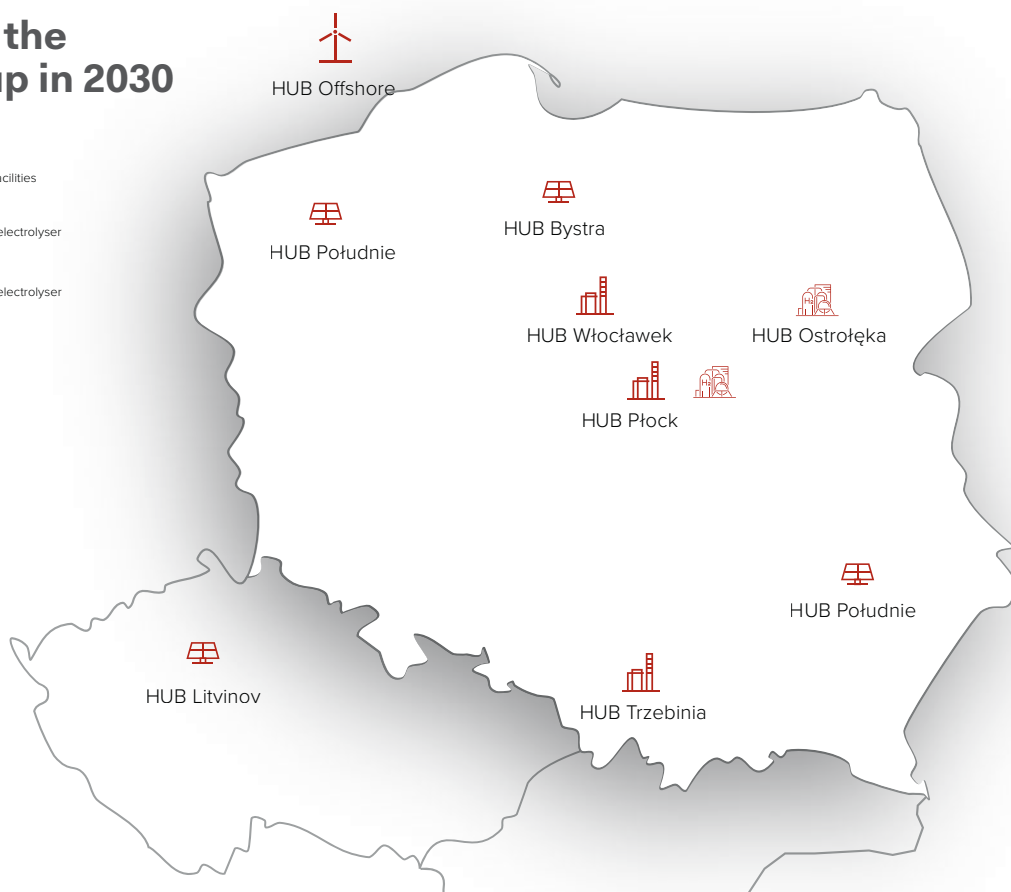
Having low to zero carbon intensity, hydrogen is considered globally as a key element of the green energy transition. It is convenient to use and has a wide range of applications, including in transport, industry and municipal services, such as district heating. Mindful of these advantages, we have created a hydrogen economy development strategy that complements our ORLEN Group business strategy to 2030.

By the end of the decade, we intend to install approximately 0.5 GW of new hydrogen production capacities. To that end, we will build a total of ten hydrogen hubs, mainly in Poland, but also in the Czech Republic. Their output will be used primarily in industrial processes, in which the grey hydrogen currently produced from fossil fuels will be replaced with the product meeting the EU Taxonomy requirements. Our hydrogen strategy also envisages the construction of facilities producing automotive-grade hydrogen to be supplied to hydrogen refuelling stations. We target production of 19 kt or more of hydrogen for transport applications.

We plan to allocate PLN 7.4 billion for our hydrogen strategy, envisaging a target annual output of 130,000 tonnes of renewable hydrogen by 2030, a part of which will be offered as an alternative transport fuel. The contemplated technologies include renewables-powered water electrolysis plants producing hydrogen from municipal waste and biomethane. The strategy will be implemented in four key areas: mobility, refining and petrochemicals, research and development, and industry and energy. The projects will support the transformation of the ORLEN Group into a carbon-neutral multi-utility player.

Hydrogen at the ORLEN Group in 2030

-  Existing sources at production facilities
-  Offshore renewables-powered electrolyser
-  Onshore renewables-powered electrolyser
-  Waste-to-hydrogen



The first hydrogen hub in Trzebinia, operational since 2021, makes grey hydrogen for the transport sector and is to ultimately produce low-carbon hydrogen from renewable energy sources. Currently, its product is primarily supplied to a mobile refuelling station in Kraków, serving hydrogen-powered public transport buses. The capacity of the Trzebinia hydrogen hub is about 45 kilograms of automotive-grade hydrogen per hour. Another hub is being built in Włocławek, where green hydrogen production is planned to start by the end of 2023. In late 2026 or early 2027, a third hydrogen hub will be placed in service in Płock to produce green hydrogen for industrial and transport applications.

As hydrogen can also be used in rail transport, ORLEN and LOTOS Kolej plan to transition their locomotive fleets to hydrogen power, starting at the Płock production plant and extending to other locations. In the longer term, we intend to develop the market for hydrogen and gradually expand the network of hydrogen refuelling stations for rail vehicles. The most promising opportunities are offered by some of the key non-electrified rail areas in Greater Poland, the Podlasie region in Pomerania.



In September 2023, we purchased a state-of-the-art locomotive from PESA Bydgoszcz, the first hydrogen-propelled rail vehicle in Poland. With a tank capacity of 175 kilograms, exceeding that of a hydrogen-powered bus by over fivefold, this locomotive can operate continuously for 24 hours. The traction system features two 85 kW fuel cells, a battery, and four traction motors. During the operational tests run immediately after the purchase the locomotive successfully completed its maiden voyage between Gdynia and Hel.

The ORLEN Group is the leader of the Mazovian Hydrogen Valley and a member of the Lower Silesian Hydrogen Valley. ORLEN Południe is a member of the Silesian and Lesser Poland Hydrogen Valley. Furthermore, we have founded and are actively involved in the activities of the Amber Hydrogen Valley in the Pomerania region. Hydrogen valleys are centred on building regional hydrogen value chains: from production, to storage and distribution, to various end applications, for instance in industry. We plan projects along the value chain, and the hydrogen valleys create favourable conditions for bringing these plans to fruition.



70 billion

PLN assumed budget for 2023-2030 for projects related to gas extraction and trade



over 40

million tons of crude oil per year - total processing capacity of all ORLEN Group refineries



approx. 1 billion

PLN - this is how much the operating profit (EBITDA) of the concern will increase as a result of the investment in Olefins 3

4 GW

low-emission gas energy

9 GW

zero-emission renewable energy sources

300 MW

zero-emission nuclear energy with SMR

thanks to these assumptions, ORLEN plans to reduce emission intensity in the energy segment by 40% by 2030



3,5

thousand service stations by the end of the decade



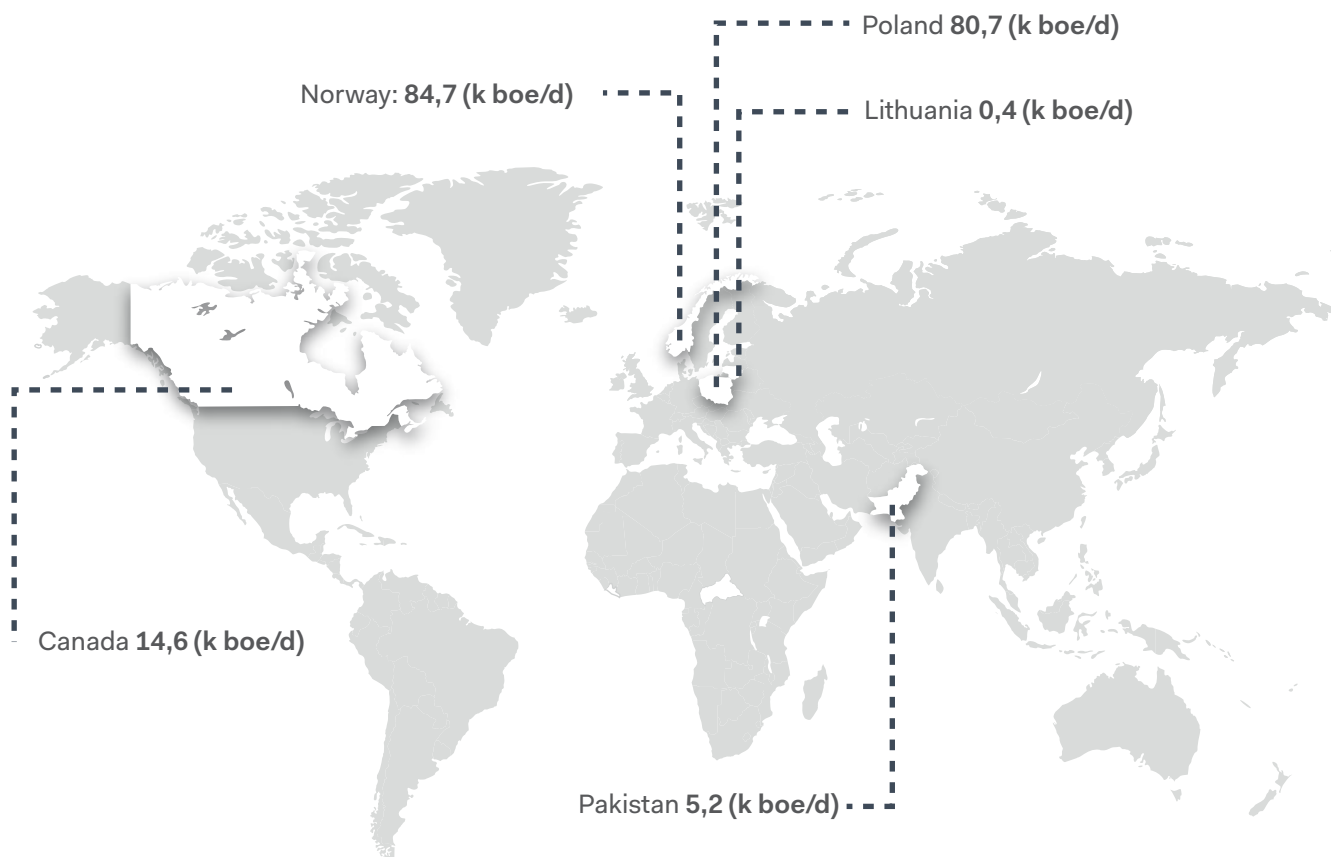
04 Optimisation and development of existing segments

Upstream

The synergies arising from ORLEN's merger with PGNiG and LOTOS have enhanced our upstream capabilities. We have gained access to diverse sources of crude oil and natural gas. As a consolidated large multi-energy group, ORLEN has fortified its already robust standing on the international market, which strengthens our leverage in negotiations with major industry players and, importantly, facilitates securing favourable terms of collaboration with such partners.

In line with the ORLEN Group's strategy, PLN 320 billion is to be invested to foster further dynamic growth by the end of this decade, with PLN 70 billion already being spent on gas extraction projects. Production from own sources is a cornerstone of a balanced gas portfolio. Access to own natural gas reserves guarantees reliable and competitively priced supplies for our customers. Therefore, ORLEN Group companies are actively engaged in the exploration and production of hydrocarbons, including natural gas, in Poland, Norway, Canada, Pakistan and Lithuania.

**Average hydrocarbon production
in 2022 by ORLEN Group companies**



In 2022 alone, the ORLEN Group produced 7.7 bcm of gas from both foreign and domestic fields. This means that almost half of the natural gas consumed in Poland, or 17 bcm, is sourced from our own production. The output from domestic gas fields reached about 3.43 bcm in 2022, covering more than one-fifth of Poland's natural gas demand, a testament to its significant role in meeting the gas needs of Polish consumers.

In accordance with our strategic plans, we aim to increase annual output from our own sources to 12 bcm by 2030, with half of this volume expected to originate from Norway. Securing reliable supplies by expanding production in both Poland and Norway is a task of utmost importance to us, especially considering the cessation of supplies from Russia. 2023 was the first full year without Russian gas imports. In addition to gas brought to Poland via the Baltic Pipe and the Świnoujście LNG Terminal, the production from domestic and foreign fields serves as an additional assurance of supply security for consumers in Poland. Another noteworthy benefit of our exploration and production efforts in Poland is the positive impact on the financial condition of local governments in the regions where hydrocarbon resources are located.

In Poland, following the merger with the former LOTOS and PGNiG Groups, we conduct exploration and appraisal activities over an area of 53 licences (including 6 with investment decisions, which form the basis for starting the production phase), accounting for 80% of all oil and gas exploration and appraisal licences issued in Poland as at the end of 2022. The combined ORLEN Group holds a total of 185 licences for oil and gas production. That is more than 98% of all licences issued for the production of hydrocarbons in Poland as at the end of 2022. To compare, back in 2016, ORLEN Upstream and its subsidiary FX Energy operated independently or with a partner (PGNiG) in 31 licence areas in Poland.

Promising prospects for production growth are presented by Norway. Until recently, two Polish companies, i.e. PGNiG Upstream Norway (PUN) and LOTOS Exploration&Production Norge, operated on the Norwegian fields. In May 2023, we merged those operations, creating a strong player with sufficient capabilities to effectively execute further projects. In our most recent transaction, ORLEN acquired all assets of KUFPEC Norway, a subsidiary of KUFPEC, an international upstream company based in Kuwait. This move is projected to boost our natural gas production on the Norwegian Continental Shelf by a third compared with 2023, to surpass 4 bcm per year.

After the acquisition of KUFPEC is completed, the ORLEN Group will hold 94 licenses on the Norwegian Continental Shelf, placing it in 5th position among companies operating in that area in terms of the number of licences. PGNiG Upstream Norway will rank 9th in terms of recoverable reserves, totalling about 400 mboe, including some 60 bcm of natural gas reserves, and 7th in terms natural gas output, exceeding 4 bcm per year.

Furthermore, through our Operator Branch, we are actively engaged in exploration activities in Pakistan under an agreement for hydrocarbon exploration and production in the Kirthar licence area. We are already producing natural gas under two licenses in Pakistan, covering reserves estimated at just under 40 mboe. Last year, the production under those licences reached 0.3 bcm.



Refining

The war in Ukraine caused a major upheaval in the oil industry, prompting the need to secure supplies of crude oil and fuels from alternative sources. European countries were particularly hard-hit as their refineries struggled to meet demand fully after the shift away from Russian imports. The developments of recent years have underscored the necessity for increased investment in Poland's fuel infrastructure and confirmed the soundness of the decision to diversify supply sources. By 2030, we plan to invest a total of PLN 60 billion in our refining business. It will remain an important area of our operations until the end of the decade, with an annual throughput exceeding 40 million tonnes of oil, sourced from suppliers alternative to Russia.

- **Visbreaking unit in Płock**

Further development of our refining business will rely primarily on increasing the crude conversion rate on the one hand, and on the other hand on improving the efficiency of the ORLEN Group's fuel and energy segment as a whole. In 2020, we commenced the construction of a visbreaking unit, a key project for the Płock refinery. Visbreaking, already used by our Czech and Lithuanian refineries, is a proven technology, which requires the lowest capital cost of any other available vacuum residue conversion technologies.

In the visbreaking unit, vacuum residue, which has so far been used to make heavy fuel oils and asphalt, will be processed into high-margin products: gasoline and diesel oil. This will help the refinery to achieve higher conversion and improve fuel yields per barrel of oil by several percentage points.

- **HBO project in Gdańsk and marine cargo handling terminal on the Martwa Wisła river**

In the Pomerania region, we have allocated a total of PLN 2 billion to investments expected to improve the profitability of crude processing and the security of product supply. By investing in our own infrastructure, we are reducing our dependence on external partners, whilst generating significant savings in the logistics area. Importantly, we are leveraging the potential of the local companies we have engaged to work on this project.

One of the new projects, being built on the refinery wharf, is a transshipment marine terminal with a capacity to handle more than one million tonnes of products, including base oils, marine fuels or fuel bio additives. In the next few years, the target annual capacity of the Martwa Wisła marine terminal could reach up to 2 million tonnes of products. The terminal will ease the workload of the refinery's railway siding, currently used to transport products between the refinery and external transshipment points. It will also play a key role in shipping base oils from another, larger project, whose timeline is closely correlated to the construction of the terminal – a hydrocracked base oil (HBO) unit, which is being built in Gdańsk, and whose construction started in late 2021. According to the plan, the installation will be launched at the turn of 2025 and 2026.





The HBO unit at the Gdańsk refinery will enable the production of high-quality oils. Launching a brand new product category, namely state-of-the-art oils, on the Polish and foreign markets will significantly bolster our competitiveness. The unit is going to produce over 400 thousand tonnes of those oils and several dozen thousand tonnes of fuel intermediates. Both the HBO unit and the transshipment marine terminal projects have been prepared by experts from the former LOTOS Group. Exemplary cooperation between the teams of the two merging companies allowed our multi-utility group to smoothly take over and continue their implementation.

- **Construction of a hydrocracker unit (ORLEN Lietuva)**

The project to build the deep crude conversion unit in Mažeikiai is the largest ever capex project carried out by the ORLEN Group in Lithuania. Slated for completion by the end of 2024, it will add as much as about EUR 68 million to annual EBITDA. This will be achieved by increasing the yield of high-margin products by up to 12pp, to over 84%, from less than 72% today.

Currently, in order to produce the expected volume of fuel, ORLEN Lietuva needs to process up to 10 million tonnes of feedstock annually. Once the hydrocracker is brought on-stream, a similar volume of fuels may be obtained at a throughput of 8 million tonnes of oil per year. The plant will bring about a substantial improvement in the profitability and margins of the Mažeikiai refinery, making ORLEN Lietuva independent of the volatile macro-economic environment. This opens the door for the company to explore new product lines.

Petrochemicals

The petrochemical industry plays a role in supporting the demand for oil refining products, and thus in expanding refining margins, due to the growing use of modern plastics across the global economy. Central and Eastern Europe stands out as one of the most demanding, competitive and fastest-growing markets in terms of demand for petrochemical products. The industry significantly influences the economic landscape, providing substantial economic benefits. Continuous petrochemical investments not only bring cutting-edge technologies and solutions but also contribute to job creation and the generation of stable income.

The ORLEN Group has emerged as a leading petrochemical producer in Central Europe, achieving this status through an expanding product portfolio, diversification into new business areas, and improvements in plant efficiency. Furthermore, the Group is consolidating its position in the promising polymers sector, extending its value chain, and venturing into compounding and concentrates.



Recent years have seen the integration of the Group's assets in Poland, the Czech Republic and Lithuania. Additionally, there are plans to maximise yields from the cracking process (conversion of oil refining products, specifically saturated hydrocarbons, into olefins), through various capital investment projects:

- 2019 – Płock: a metathesis unit for propylene production (increasing production by 100,000 tonnes per year)
- 2020 – Mažeikiai: a PPF splitter for propylene production (with a capacity of 80,000 tonnes per year);
- 2020 – Litvínov: a polyethylene 3 (PE3) unit, which has enabled increased integration of petrochemical and refinery production within the Unipetrol Group (approximately 355,000 tonnes per year);
- 2021 – Trzebinia: a glycol plant (with a production capacity of 30,000 tonnes per year);
- 2023 – Włocławek: expansion of the fertilizer plant (a 50% increase in production capacity);
- in progress – Płock: construction of the Olefins III and derivatives complex (increasing ethylene yield by 740,000 tonnes per year and propylene yield by 300,000 tonnes per year, and extending the petrochemical value chain).

ORLEN is a supplier of base chemicals, plastics, and fertilizers, offering a portfolio of around 40 petrochemical products marketed across more than 60 countries. The Group is the largest producer of propylene in Poland, which makes it a key player in the European market. In nitrogen fertilizer production, ORLEN ranks 2nd in Poland and 10th in Europe. The Group stands as the sole producer of suspension PVC (Polanvil) in Poland, holding the 8th position in Europe (the polymer finds applications in the manufacturing of building profiles, water and sewage piping, wire and electric cable insulation and coating, as well as small medical equipment).

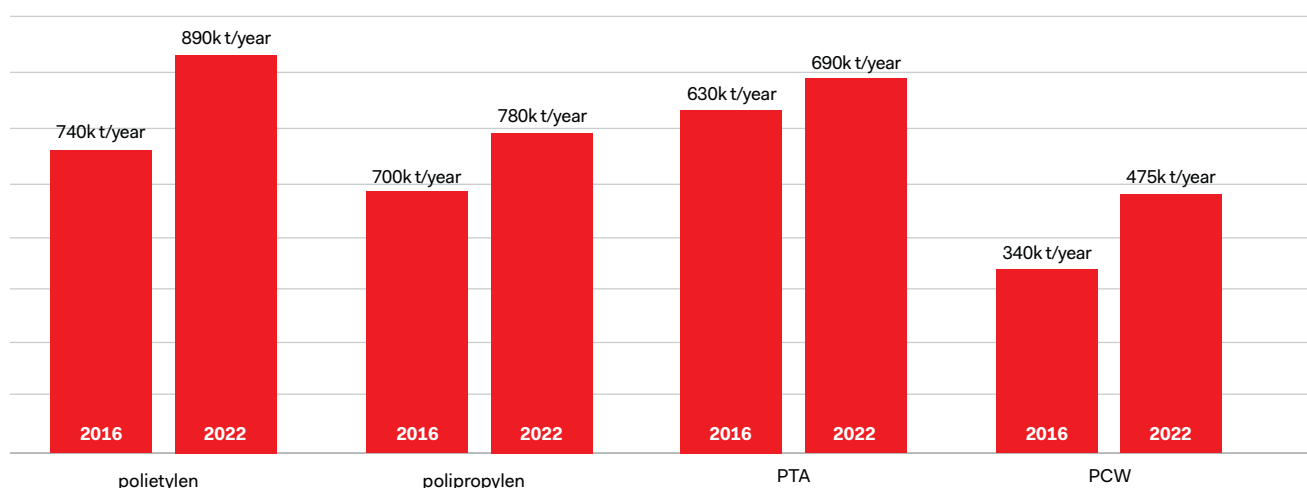
The ORLEN Group gains a competitive edge in Europe through fully integrated production facilities for paraxylene and PTA (the applications of purified terephthalic acid include PET packaging production). The Group is Poland's largest producer of sodium hydroxide, marketed mainly as caustic soda solution, and prilled caustic soda. Sodium hydroxide is a primary chemical used across diverse industries for various organic and inorganic synthesis processes, serving as an auxiliary material in sectors such as cellulose and paper, textile and viscose, and in crude oil processing and water treatment for industrial applications.

The ORLEN Group is investing in environmentally-friendly projects to manage plastic waste. The agreement signed by ORLEN Unipetrol to acquire the Italian-Czech company REMAQ, a Central European leader in recycling, is a crucial component of the Group's strategic plan. The transaction will help the ORLEN Group to achieve almost 10% of the 2030 strategic target for recycling capacity. The recycled plastic waste will be utilised to manufacture new petrochemical products for various industries, including construction, automotive, and packaging.

The Olefins III project stands out in Europe as the largest initiative of its kind in two decades. Designated as the ORLEN Group's key growth project due to its size, it is a strategic response to the growing demand for petrochemical products. Projected to add approximately PLN 1bn annually to ORLEN's operating profit (EBITDA), Olefins III also targets a substantial reduction in carbon dioxide emissions per tonne of product, aiming for up to 30%. Beyond financial gains and environmental benefits, the completion of the Olefins III complex by 2027 positions ORLEN as a potential leader in the regional market, with control over about 40% of the region's olefins production capacity.

The project is intricately linked to industry changes and the gradual transition away from petroleum products for transport. As part of the project, the existing adjacent facilities are undergoing upgrades, and the revamped infrastructure will serve as a foundation for future growth initiatives. All these efforts are part of the strategic transformation of ORLEN's refining and petrochemical assets, fostering more effective synergies associated with acquisitions within the Group.

Total production capacities of ORLEN Group plants in 2016 and 2022



Energy

The development of the energy segment through investments in low- and zero-carbon generation sources stands as a key pillar of our strategic approach, improving the environmental efficiency of our processes and contributing to the achievement of the National Emission Target. Most significantly, it substantially reinforces Poland's energy security, in line with ongoing growth of the electricity volumes supplied by our power generation assets to the National Power System.

ORLEN's strategy initiated in 2016 focused on enhancing the efficiency of the downstream segment, including upgrades to existing power generation sources and investments in new CCGU units. This involved primarily the continuation of the project to construct Poland's two largest gas-fired combined heat and power plants, in Włocławek (463 MWe, now 474 MWe) and Płock (596 MWe, now 608 MWe), which commenced in 2015. Following the 2023 strategy update, ORLEN has consistently evolved into a more sustainable multi-utility group, embracing the goal of excellence in low-carbon conventional power generation. As a result, the development of our CCGT assets has accelerated. We have started the construction of CCGT units in Ostrołęka (745 MW) and Grudziądz (563 MW). We plan to allocate PLN 65 billion by 2030 to investments in conventional power generation, with the strategic aim of attaining a capacity of 4 GW in CCGT units.

2,9
GWe






We are a major producer of electricity and heat, largely used to meet our own production needs, and a key player in the electricity distribution sector in Poland. Our share of the domestic energy market notably increased from April 2020, following the incorporation of Energa companies into the ORLEN Group. In 2023, with the acquisition of LOTOS and PGNiG, our gas-fired power generation capacities rose to 1,690 MWe. Currently, the ORLEN Group has total installed electrical capacity of 2.9 GWe and thermal capacity of 4.3 GWt, including 1.1 GW from gas-fired sources. Surplus electricity generated by the new CCGT assets is supplied to the wholesale energy market and to end users, specifically residents of towns in the vicinity of the CCGT units.





In terms of installed capacity, our high-efficiency combined heat and power plant in Płock stands out as the largest industrial plant of this kind in Poland and ranks among the largest in Europe. Since 2018, it has been supplying power and heat generated using the CCGT technology. The latest CCGT units are designed with a future transition from natural gas to hydrogen in mind. In addition, certain units are fuelled with biomass or biogas (for example, at Energa Kogeneracja and ORLEN Południe in Trzebinia). Among ORLEN's CHP plants outside Poland, only the plant in Spolana in the Czech Republic generates 100% of its energy output using gas-fired sources (since 2020).

Locations of selected energy assets of the ORLEN Group



ENERGA Group's assets

-  Pumped-storage power plant
-  CHP plant
-  Commercial power plant
-  Heat plant
-  Large hydroelectric power plant

-  Biomass-fired generation unit
-  Coal-fired generation unit
-  Electricity distribution
-  Electricity sold

Other ORLEN Group companies' assets

-  CHP plant
-  CCGT unit

1,7
GWe

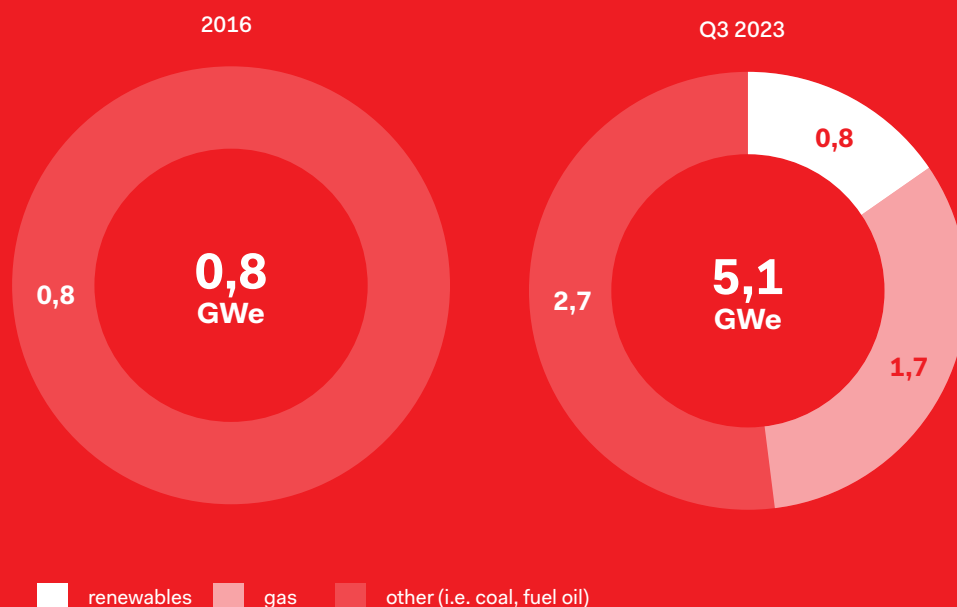
The first effects of investing in gas-fired heat and power generation assets were seen as early as 2016. During commissioning tests in Włocławek, the first electricity volumes were supplied to the local system. Gas-fired power generation in Włocławek gained momentum in 2017, when installed capacity reached 0.5 GWe. A year later, a 0.6 GWe unit came online in Płock. In 2019, the Trzebinia CHP plant (ORLEN Południe) launched its CCGT unit with a 24 MWe capacity, which was subsequently increased by half, to 36 MWe, two years later. In summary, the installed electrical capacity of the ORLEN Group's gas-fired sources has consistently expanded. Starting from the 0.5 GWe commissioned in Włocławek in 2017, it grew to 1.1 GWe a year later with the addition of new units in Płock and Trzebinia. By 2023, after the inclusion of PGNiG companies' assets in Przemyśl and Warsaw, the capacity reached 1.7 GW. This means a threefold increase in low-carbon energy volumes over six years.

In 2016, the ORLEN Group operated nine CHP plants in three countries: four in Poland, four in the Czech Republic, and one in Lithuania. They mostly relied on fine coal, lignite and fuel oil. Three plants used natural gas as an additional fuel, and the plants in Kolin and Pardubice in the Czech Republic mainly used gas. Since then, four CHP plants have improved their emission performance by:

- replacing existing generation sources with CCGT units (Płock, Włocławek, the Czech Spolana);
- transitioning to fuels with lower carbon intensity or incorporating such fuels into the fuel mix (Trzebinia and the Lithuanian Mažeikiai).

Subsequently, the pool of ORLEN's generation assets was expanded with less carbon-intensive generation sources of the ENERGA Group (Elbląg and Żychlin cogeneration plants using biomass in addition to coal) and PGNiG TERMIKA. However, most of the 22 generation units incorporated into the ORLEN Group in 2020–2023 are characterised by high carbon intensity. Efforts are underway to gradually shift this profile, with the construction of new CCGT units in Ostrołęka and Grudziądz already in progress. What it more, by 2035 the Group plans to end the production of electricity and heat in coal assets, largely replacing them with less emission and modern technologies.

Installed capacity



Retail

In 2016–2023, the ORLEN Group's retail business grew rapidly, as evidenced by the marked increase in fuel sales volumes, overall value of retail sales (including non-fuel sales), and capital expenditures in the retail segment. Compared with 2016, sales volumes for gasoline, LPG, diesel oil and light fuel oil have risen by more than 14%. The total sales in the retail segment, encompassing non-fuel products and services as well as fuels, have surged by nearly 120%. The most notable change, however, has occurred in capital expenditures, which went up by nearly 200% relative to 2016.

ORLEN Group's sales in the retail segment (2016 vs 2022)

	2016	2022	
FUEL SALES VOLUME (GASOLINE, LPG, DIESEL OIL AND LIGHT FUEL OIL)	8 187 k tonnes	9 347 k tonnes	+14,1 %
TOTAL SALES VALUE (INCLUDING NON-FUEL PRODUCTS AND SERVICES)	PLN 29 841 million	PLN 65 329 million	+118,9 %
CAPITAL EXPENDITURE (CAPEX)	PLN 479 million	PLN 1409 million	+194,1 %

The ORLEN Group is the undisputed leader in retail fuel sales in Central Europe. In January 2024, the company had 3,439 gas stations - 713 more than in 2016. The past eight years have brought a steady increase in the number of ORLEN Group's stations (in Poland and abroad).

Development of the ORLEN petrol station network in 2016 - 2024

	2016	I 2024	
TOTAL	2726	3439	+26%
Poland	1766	1931	+9%
Germany	572	607	+6%
Czech Republic	363	436	+20%
Lithuania	25	30	+20%
Slovakia	0	90	
Hungary	0	78	
Austria	0	267*	

* the acquisition process of the Austrian Turmöl station network was finalized in early 2024

● Retail sales in poland

In Poland, at the beginning of 2024, the ORLEN Group had 1,931 service stations. Compared to 2016, this number increased by 165. A significant milestone was reached in 2022: following completion of the merger with LOTOS, 90 sites previously owned by the former LOTOS Group were included in our chain. This is one of the drivers of growth in our fuel sales volumes. In 2022, our service stations in Poland sold 20% more gasoline, LPG, diesel oil and light fuel oil than in 2016.

● Non-fuel business

Fuel sales are just one of our business segments. A substantial share of the ORLEN Group's profits is derived from retail stores situated at service stations and selling non-fuel products, including a wide array of food and beverages, developed in collaboration with major Polish producers. In mid-2022, an impressive 85% of the non-fuel product range at our domestic service stations consisted of items made in Poland. Since 2018, we have run five image-building campaigns to encourage consumers to consciously opt for Polish products, which generated increased interest in the merchandise sourced from local suppliers.

16,8
million liters
of coffee

Products such as hot dogs, sweets, and coffee are offered through various food service formats, namely Stop Cafe, Stop Cafe 2.0 featuring an additional range of fresh products prepared directly at the service station, and Stop Cafe Bistro. This offering is not exclusive to ORLEN stations in Poland but is also available in five other countries: the Czech Republic, Slovakia, Germany, Lithuania and Hungary. We already operate nearly 2,200 Stop Cafes, Most of them, i.e. 80%, are located in Poland. Outside of Poland, the largest number of Stop Cafe outlets is found in the Czech Republic (342), Slovakia (48) and Lithuania (29). In 2022, we achieved record-breaking sales of 58.2 million hot dogs. In the same year customers bought 16.8 million litres of coffee, enough to fill seven Olympic-sized swimming pools.

Evolution of the food service chain at ORLEN service stations (2016 vs 2022)

	2016	2022	
Stop Cafe	1691	2232	+32 %
<i>including Stop Cafe 2.0</i>	41	1345	+3182 %
Star Connect (Germany)	-	164	
Piknik (Hungary)	-	5	

● Courier and e-commerce services

An important milestone in the development of the ORLEN Group's non-fuel business was 2020, when we became the majority shareholder in RUCH, an operator of a countrywide newsagent chain. This move not only expanded our retail network but also catalysed the growth of new business lines, including courier services. In this process, we leveraged the potential of RUCH's human resources. Our objective from the outset was to capitalise on market trends associated with evolving commerce and the changing needs of customers.

In July 2022, we decided to enhance the RUCH chain by launching the new ORLEN in Motion format. The traditional RUCH kiosks started to be replaced with significantly larger, air-conditioned stores, where customers can step inside and explore the offered product range. The new format also made it possible to sell fair-trade coffee, known from our Stop Cafes.

Our product offering is complemented by a variety of services, including ORLEN Parcel (formerly known as Paczka w RUCHU), a convenient solution for individuals and businesses engaged in online buying and selling. Parcels can be collected and dropped off:

- at ORLEN service stations (1,100 locations);
- through parcel lockers (4,000);
- in RUCH kiosks and stores (700); or
- at partner outlets (5,000).

Currently, we offer over 10,000 parcel pick-up and drop-off points across Poland, including 4,000 parcel lockers (with the 4,000th locker placed in service in late November 2023 in Lublin). The parcel locker network has been developed since mid-2021. In September 2021, there were 200 lockers in operation, and by November 2022 their number rose to more than 1,500. Over the past year, this growth has further accelerated. Between December 2022 and November 2023, the number of Orlen Parcel lockers doubled, which means that we have outperformed the Allegro e-commerce platform in this regard.

NUMBER OF ORLEN PARCEL LOCKERS

IX 2021	200
XI 2022	1500
XII 2022	1847
III 2023	2386
VI 2023	3025
IX 2023	3535
XI 2023	4000

As part of logistics services, ORLEN Parcel logistics centres have been established across Poland. Currently, there are 19 centres in operation, with plans to expand the network. Also, the number of ORLEN Parcel couriers is growing and logistics routes are being extended to ensure consistent next-day delivery from online stores. Our service is gaining increasing recognition from customers, as evidenced by the October 2023 Gemius E-commerce 2023 report, ranking ORLEN Parcel as the second most popular choice for delivery to parcel lockers. Additionally, one in four individuals acknowledge that ORLEN Parcel serves as an incentive for them to engage in online shopping.



05 Foreign expansion



PKN ORLEN products are marketed in almost 100 countries across 6 continents

Thanks to our consolidation efforts that have created a modern multi-utility group, ORLEN has significantly amplified its international footprint, venturing into new markets for its diverse range of products and forging new business partnerships. Today, ORLEN, alongside its Group companies, operates across 10 home markets – Poland, the Czech Republic, Germany, Austria, Lithuania, Slovakia, Hungary, Canada, Norway and Pakistan. The Group also has operations in Malta, Sweden, Hungary, Cyprus, Estonia, Switzerland, the United Kingdom, the United Arab Emirates, Libya, Pakistan, the Netherlands, Belgium, Austria, France, Croatia, Ireland, Colombia, Tanzania, Mozambique, Ukraine, Latvia, and China. Our extensive portfolio of refining and petrochemical products are distributed to nearly 100 countries across six continents.

A notable example of the ORLEN Group's international expansion unfolded in 2020 with the establishment of ORLEN China to handle direct sales of our products in the Chinese market, which still holds huge unexploited potential. In its initial operations, the company focuses on selling motor oils, a product category previously distributed in China through third parties.

The ORLEN Group's lubricant and grease products reach numerous markets across Europe, as well as Asia, Africa, and America, including countries such as Armenia, Azerbaijan, China, Cyprus, Egypt, Ghana, Georgia, India, Iraq, Jordan, Kazakhstan, Costa Rica, Lebanon, Liberia, Tajikistan, Taiwan, Turkey, Uzbekistan, and Vietnam. Bitumen from our refineries is also used in diverse remote locations, contributing to the construction of roads in Australia, Dominican Republic, Fiji, the Philippines, Grenada, Guyana, Mauritius, Paraguay, Senegal, Trinidad and Tobago, and Uganda. The farthest corners of the world reached by our bitumen products include New Caledonia, nearly 16,000 km away from Poland in a straight line, and New Zealand, nearly 18,000 km away.



The ORLEN Group's international expansion between 2016 and 2023 went beyond market penetration for our refining and petrochemical products or growth of our retail network across Europe. It also involved securing internationally recognised contractors for diversified feedstock supplies and engaging with business partners for our investment and technology projects. The extensive network of our business and trading partners now includes Saudi Aramco, GE Renewable Energy, Northland Power, Vestas, Aker BP, Equinor and Semptra Infrastructure.

Furthermore, the ORLEN Group's global development signifies a new era of innovation and forward-looking technologies. In 2021, ORLEN Skylight was established as Poland's first corporate acceleration scheme for technology start-ups with an international reach, targeted at early-stage innovative businesses from all over the world with a finished product or service proposal. Operating for over two years, ORLEN Skylight has already launched eight application rounds, attracting over 500 proposals from both Poland and abroad. These applications spanned diverse sectors, including retail, logistics, safety and security, petrochemicals, and energy. As part of the scheme, more than 20 partnerships have been initiated, with seven pilot deployments successfully completed, six currently in progress, and another seven in preparation for deployment.

100
million Euro

In early 2022, ORLEN formed Poland's largest corporate venture capital fund, which is to invest around EUR 100 million over ten years in tech companies that have developed unique innovative solutions. ORLEN VC's investments allow us to enter into new promising business partnerships that will boost our international position and to develop them in collaboration with the best globally-staffed teams.

Through indirect investment, ORLEN VC has partnered with Emerald Technology Ventures' Industrial Fund. The Emerald fund is an undisputed global leader in venture capital investing in innovative breakthrough technologies. In addition to ORLEN VC, the fund's strategic investment partners today are 30 large international companies from the chemical, petrochemical and energy sectors, including Chevron, ABB, Michelin, SABIC, and Suncor Energy.

In less than two years of its operation, ORLEN VC has built a portfolio of six technology companies from all around Europe plus two foreign investment funds. Thus, it has joined a group of the largest and most active investment funds in Central and Eastern Europe. In line with the ORLEN2030 strategy, ORLEN VC plans to make an average of five to six direct investments per year, focusing on the most promising companies with innovative and ready-to-commercialise technologies.

At the beginning of 2024, after the approval of the European Commission issued in September 2023, the ORLEN Group entered another, sixth foreign market - Austria. By taking over 267 gas stations, ORLEN became one of the three largest fuel chains in this country, having approximately 10% share in the local retail market. With the acquisition, ORLEN achieved more than 98% of the company's strategic target for the number of stations by 2030. The plan is to grow the ORLEN service station network to at least 3,500 locations by the end of this decade with 45% of them to be located outside Poland (a notable increase from the current nearly 44% share, up 8.6 pp since 2016).

Proportion of foreign service stations

2016	2018	2021	2022	2023	2024
35,2%	36,2%	26,9%	38,0%	39,3%	43,8%

Retail outside poland

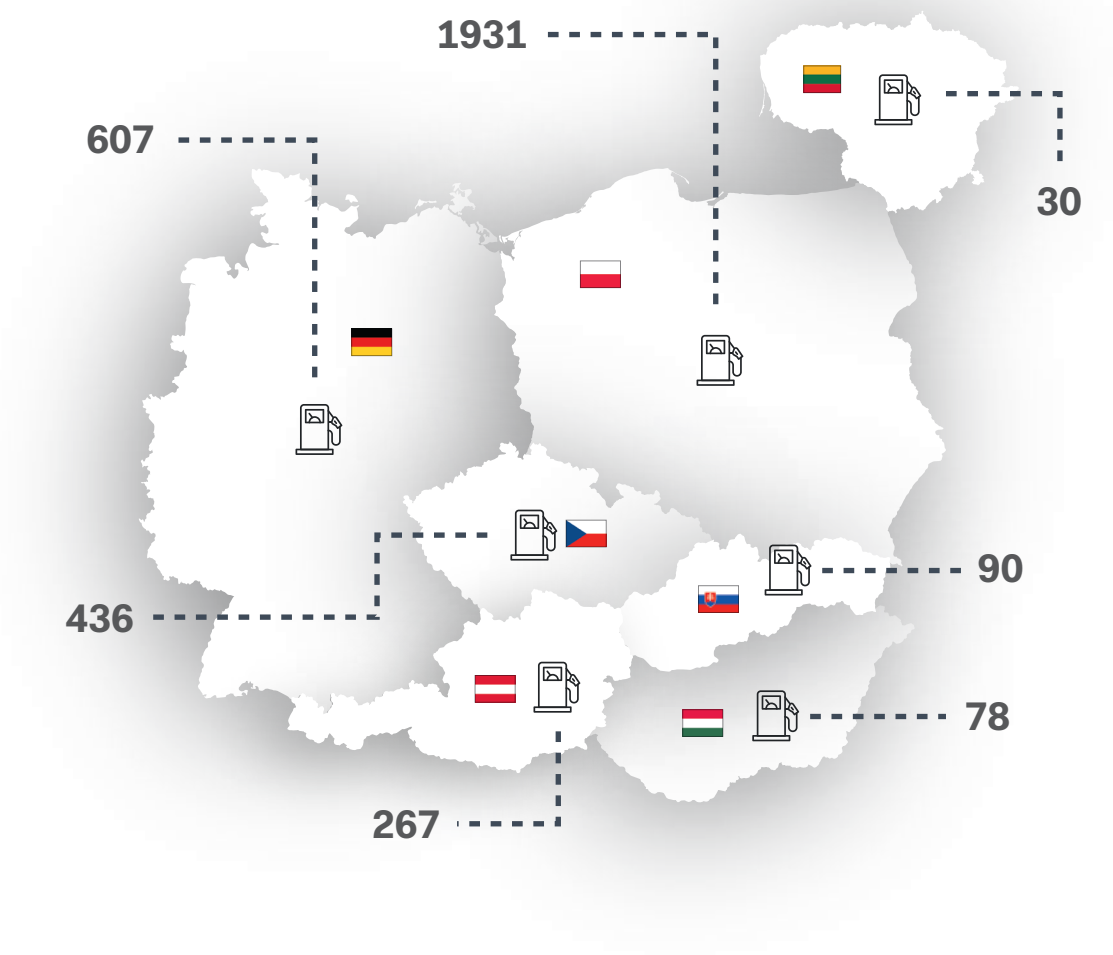
At the beginning of January 2024, the ORLEN Group's retail network comprised 1,508 service stations outside Poland, a significant increase of 548 relative to the close of 2016. This expansion can be attributed, in part, to our progressive entry into new international retail markets. In 2016, ORLEN operated service stations in three countries beyond Poland – Germany, the Czech Republic and Lithuania. Currently, we have expanded our retail footprint to cover two additional markets: Slovakia (since 2019) and Hungary (since 2022).



**ORLEN service station
in Coburg (Germany)**



**ORLEN SERVICE STATIONS
(as at January 2024)**





06 ORLEN for Poland

The ORLEN Group's operations are firmly grounded in the five core values of responsibility, development, people, energy, and reliability. These values provide the bedrock for our growth, empowering us to boldly and effectively execute our strategic goals. Our mission and credo "Powering the Future. Responsibly" should be understood in literal terms as the organisation's commitment to responsibility and a forward-looking vision. Following a series of mergers, the ORLEN Group has evolved into a powerhouse with nearly 66,000 employees. These individuals, through their drive, dedication and competence, contribute daily to the advancement of our multi-utility group. Recognising the pivotal role of people, we have positioned them as a key pillar of our strategic framework. Over the years, ORLEN has invested substantially in building an adept and skilled team of professionals and establishing a robust support system for its managers. The organisation places immense value on fostering both internal and external relationships, underpinned by principles such as integrity, respect, dialogue, cooperation, and commitment to shaping a culture aligned with the Group's values. ORLEN provides all its employees with decent and supportive working conditions, cultivating the features of a 'learning organisation', championing diversity, managing talent, leveraging human capital synergies, and upholding the highest standards of occupational safety.

Upgrading the HR policy

In 2018, the ORLEN Group companies carried out initiatives based on the updated Human Resources Management Policy adopted the year before, highlighting the crucial role of employees as invaluable assets. The revised document, based on industry best practice and reflecting human capital challenges and contemporary trends, outlines priorities and key tasks for employee management.

Key focus areas within the policy include reinforcing the Group's corporate culture, segment-based management, employee development, compensation and benefits, as well as performance management. Notable initiatives undertaken in 2018 at selected ORLEN Group companies encompassed onboarding of new hires, collaboration with trade unions to implement Collective Bargaining Agreements, partnership in working towards the Group's business objectives, and development of non-financial employee incentives (the Family-Friendly Employer scheme).

In 2018, work was also completed to implement a uniform standard of medical care across the Group. Prioritising employee well-being, we provide an extensive benefits package covering health, comfort, family, and future planning, fostering a work-life balance and supporting employees in the pursuit of their personal interests. The Group has a broad and varied range of projects designed to foster staff's engagement and strengthen their bonds with the employer, such as ORLEN Passion, which financially supports employees' outside-of-work interests in art, science, or collecting.

The ORLEN Group's HR policies and practices have been evaluated by independent bodies. Such assessments, covering base compensation and fringe benefits, working conditions, training opportunities, career building options and corporate culture management, have led to a number of accolades, including the Top Employers Poland certificate, The World's Most Ethical Company title, and recognition as the most desirable employer in the opinion of professionals and managers within the Energy, Gas, Fuels and Chemicals categories in a survey conducted by Antal International, a recruitment firm.

Socially responsible ORLEN

Since 2016, the ORLEN Group has significantly intensified its social engagement efforts. We have demonstrated a strong dedication to our social mission through various grants and scholarships, support for children living in foster family group homes, our employee volunteering scheme, and a host of other initiatives. A key aspect of this commitment is fostering positive relationships with the local communities. As part of our Good Neighbour policy, we improve community welfare through long-standing grant programmes.

My Place on Earth is one of the ORLEN Group's major initiatives, run since 2018 to support local organisations that have an idea how to make a positive difference in their immediate environment. Over the programme's five editions, we have distributed grants worth a total of PLN 11 million among nearly 1,300 organisations, which used them to organise projects for local communities, such as festivals, film shows, sports, educational and environmental protection activities.

Another impactful project, ORLEN for Firefighters, involves the annual provision of grants for equipment purchases by both professional and volunteer firefighting units. To date, ORLEN has allocated over PLN 21 million for this purpose, benefiting more than 2,000 firefighting units across Poland. The initiative

has significantly enhanced their operational readiness, improving safety within their local communities. In 2023, grants for equipment purchases will be extended to an additional 480 units of the State Fire Service and Voluntary Fire Brigades.

In addition to these grant programmes, we are actively involved in supporting various community-focused initiatives to revitalise memorial sites (We Keep Watch! We Remember!), promote health at local schools, kindergartens, cultural institutions, parishes, rural housewives' circles, and Volunteer Fire Brigade units (Health for Płock), support municipal and district divisions of the State Fire Service (Safe Eagle Nestlings), and assist local communities with ideas on how to resolve specific problems (ORLEN Social Change Lab).

We place a strong focus on helping talented youth through an extensive scholarship offering, including Bona Fide, which facilitates students' enrolment in top universities worldwide. There is also a dedicated scholarship programme for residents of the City and County of Płock (My Above-Average Interests). Special assistance is extended to foster family group homes, including donations for treatment and rehabilitation of children, as well as funding for their essential needs and school kits.

The ORLEN Group has a proven track record of promptly responding to the Polish people's needs during crises and emergencies. After the COVID-19 outbreak, we contributed nearly PLN 145 million to support Poles. by purchasing protective equipment for medical and uniformed services, supplying hygiene and protection products to nursing homes, offering fuel discounts at ORLEN stations to volunteers of the Territorial Defence Forces, producing disinfectants and sanitizers, supporting the government in delivering its aid package for enterprises, setting up temporary hospitals in Płock and Ostrołęka, donating the necessary medical equipment to hospitals, and funding the purchase of medical laboratory tools, ambulances, medical devices and personal protective equipment.

We also demonstrated our commitment to humanitarian efforts, particularly in providing PLN 39 million in financial assistance for Ukrainian war refugees. As part of our CSR initiatives, we donated heated tents that were set up near the Poland-Ukraine border to distribute hot meals and drinks. Over 30,000 litres of fuel was transferred to the City of Przemyśl to support the refugee relief effort. We also offered hotel facilities for those displaced by the conflict and donated food from our service stations to civilians in Kiev. Employees of the ORLEN Group actively engaged in volunteer work to assist refugees, staging in-kind donation drives in various cities and delivering the gifts by humanitarian convoys to Ukraine.

We have a track record of supporting hospitals, including the Military Medical Institute, the Provincial Hospital Complex in Płock and, since 2018, the Children's Memorial Health Institute, consistently increasing the scale of assistance provided to the facility. In 2023 alone, the ORLEN Group together with its corporate foundation made a generous donation exceeding PLN 2.3 million, which was used by the institute to upgrade its ambulance entrance and two treatment rooms in the Emergency Unit, and to procure a new ambulance and two additional vehicles for transporting nutritional preparations.

The ORLEN Group engages with local communities, particularly in the cities where our offices are located. For many years, we have implemented the ORLEN for Płock scheme, delivered through long-term scientific, cultural and sports projects. Our commitment to environmental stewardship is demonstrated through initiatives such as tree planting, sowing flower meadows, and protecting endangered species. In Płock, we initiated a nationally unique health promotion programme focused on



disease prevention, medical care support, and health monitoring for residents. In 2022 alone, the ORLEN Group delivered 34 projects in Płock, covering various areas such as supporting the development of young handball players, subsidising half-day sports, culture and arts camps for children and youth, and educating residents on safety and ecology.

ORLEN also maintains a close connection with Gdańsk and the entire region of Pomerania, implementing numerous initiatives for the local community. One of them is Headed for the Baltic, a collaborative project run with the University of Gdańsk Development Foundation and its Hel Marine Station, focused on activities to protect biodiversity of the Baltic Sea. A significant emphasis was also placed on supporting educational projects concerned with environmental protection and raising awareness of the presence of plastic and microplastics in the Baltic Sea.

SELECTED AREAS OF THE ORLEN FOUNDATION'S ACTIVITY AND FINANCIAL ENGAGEMENT

Area	2016	2022	
Scholarships	994 785 zł	3 563 875 zł	+258%
Culture, science and national heritage	918 393 zł	8 099 365 zł	+782%
Safety, rescue and civil protection	537 279 zł	5 328 934 zł	+892%
Health protection and promotion	495 853 zł	24 797 927 zł	+4901%
Social welfare and community outreach	751 388 zł	8 624 300 zł	+1048%
Physical culture and sports	479 313 zł	2 599 264 zł	+442%
Education and youth development	168 032 zł	8 020 724 zł	+4673%

Recognised sponsor of sports and culture

The ORLEN Group has established itself as the largest sponsor of Polish sports and culture. The primary focus of our sponsorship policy is on sports. Over the past eight years, we have significantly expanded our sports sponsorship engagements. Since 2016, the number of individual contracts with athletes and other competitors rose from 12 to nearly 100, with sports clubs – from 15 to over 70, and with sports associations – from 3 to 11.

Our flagship project in this area is the sponsorship of the Formula One team. In 2022, we were the naming-rights sponsor of the Alfa Romeo F1 Team and we supported Robert Kubica, their reserve driver who was also competing in WEC (World Endurance Championship) races. Since 2023, we have carried on our strategic project to ensure the ORLEN brand's presence in Formula One as the Main Partner of Scuderia Alpha Tauri. The ORLEN Team, established two decades ago, features leading figures in Polish motorsports, notably the famous racing and rally driver Robert Kubica, the two-time individual world champion in speedway Bartosz Zmarzlik, the multi

ple DAKAR Rally participant Kuba Przygoński, the fastest Polish motorboater Bartek Marszałek, the Żelazny Group, known for its aerial acrobatics, and the multiple world and European paragliding champion Wojtek Bógdał.



The ORLEN Group has long-standing relationships with key partners: the Polish Olympic Committee, the Polish Volleyball Association and the Polish Athletics Association. Through the recent mergers, we have further expanded our collaborations to include the Polish Football Association, the Polish Skiing Association, the Polish Handball Association, as well as individual competitors: the rally driver Kajetan Kajetanowicz, the canoeist Karolina Naja and the wrestler Tadeusz Michalik. We provide these organisations and individuals with long-term support in preparation for major sporting events, having contributed to numerous successes of Poland's representatives at Winter Olympic Games, World Volleyball Championships and World or European Athletics Championships.

Our sponsorship commitment goes beyond professional sports, as we actively engage in efforts aimed at nurturing aspiring talent who may become the next generation of champions. In 2022, our support reached a record number of 300,000 children. Emphasising community activation, the ORLEN Group collaborates with football, handball and basketball clubs in the cities where it operates, supporting prominent teams such as Wisła Płock, Wisła Kraków, Lechia Gdańsk, and Anwil Włocławek. We also boast a long track record of promoting sports among individuals with disabilities. In 2022 alone, we provided assistance to nearly 5,000 such individuals. For instance, we continued our strategic cooperation with the Polish Paralympic Committee, represented by 11 athletes and 4 guides at the 2022 Winter Paralympics in Beijing.

Culture is, alongside sports, another focal area of the ORLEN Group's sponsorship activities. We provide support to several prominent institutions of culture, having established partnerships with the Teatr Wielki – Polish National Opera, the largest opera house in Europe, and the National Chopin Institute, dedicated to promoting the legacy of the renowned Polish composer and pianist. In addition to these, we have backed numerous other key institutions of culture, including the National Museum in Warsaw, the Royal Castle in Warsaw, the Józef Piłsudski Museum in Sulejów, and the National Museum in Poznań. Our sponsorship extends to cultural events such as the 26th Ludwig van Beethoven Easter Festival at the National Philharmonic held in 2022, the Eufonie International Festival of Central and Eastern European Music, the Polish Feature Film Festival, and the EnergaCamerimage International Festival of the Art of Cinematography. Our cultural sponsorship strategy is centred on several pillars. On the one hand, ORLEN contributes to the protection of Poland's national and cultural heritage, advocates for outstanding Polish artists and national identity, and promotes art, music and literature among the public, nurturing a sense of national pride.

On the other hand, we actively support patriotic projects, serving as a strategic partner of the HeroesON Warsaw Uprising Insurgents award, which recognises individuals and institutions contributing to the promotion of knowledge about the 20th-century history of Poland, and committed to historical and patriotic education.

Strong Polish brand with high visibility in Europe

Our ambitious sponsorship policy yields significant marketing benefits, having positioned ORLEN as the most valuable Polish brand according to the Rzeczpospolita daily's ranking for 2021 with an impressive valuation nearing PLN 10 billion. This is nearly double the brand's value in 2015, which was estimated at PLN 4.5 billion.

As Central Europe's largest multi-utility group serving more than 100 million customers, the ORLEN Group has solidified its strong position among the world's leading energy corporations. Our products and services are appreciated by both retail and institutional customers.

An important step in enhancing the ORLEN brand's visibility abroad involves strategic rebranding of our service stations. As a result of recent efforts, all our stations in Slovakia, Lithuania and Hungary now operate under the ORLEN logo. In the Czech market, the rebranding process commenced in 2019. Currently, over 370 of the 436 facilities (nearly 90%) previously operating there under the Benzina brand have acquired the ORLEN sign and logo. A rebranding wave is also going through Germany, with around 100 stations within our network expected to bear the ORLEN logo by the start of 2024.

On the way to emission neutrality

A larger scale of operation also means greater responsibility. Therefore, in 2020 ORLEN, as the first fuel company from Central Europe, declared the goal of achieving emission neutrality by 2050. Decarbonization plans are a key element of the ORLEN Group's business strategy, which is why the company decided to increase greenhouse gas emission reduction targets by 2030. The "Climate Policy of the ORLEN Group" announced in June 2023 explains how these new, even more ambitious goals were set and, what is more important, how the company intends to achieve them.

Another important document is the "Sustainable Development Strategy for 2024-2030" published in December 2023. The document defines the organization's approach and goals in the area of minimizing the impact on the climate, environmental protection, as well as working conditions, cooperation with local communities and responsible management. It includes, among others: Just Transition Program, addressed to communities in areas undergoing transformation. Implementation of ESG assumptions will strengthen the competitiveness of the ORLEN Group and will allow for mitigating business risks and will enable long-term value creation for shareholders.



07 Challenges faced by the ORLEN Group

At the ORLEN Group, we hold the belief that energy transition can be instrumental in unlocking the economic and energy potential of Central and Eastern European countries. To accomplish this, it is crucial to identify one's position on the energy transition map and compass the direction of the national energy and climate policies. As the region's leading energy sector player, we are pursuing this objective with a view to building an even stronger multi-utility group and spearheading the energy transition in Central Europe. Following the mergers with Energa, PGNiG and LOTOS, the ORLEN Group has undergone a transformative evolution not only in the scale of its operations but also in the strategic development directions compared with 2015.

Here's a look at the key challenges facing the ORLEN Group in the years ahead.

Completion of operational integration following the mergers with PGNiG and LOTOS

Post-merger integration is always a process posing unique challenges, particularly for large business organisations operating in the energy sector like the ORLEN Group. Efforts to optimise the organisational structure and business models are critical for realising synergies, fostering operational efficiency and achieving sustainable growth objectives.

The following issues are relevant to the ongoing integration processes:

- Building the upstream area: The integration of Polish upstream operations has commenced, but it is imperative to complete this process, further enhance the efficiency of the upstream business and review the ORLEN Group's portfolio of foreign upstream assets.
- Consolidating the renewable energy and heat generation area: A coordinated approach is necessary for the development of renewable energy projects, and so is effective consolidation of entities responsible for heat generation.
- Reorganising the retail area: The objective is to develop and implement an integrated operating model for the retail segment. It will translate into smooth management and supervision over ORLEN's retail sales across

the B2B and B2C sectors, along with coordination of the decision-making centres.

- Reorganising the support functions: Adopting an integrated approach to support functions, such as IT, finance and human resources management, can enhance operational efficiency and bring down costs.
- Strengthening the area responsible for achieving the net zero target: Given the increasing prominence of sustainability, strengthening the corporate functions responsible for delivering the organisation's net zero vision is essential for intensifying these efforts and implementing viable strategic development projects.

The right organisational model is crucial as the groundwork for the ORLEN Group's effective operations. A well-tailored action plan is a key success factor in a dynamic and competitive business environment. Such model must be based on adaptability to change, effective delivery of the business strategy, and operational efficiency.

Efficient execution of investment in the petrochemical segment

Decreasing fuel consumption will reduce the demand for refining capacity. At the same time, the remaining capacities will have to be adjusted to changes in the demand structure, providing inputs for the growing petrochemical production. Therefore, investments are necessary, the implementation of which brings many challenges, but also constitutes an opportunity for further development of this segment. Intelligent project management, innovation, operational flexibility and a focused sustainable development strategy are important in this respect.

ORLEN follows this trend by investing in the Olefins 3 project. In addition, joint petrochemical investments as part of our newly formed partnership with Saudi Aramco are being considered, both in Poland and abroad. Work is ongoing to prepare relevant analyses and potential implementation methods. Therefore, it is key to adopt a holistic approach to the strategic plan for the ORLEN Group's petrochemical production, taking into account the shifting market trends.

Accelerated transformation

As the energy transition gains momentum and regulatory frameworks demand increased commitment and effective action, the ORLEN Group faces the need to fast-track its transformative journey. For instance the RED III directive has raised the EU's ambitions regarding the pace and intensity of the process to decarbonise the European economy. Therefore, our strategy for the roll-out of alternative fuels requires a novel approach to managing transition-related aspects. Above all, it will involve enhancing managerial competencies in the following focus areas:

- Building new business lines and developing expertise in emerging sectors such as biogas and biofuels, energy storage, CCS/CCU;
- Strengthening capabilities for coordinating projects across different segments and internationally;
- Developing expertise in analysing the evolving regulatory framework;
- Cultivating a culture of adaptability and investment flexibility;
- Strengthening areas relevant to emerging technologies.

Implementation of upstream projects

The ORLEN Group has accumulated an extensive portfolio of upstream assets, both in Poland and internationally, prioritising projects on the Norwegian Continental Shelf. Having its own reserves of crude oil and natural gas enhances control over their supplies, but also serves as a strategic hedge against global market volatility and potential disruptions in Baltic Pipe deliveries.

Through its upstream operations, the ORLEN Group covers the entire value chain in the petroleum industry, from exploration to refining and product distribution on the end market. This integrated approach offers greater control over the processes involved, fostering adaptability to dynamic market conditions. This is why it is essential to continue efficient management of the upstream portfolio and strategic directions for acquiring new upstream assets.

Increased investment in electricity networks

Countries of Central and Eastern Europe are expected to reduce final energy consumption by leveraging technology advances to improve energy efficiency. Contributors to this process will include smart grids and energy management systems, but also electrified transport and wider adoption of heat pumps. Widespread electrification is seen as a strategic means to achieving the net zero targets, as it can deliver meaningful emission reductions and comprehensive decarbonisation of electricity, heat generation and transport. Added benefits of electrification include improved efficiency and reduced energy losses.

The energy transition landscape is marked by an increasing emphasis on renewable sources. Electricity networks must be flexible and scalable to integrate intermittent sources such as wind and solar, facilitating better distribution of renewable energy, despite variable weather conditions.

Therefore, it is necessary to accelerate the ORLEN Group's electricity network upgrades. Such investments have a potential to support sustainable development goals by improving energy efficiency, reducing greenhouse gas emissions and increasing the share of renewables in the overall energy mix, thereby enhancing our compliance with the environmental regulations. Network upgrades will also

facilitate the integration of state-of-the-art technologies and infrastructure digitalisation. This, in turn, can help improve the reliability of energy supply, a thing of crucial importance to both households and businesses.



