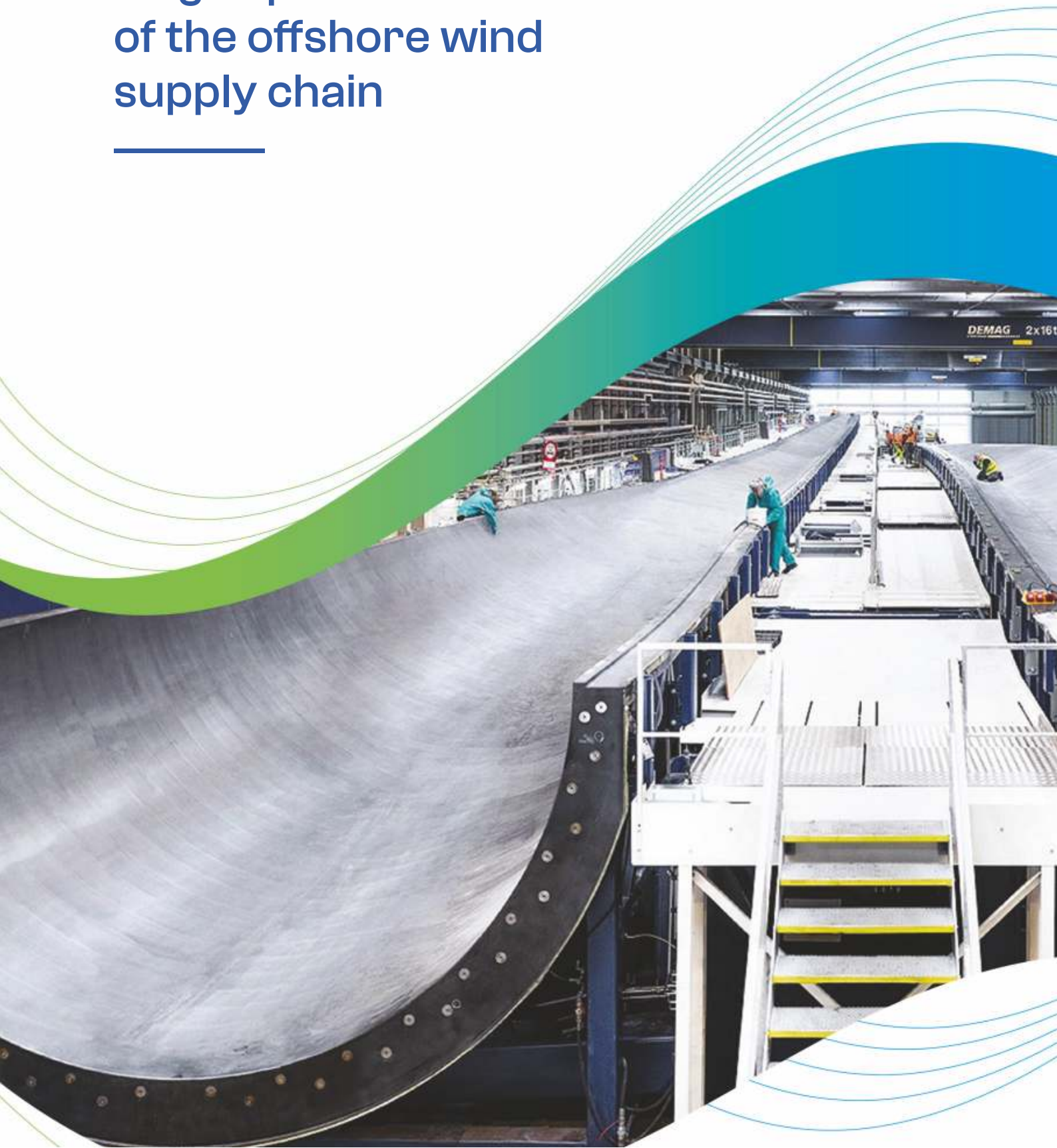


Polish industrial hub of the wind sector



Flagship investments of the offshore wind supply chain



Introduction

Wind energy is one of the key driving forces behind the energy transition and decarbonization. Energy security is not only about the stability of the supply of green energy, it is also about the ability of domestic and European industry to provide adequate production capacity for the implementation of RES investment projects (including wind) within the assumed timeframe. **The Wind Industry Hub Foundation has collected information on flagship wind power supply chain investments that are already operating in Poland or have recently confirmed the location of industrial plants in our country. The**

entities identified in the WIH study will soon offer a total of More than 11 thousand well-paid jobs in, among others, installation and service ports, wind turbine component factories, assembly plants, factories for transformation stations, cables or wires. And this is just the beginning, as it is estimated that offshore wind energy projects alone could create 39-63,000 jobs in Poland by 2030, including 13,000-21,000 direct 10-17,000 indirect jobs in OWE. The dynamic growth of investment that has taken place in recent years clearly indicates that Poland will be the regional industrial hub of the wind sector!



Flagship investments

Ports & Production

Investment: Installation Port of Swinoujscie



The site of the former Marine Repair Yard SA in Swinoujscie
16 Ludzi Morza Str., 72-602 Swinoujscie.



INVESTOR

Orlen Neptun (ORLEN Group) and Szczecin and Swinoujscie Seaports Authority SA.



100
WORKPLACES

Some of them will be graduates of the Swinoujscie Maritime School Complex, who have already begun specialized training conducted by ORLEN Neptune professionals.



What do we know about the contractors?

The project engineer for the marine part is firm Sweco Polska Sp. z o.o.; the contractor for the marine part - PORR; Construction Corporation DORACO Sp. z o.o. - rebuilds wharves for the installation terminal in Swinoujscie/Contractor for the land part - Budimex.

The Orlen Neptun company will be responsible for the land part of the work, while the hydrotechnical part, i.e., among other things, the expansion of quays, will be handled by the Szczecin and Swinoujscie Seaports Authority. **The land part of the installation terminal is being** built on an area of nearly 20 hectares. Key components of offshore wind turbines, such as towers, blades and nacelles, will be handled and stored here. The terminal will also be able to receive offshore transformer stations weighing up to 24,000t. The site will also include communications infrastructure and a new administration and office building. The Szczecin and Swinoujscie Seaport Authority is responsible **for the construction of the hydrotechnical part of the** investment. Its task is to build and put into operation two new quays. At the same time, the waterway will also be dredged on the section from the grinding turntable to the new terminal. The new quays will be characterized by technical parameters that are above standard for port conditions, mainly in terms of permissible payloads. The length of the wharves, which in both cases is about 250 meters, will enable the largest currently available specialized jack-up vessels for the installation of 14 MW and larger turbines, as well as heavy lift vessels for the transportation of wind turbine foundations, to operate in Swinoujscie. The terminal is expected to be ready in early 2025, with a target of installing more than 80 offshore wind turbines per year. The completed terminal will become the site for the pre-assembly of wind turbine towers more than 100 meters high and weighing about 1,000 tons each, which are to arrive at the site by specialized jackup vessels. Phase I of the investment will support (component installation) the Baltic Power farm, which will be built about 23 km from the shore, at the level of Leba and Choczewo, with a total capacity of 1140 MW (76 turbines on an area of about 130 km²). Construction will start in 2024, and the first electricity will flow from it, according to the announcement, in 2026. As for Phase II, according to the decision of the Ministry of Infrastructure on May 30, 2023. Orlen was granted 5 new licenses, which will increase generation potential by about 5.2 GW. The location of the installation port will also allow it to handle foreign investments, carried out, for example, in German, Swedish or Danish waters. Yet another advantage of the terminal's location in Swinoujscie is its proximity to the Danish firm Vestas' turbine plant under construction in Szczecin, which will be used at the Baltic Power farm.



“ - We are consistently concluding further contracts with offshore companies for the installation of all components for the Baltica 2 farm. We have already chartered ships for the installation of turbines and cables, and now also a fleet that will install the foundations, with which the construction of the power plant at sea begins. The start of the foundation installation work is scheduled for 2026, and a year later the first electricity from Baltica 2 will flow to consumers,” said Arkadiusz Sekściński, CEO of PGE Baltica, which implements the PGE Group's Offshore Program.

”

Investment: Installation Port of Gdansk



Gdansk.



PGE and the Baltic Hub (30 percent of PFR's holdings).

INVESTOR



The second most advanced offshore wind project, the Baltica 2 and 3 farms, which PGE is developing together with Ørsted, is to be built from the installation port in Gdansk, where a new T5 wharf is to be built. According to the official information so far, efforts have been made in the areas of financial assembly, project documentation, environmental issues and the lease of land for the T5 terminal. On March 1, 2022, the government passed a resolution changing the location of the installation terminal for offshore wind farms from Gdynia to Gdansk. According to the document, it is to be ready by June 1, 2025. It also stipulates that, as agreed, the terminal will be built in "the outer port, i.e. the part of the port created by inundation by converting a body of water (land covered with water) into land (land not covered with water)." Shortly thereafter, PGE signed an agreement with Baltic Hub (then DCT), in which the Polish Development Fund has a 30 percent stake. Baltic Hub established a special purpose vehicle to implement the project. A team responsible for work on the T5 terminal was formed, a designer was selected and preparation of technical concepts for the terminal began. Geotechnical and laboratory studies were conducted at the same time. Technical teams developed assumptions for the construction project. Technical documentation was created, on the basis of which the construction project will be developed. At the same time, the path of obtaining permits and negotiating the financing of the project is being carried out. The start of the investment is planned for the second half of 2024, while the T5 wharf is to be put into operation in 2026. The next step is to be the selection of a general contractor.



Investment: Service port of Leba



Site of the former shipyard, Leba.



INVESTOR

Equinor, Polenergia.



100
WORKPLACES

A service base in Leba will be responsible for the safe and proper operation of the Baltic II and Baltic III offshore wind farms for 30 years of their operation. This logistics and operations center will be built on the site of a former shipyard with the support of local contractors and suppliers. It will include, among other things, a center for remote control, control and operation of the wind farms, a warehouse for spare parts and a wharf for mooring the vessels. The base is expected to give employment to about 100 specialists. Equinor and Polenergia are jointly developing three offshore wind farm projects with a total capacity of about 3 GW. In the first phase of support - by 2030 - the Baltic II and Baltic III farms will be built on the Slupsk Shoal. In the next phase - Baltic I, which is located on the Central Shoal, about 80 km from the shore. As part of the investment, it is necessary to deepen and maintain the Leba waterway, but also to expand the eastern breakwater, which in the future will allow the berthing of SOV vessels, i.e. vessels that will be used to service farms further from the shore than the farms of the first phase of offshore development in Poland.

In addition, the Baltic Offshore Wind Farm Information Center, the only one available year-round in Poland, has already opened in Leba. The center, opened in mid-2023, offers information on Baltic offshore wind farms, the operations and service base in Leba, career prospects and jobs. It is also a place of education for children and young people, where activities and knowledge competitions with prizes are organized for them. An educational play corner has been prepared for the youngest. The information center features a mock-up of an offshore wind farm, and a presentation about the projects on a large monitor and iPad. The information, prepared in an accessible and attractive form, is designed to familiarize those interested with the environmental, economic and local benefits of offshore wind energy. The information desk also features a form for submitting comments and complaints to promote dialogue with the local community.

The information center is open five days a week from Wednesday to Sunday from 2:00 p.m. to 6:00 p.m. The facility is located near the Municipal Office at 88 Kosciuszki Street in Leba.



“

Selection of Leba as the location of the operations and maintenance base Baltic II and Baltic III offshore wind farms is an important step in the implementation of our offshore wind farm projects in the Baltic Sea. This long-term investment will contribute to the creation of a in Leba the center of offshore wind energy in Poland. We support the development of local communities, and the implemented projects together with Polenergia and our O&M base mean new jobs and new investments for Leba and the entire region. We are happy to contribute to a new chapter in Leba's maritime tradition. We will continue dialogue with all stakeholders as the development of the Polish offshore wind energy sector - Michał J. Kołodziejczyk President of the Management Board of Equinor Polska.

”

Investment: Service port of Leba



Port of Leba.



INVESTOR

Baltic Power,
a JV of the ORLEN Group,
and Northland Power.



60

WORKPLACES

What do we know about the contractors?

Antea Poland - project engineer, Erbud - contractor.

A service base will be located in Leba to service the Baltic Power offshore wind farm (a joint project of ORLEN Group and Northland Power). It will be the home port for vessels transporting equipment and technical personnel responsible for maintaining the investment. The base will employ a total of about 60 employees and will service the farm for its entire life cycle, i.e. a minimum of 25 years. The service base in Leba will be ready in 2025, a year before the Baltic Power farm is put into operation. An area of about 1.1 hectares will house, among other things, a farm spare parts warehouse and a workshop. The wharf will be able to accommodate vessels with a maximum length of 35 meters. The base will be permanently serviced by 3-4 specialized vessels designed to transport equipment and service personnel. Each of them will take on board up to 24 technicians with full equipment. The estimated cost of the investment is about 62 million zlotys. The most important tasks of the technicians operating from the base will include maintaining the proper operation of the farm, among other things, through cyclic inspections of the wind turbines. During them, service technicians will verify the efficiency, wear and operating parameters of individual turbine components, in accordance with strictly defined procedures, and, if necessary, make ongoing repairs. The technicians' work will be supported by a production management information system, which, while monitoring the efficiency of the farm on an ongoing basis, will also indicate turbines or their components requiring, for example, routine replacement.

The Baltic Power offshore wind farm is the most advanced offshore wind project in Poland. The preparation stage was completed in September 2023, with full financing obtained from 25 international financing institutions. The project, on schedule, has obtained the necessary construction permits and contracts for all key components. Baltic Power will be one of the first farms in the world to install 15 MW wind turbines and the first in the world to have a significant portion of its turbine towers made of low-carbon steel. With completion in 2026, Baltic Power will be the first Polish offshore wind farm operating in the Baltic Sea, covering 3% of the country's energy needs while reducing CO₂ emissions by about 2.8 million tons per year.



“

Baltic Power symbolizes a watershed moment for the country's renewable energy sector. It is the first and only investment in Poland, which has started the construction phase on schedule, obtaining financing from 25 international institutions. The choice of the location of the service base in Leba, providing only 40 minutes to reach the farm, is crucial for ensuring the highest efficiency and stability of energy supply energy. Thus, the service port in Leba not only perfectly fits the logistical needs of the project, but also becomes a significant contributor to the local labor market by creating some 60 new jobs. In this way, Baltic Power not only contributes to the development of offshore wind energy in Poland, but also becomes a key element in the development of the local economy and infrastructure in and around Leba - Jarosław Broda, CEO of Baltic Power.

”

Investment: Service port of Ustka



Port of Ustka.



PGE Baltica.

INVESTOR



An operations and service base for the PGE Group's offshore wind farms and an Offshore Wind Energy Competence Center will be established in the Port of Ustka. Offshore wind farms - Baltica 2 and Baltica 3 (PGE Baltica) will have their service port in Ustka. Specialists working at the service base on a continuous basis - 24 hours a day, seven days a week - will monitor the operation of offshore wind farms and the condition of equipment located offshore and onshore. The base will provide technical and storage facilities for service crews. It will include a warehouse for spare parts and tools necessary for servicing offshore wind farms, staging areas for service units, as well as office and welfare facilities. The base will also coordinate emergency and routine maintenance work. A Center of Competence for Offshore Wind Energy will also be established at the Port of Ustka. In it, future specialists will acquire qualifications and competencies to work on the maintenance of infrastructure and development of offshore wind power plants. The Competence Center will also test and implement new innovative technologies related to offshore wind energy.

The operations and maintenance base will be built by PGE Baltica. The area on which it will be built is located between Bohaterow Westerplatte Street (on its eastern side) and the banks of the Slupia River. The redevelopment of the wharf has been planned in such a way as to allow some of the area to be used by technical personnel earlier, while offshore wind farms are still under construction. According to the schedule, the first construction work will begin in 2024. The service center will begin operations in 2026. The current infrastructure in the Port of Ustka is sufficient to handle service vessels, but not larger vessels that go to sea for many days. UM Gdynia has had a plan for many years to expand the port so that larger ships can also enter. The cost of this investment, along with onshore infrastructure (roads, railroads) was expected to be PLN 1.5-2 billion, but for some time there has been talk of changing the concept and a smaller scope of investment, which would focus mainly on wind energy.

Investment: Service port of Ustka



Western Wharf
of the Port of Ustka.



RWE.

INVESTOR



RWE will locate an operations and service base for the F.E.W. Baltic II project in the Port of Ustka. The base will be located on the Western Quay and will be able to accommodate up to 4 CTV service units. The main rationale for choosing Ustka is the rich port infrastructure, welfare facilities for employees, the location of the shipyard allowing ongoing servicing of CTV vessels, and the possibility of bunkering vessels. Also key to the choice of this location is its distance from the F.E.W. Baltic II farm project. The purpose of building an operations and maintenance base in Ustka is to create facilities for servicing the F.E.W. Baltic II farm during its entire period of operation, i.e. for at least 25-30 years. An administration and control building, meeting the international BREEAM certification standard, will be built at the Port for monitoring and servicing the wind farm. With the establishment of the base at the Port of Ustka, RWE will be able to create more than one hundred direct and indirect offshore jobs for the local community (including in the professions of marine coordinator, technician, engineer, warehouseman, port and customs service's employee).

Taking into account its future intensive involvement in the life of the local community, RWE has already begun a series of activities aimed at building friendly relations, as well as establishing the RWE brand in the public consciousness as a trustworthy, stable partner. Each year RWE is a partner in municipal events, conducts educational campaigns for primary and secondary schools in the Ustka, Slupsk and Gdansk areas, and cares about the quality of water in the harbor basin (cooperation with the MARE Foundation in fishing out plastic waste from harbor waters with a sea basket). RWE maintains a dialogue with the fishing community. Working with this professional group, the company organized public consultations to ensure transparent communication about the project, its impact on fisheries and the marine environment, and carried out a project to re-train fishermen and prepare them for offshore wind farm servicing. Every year, the firm is present at the Edu Offshore Wind industry job fair.

Investment: Service port of Wladyslawowo



Wladyslawowo, port, location at the landing quay and passenger pier.



INVESTOR

Ocean Winds, A Spanish-French joint venture between EDP Renewables and Engie.



About 100 by analogy with other ports (data not available).

A 3,000 m² area located at the landing quay and passenger pier will be used to build an operations base maintenance for the maintenance of the BC-Wind offshore wind farm. The agreement with the port manager, firm "Szkuner", concerns the delimitation of two areas: a storage and logistics area of 3,000 m² and a quay about 60 m long. The official signing of the lease agreement took place on May 27, 2023 in Wladyslawowo. The agreement stipulates that the developer will establish its service base for the BC-Wind project on the land leased from the port. At Ocean Winds' service base at the Port of Wladyslawowo, the developer will construct office buildings, warehouses and storage yards. The port is also providing a wharf from which Ocean Winds will conduct all operations with its vessels. The base is expected to be ready in early 2025. The quay's parameters will be adjusted for light, high-speed, CTV-type vessels. Such vessels have a draft of 2-2.5 meters. Equipment, sometimes quite heavy, will be loaded onto these vessels. This requires a quay with a load capacity of at least 10 kN per m². The route from the port to the farm area is 20 nautical miles and will take about 75 minutes (at a speed of about 16 knots).

Ocean Winds is a Spanish-French joint venture between EDP Renewables and Engie. Among other things, the company focuses on the development of floating wind farms. Ocean Winds in Poland is developing the BC-Wind project, divided into two adjacent sites, named B and C. BC-Wind will generate a total of 399 MW. The farms will be located about 23 kilometers north of Choczewo and will cover an area of about 90 square kilometers. Up to 31 turbines will stand on them. Energy from them is expected to flow in 2027.

Investment: Tower factory



Gdansk, vicinity of Gdansk Shipyard, southern end of Ostrow Island.



INVESTOR

Baltic Towers Sp. z o.o., a JV of IDA S.A. and GRI Renewable Industries, S.L.



Baltic Towers was established in 2023 jointly by the Industrial Development Agency and Spanish company GRI Renewable Industries, S.L., and is pursuing a joint venture project to build a new tower manufacturing facility for offshore wind farms. GRI Renewable Industries, S.L. is a firm with more than 15 years of experience that has become a key player in the wind energy industry, with a total of 16 factories in 8 countries: Spain, Brazil, India, China, the United States, Turkey, South Africa and Argentina.

The aim of the ongoing investment is to build a factory that will produce towers for offshore wind turbines. The investment has received support from the Polish Investment Zone for the construction of a new production and warehousing hall worth about 200 million euros, and it is scheduled to be launched in 2025 (second quarter). The newly built plant will create 450-500 new jobs. The plant will have a production capacity sufficient to manufacture more than 150 towers per year. The 6.2-hectare production hall with heavy lifting capacity is a production hall capable of producing sections of up to 500 tons, 50 meters in length and 10 meters in diameter.

Investment: Baltic Industrial Group



15/20 Na Ostrowiu Str.,
80-873 Gdansk.



INVESTOR

IDA S.A.



The Baltic Industrial Group was established by the Industrial Development Agency to integrate subordinate companies operating in the shipbuilding and Offshore markets. The core offerings of the Baltic Industrial Group (GPBaltic) are large-scale steel structures for the wind tower, Onshore & Offshore and shipbuilding industries. The group also provides manufacturing and non-manufacturing services.

Baltic Industrial Group is the parent company of an established holding company comprising: Baltic Operator, Gdansk Shipyard and Energomontaż-Północ Gdynia. In accordance with its transformation plan, GPB is unifying its sales, marketing, finance, purchasing, project management and HR processes in order to make the best use of existing potential, diversify revenues, increase the efficiency of its operations, achieve optimization and development of manufacturing techniques in the wind power, Offshore, shipbuilding and infrastructure product segments. The Baltic Industrial Group aims to become a general contractor (EPCI) in the wind power market, as well as a manufacturer and supplier of fully-equipped units for Polish and foreign shipowners.

Sections of onshore and offshore towers, trafostations, support structures, blocks and ship hulls are just a few of the numerous projects that Group entities have completed over the decades.

The vast majority of projects are supervised by recognized international classification societies such as BV, DNV GL, ABS, LR, TUV, SLV, PRS, UDT. GPB Group companies have implemented an Integrated Management System in accordance with PN-EN ISO 9001:2015, PN-EN ISO 14001:2015, PN ISO 45001:2018.

The group leads:

- ▶ high-volume production of towers for onshore wind power, and is developing the acquired competencies for use in future production of towers for offshore wind power, with a focus on the Baltic Sea region.
- ▶ manufacture of fully equipped steel structures and equipment for the Offshore sector, ranging from lifting equipment to subsea structures to complete process modules for vessels. It supplies structures such as marine transformer stations (MST), secondary steel, piling templates, foundation elements (pile sleeve, pile cluster, anode cages), and TP for jackets.
- ▶ building seagoing vessels of various types and applications. In its more than 70-year history, the Group has built more than 1,000 seagoing vessels of various types and applications for gunboats from around the world. The goal is to continue cooperation on thin-walled structures and to develop cooperation with customers in making partially equipped hulls and fully equipped vessels.
- ▶ in two locations, i.e., in Gdynia and Gdansk, manufacturing and non-manufacturing services.

As part of its production services, it offers sheet rolling, sheet and profile cutting, spatial pipe cutting, drilling, milling, turning, surface planning. It performs anti-corrosion of steel structure elements: sandblasting, shot-blasting, painting, and wooden plywood stenciling.

As part of its non-manufacturing services, it rents machinery and equipment, leases yards, halls, offices. It performs services with wharf cranes, hall cranes, and rents wharves for loading at the Port of Gdynia. In Gdansk, it offers berthing of vessels at Kaszubski quay, mooring services, services performed with quay cranes, cranes on the hall leases: yards, halls, offices, checkroom spaces, tele technical channel, rental of resources (e.g. check weights, bouncers, etc.), opening the bridge for passing vessels, transport services (road transport only inside the firm self-propelled transporters, tractor, forklifts) and water transport outside (ferry Ostrow, motorboat Emilka).

Investment: Wind turbine blade factory



Skolwin, near the Island of Ostrow Brdowski.



Vestas.

INVESTOR

1000
WORKPLACES

The new factory is to produce blades for Vestas' 15 MW offshore wind turbine, the V236. It is scheduled to begin operations in 2026.



“

Vestas intends to lead the development of a sustainable supply chain in Europe that can provide the scale needed to meet the expected growth in demand for offshore wind power. Hence our plans for two new offshore plants in Poland, ” says Tommy Rahbek Nielsen, chief operating officer of Vestas.

”

Investment: Wind turbine nacelle assembly plant



Szczecin, Ostrow Brdowski, former site of the ST3 factory, area of the Debicki Canal of the Szczecin port.



Vestas.

INVESTOR

700
WORKPLACES

What do we know about the contractors?

Atlas Ward will execute the investment for Vestas.

The plant, where nacelles and turbine hubs will be assembled, will begin operations in 2025. The assembled nacelles are to go to installation ports assigned to individual projects.

Investment: Tower factory



Plot of land in Ostrow Grabowski, near the municipal waste incinerator, Szczecin.



INVESTOR

Szczecin Sea Ports Authority and Swinoujscie SA, and Windar Polska Sp. z o.o.

What do we know about the contractors?

Industria Project will carry out design work and investor supervision.


400
WORKPLACES

A manufacturing plant will begin operating in the Szczecin port in the first half of 2026, where structural elements - towers and foundations - of turbines for offshore and onshore wind farms will be produced. The manufactured elements will be transported using, among other things, sea transport.

The production facility will be built on an approximately 17-hectare property. The value of the investment on the part of the Spanish firm will be about €70 million. Its most important part will be the main building with four production lines for wind towers. There will be four industrial aisles and a warehouse for storing raw materials needed for production. In addition, an auxiliary building will be used for the assembly of internal structural components. The project also includes the preparation of several hectares of land for storage yards, as well as the construction of access roads and a parking lot with 100 spaces. The investment may prove to be a key element in the further development of Poland's infrastructure supporting the RES sector and will become an important point on the map of the European energy sector. The lease of the land at the Szczecin port is to be for 30 years.

Investment: Production facilities



Leszno 59,
06-300 Przasnysz.



INVESTOR

Hitachi Energy.

Supplier of electrical infrastructure and components for wind farms, performs electrical installations. Hitachi Energy has been operating in the Polish market for 97 years. In Poland it has offices and technology, research and engineering centers in Warsaw, Krakow, Wroclaw, Lublin, Katowice, Poznan and Gdansk, as well as factories in Lodz and Przasnysz. Hitachi has entered into an agreement with Polenergia and Equinor to supply electrical systems infrastructure for the Baltic II and Baltic III offshore projects. Hitachi ABB Power Grids is also developing a portfolio of transformers for floating facility applications in the offshore wind farm area.

Investment: Cable and wire manufacturing plant



1 Hipolita Cegielskiego St.,
32-400 Myslenice.



INVESTOR

TELE-FONIKA Group
Kable S.A.



3500
WORKPLACES

TELE-FONIKA Kable S.A. Group. (TFKable) is among the world's leading firms in the cable industry, and is a leading European manufacturer of cables and wires with significant development potential, with 100% Polish capital. Products manufactured at TFKable plants find their customers in more than 80 countries. Its product range includes about 25,000 types of cables and wires.

The company combines the good traditions of the cable industry in Poland and innovative technical solutions. TELE-FONIKA Kable Group includes several sales companies responsible for the distribution of products worldwide, 7 production plants (4 located in Poland, 1 - in Serbia and 2 - in the UK) and a Cable Waste Recycling Plant (Poland). In August 2017, as a result of the acquisition of JDR Cable Systems Limited, TFKable Group increased its assets with the addition of two manufacturing plants located in the UK, specializing in the supply of submarine power cables and trunk cables (so-called umbilicals), which include both power and data cables for monitoring and remote control, applicable to offshore structures. In addition, the commercial offer has been expanded to include high-tech production of subsea systems, as well as maintenance and installation services, located in branches in the US, UK.

Investment: Crist Offshore plant



11 Hull Street,
81-336 Gdynia.



INVESTOR

Crist.



200
WORKPLACES

Looking to the future, CRIST decided to expand its products beyond shipbuilding and focus more on production related to the offshore market. This happened in 2011, following the signing of a willingness-to-collaborate agreement between CRIST and an organization of Norwegian oil and gas firms. Since then, CRIST Offshore has successfully delivered some 12,000 tons of offshore and subsea structures. Operating from a G-08 production hall (about 2,700m² with 60 operators, the business keeps costs down. Crist has experience in quickly mobilizing production resources and up to 350 assemblers and welders, according to project demand. A final assembly yard tailored to the needs of the project, separate from shipbuilding and dedicated exclusively to CRIST Offshore production.

Crist Group was established in 1990 and has been a joint-stock company since 2010. It specializes in shipbuilding, offshore structures, steel structures, marine, civil engineering and civil engineering. As the only shipyard in Europe, Crist has already built 3 units for erecting and servicing offshore wind farms. Crist Offshore also has the largest dry dock in the Baltic Sea.

Investment: Factory of large-scale steel structures, transformer stations and offshore wind farm components



Marynarki Polskiej Street 57,
80-557 Gdansk.



INVESTOR

Mostostal Pomorze.



Mostostal Pomorze is a leader in the European market for large-scale steel structures for offshore wind power, for which it successfully builds, among other things, transformer stations and offshore wind farm components. It offers high-quality products for the wind power industry, including:

- ▶ Transition pieces
- ▶ Topsides for transformers stations
- ▶ Boat landings
- ▶ J Tube

Pomorze SA is an established and rapidly growing manufacturer of large-scale steel and aluminum structures for foreign and domestic markets. The company carries out highly advanced and specialized projects mainly for the offshore industry, including oil and gas extraction, offshore platforms, subsea installations and offshore wind power.

Investment: Shipyard "Wulkan" in Szczecin



Andrew Antosiewicz 1,
71-642 Szczecin.



INVESTOR

Stocznia Szczecińska "Wulkan" sp. z o.o.

The Szczecin shipyard intends to place a stronger bet on fulfilling orders from the offshore industry. The goal of Szczecin Shipyard "Wulkan" is to build ships in their entirety and with equipment (but not as large as they used to be) and to produce structures for the offshore industry. In 2023, it was announced that "Wulkan" Shipyard will build internal platforms that will be part of Denmark's largest wind farm being built in the North Sea. The contract with the Chinese company Dajin Offshore will run until the end of 2024. Under it, steel structures about 10 meters high and with a diameter of about 9 meters will be built at the Szczecin shipyard. These will be internal platforms (so-called secondary stele), necessary for the construction of an offshore wind turbine farm.

The Thor offshore wind farm (with a capacity of 1,000 MW) will be located off the west coast of Jutland, 22 kilometers from Thorsminde. It is expected to be fully operational by the end of 2027, providing electricity for more than one million Danish households. It is being developed by German energy company RWE. The farm will consist of 72 wind turbines from firm Siemens, standing on monopiles ordered from EEW SPC and Dajin Offshore. The latter supplier will also be responsible for supplying additional components, for the production of which it has signed contracts with three subcontractors. One of them is precisely Szczecin Shipyard "Wulkan".

The Szczecin Shipyard "Wulkan" is also carrying out another large order - the construction of a floating dock for the Maritime Repair Yard "Gryfia". It is to be a structure of about 235 meters in length and 47 meters in width, which will allow the repair of vessels weighing up to 24,000 tons. The work is expected to be completed by September 30, 2024.

Professional services

Investment: Engineering Competence Center to operate the offshore wind farm



73 Chmielna Str.,
00-801 Warsaw.



INVESTOR

Ørsted.


750
WORKPLACES

Ørsted, has been developing an engineering competence center for offshore wind farms in Warsaw since 2022. Specialists employed at the center work on Polish offshore wind farm projects and also support the group's operational activities in other markets. Ørsted's Warsaw office already employs a total of more than 750 people (including wind farm engineers, IT and new technology specialists, market development and finance experts).

Investment: MEW training center



8c Ludowa Str.,
71-700 Szczecin.



INVESTOR

Vulcan Training
& Consultancy.


50
WORKPLACES

The Vulcan Training & Consultancy Center is located in Szczecin and, together with the Vulcan Hotel, forms a complex that can offer virtually unlimited opportunities for cooperation. Thanks to the training provided at VT&C, the competencies and awareness of Oil & Gas and Wind Energy employees are raised. The staff imparts reliable and up-to-date knowledge and skills recommended by international organizations such as OPITO and GWO, which set training standards in the global Oil & Gas. and Wind Energy industry. Vulcan T&C is the only training center in Poland that meets OPITO's strictest standards, and is one of 17 centers worldwide out of 200 in existence that have implemented all levels of courses: OPITO Rigger and OPITO Banksman Slinger.

The Vulcan Center is accredited to conduct fire training. Helicopter Emergency Response Team Members (HERTM) and Helicopter Emergency Response Team Leaders (HERTL) are trained in accordance with OPITO standards. It has advanced infrastructure aligned with industry standards, covering initial training for helicopter deck operations, initial/further training for helicopter deck emergency response team members and team leader, and applying related workplace competency assessment standards.

The center has also implemented all GWO Basic Technical Training BTT modules into its offerings. The center has its own swimming pool, a HUET simulator, a fire training ground, a wall for working at height, and several conference rooms. The largest of these can accommodate 400 people, making it one of the largest in the region. There are also nearly 200 high-standard accommodations, catering and a restaurant.

Investment: Siemens Gamesa Baltic Sea Offshore Execution Centre



Gdansk,
Leona Droszyńskiego Str 24.,
in the Format building.



INVESTOR

Siemens Gamesa.


150
WORKPLACES

Siemens Gamesa, a world leader in supplying and servicing offshore wind turbines, officially opened its new office in Gdansk on December 11, 2023. Specialists employed at the center will work on offshore projects, mainly in Poland. However, as Siemens Gamesa does not yet have any wind turbine operations in the Polish part of the Baltic Sea, the center's team will also be delegated to various projects around the world. The Siemens Gamesa Baltic Offshore Execution Center began operations with the intention of employing some 80 specialists in Gdansk, supported by at least 70 technical staff active in various locations in Poland. Siemens Gamesa's strategic agreements with Polenergia/Equinor, RWE and PGE/Ørsted contributed to the opening of the center. The company was selected as the preferred supplier of turbines for three Polish projects, including the Baltic II and Baltic III offshore wind farms. And in April 2023, a contract was signed for the supply of wind turbines for the Baltica 2 project, with a total capacity of about 1.5 GW (107 turbines of 14 MW each).

Investment: BOTA WIND ENERGY



38c Nowy Swiat Str.,
80-299 Gdansk.



INVESTOR

BOTA TECHNIK.

BOTA WIND ENERGY is a company within the BOTA GROUP, dedicated to providing safe and high-quality wind turbine service work for the offshore and onshore wind power sector. BOTA TECHNIK is a firm highly specialized in the area of service and construction of offshore propulsion systems. The firm's experience and offerings cover all components of ship propulsion from engine to gearbox, shafts to propeller.



“ We have a great opportunity for development and good cooperation, which is based on trust, on good experience. The construction of offshore wind farms will allow energy independence and, on the other hand, also strengthen the role of renewable energy, which will allow us to move away from the use of fossil fuels. - noted Deputy Infrastructure Minister Arkadiusz Marchewka.

”

Investment: Ramboll



7 Bitwy Warszawskiej 1920 r. Str.,
02-366 Warsaw.



INVESTOR

Rambol Polska Sp. z o.o.

Ramboll in Poland offers engineering and consulting services in the energy and environmental fields to a diverse range of clients. It has clients in the power, gas, industrial, finance and municipal sectors. Danish Ramboll is now one of the largest firms in wind consulting and engineering worldwide.

Investment: StoGda Ship Design & Engineering Sp. z o.o.



Location 23a Otominska Str.,
80-178 Gdansk.



INVESTOR

StoGda Ship Design
& Engineering Sp. z o.o.

StoGda is a design office that is active in both the marine market, designing ships and offshore facilities, and the land market, designing industrial structures and installations and gas compression stations. The company was founded in 1997 by former employees of the Gdansk Shipyard Design Office. To date, StoGda has completed contracts with partners from all continents, and StoGda-designed ships and facilities can be found all over the world.

StoGda provides extensive design services in the following areas:

- Shipbuilding - tankers, chemical tankers, ferries, passenger ships, car carriers, container ships, etc.
- Vessels and offshore facilities - jack-up units for erecting wind farms, supply vessels, barges, pontoons, etc.
- Offshore structures - structures of drilling and mining platforms
- Land facilities - industrial structures and installations, gas compression stations
- Others - special and unusual projects.

In recent years, StoGda has participated in the design of a series of jack-up offshore wind farm vessels. The designs of such vessels are created in only a handful of design offices around the world. One of StoGda's projects, the Vidar, has received several awards, including in the category for Innovative Design.

Investment: Service integration platform for the IMF



Gdansk,
6 Narwicka Str.



INVESTOR

ASE Offshore.



100
WORKPLACES

The privately-owned ASE Technology Group, which includes some of Poland's oldest design, engineering and environmental firms, including Projmors, Biproraf, and Eko Konsult, has established a new company, ASE Offshore, with the aim of creating a platform to integrate the cooperation of Polish service firms for the OWF. The cooperation of ASE Group firms, where more than 500 engineers and experts are already employed, with partner firms is expected to allow the creation of a comprehensive offer for the preparation and development of OWF projects. Already, ASE Group firms are involved in all projects developed on the Polish market. In the next stages of development, the group also intends to enter foreign markets in Europe and Asia. In addition to specializing in conducting offshore wind project development processes from idea to construction readiness, the ASE group is developing hydrogen and energy storage technologies, which will gradually be integrated with offshore wind generation technology.

Investment: Morska Agencja Gdynia Sp. z o.o.



15 Tadeusza Wendy St.,
81-341 Gdynia.



Morska Agencja Gdynia
Ship Agency Ltd.

INVESTOR

Morska Agencja Gdynia is a leader among marine service companies in Poland. Morska Agencja in Gdynia was established in 1951 and represented foreign shipping lines, shipowners and insurance (P&I) clubs, and provided agency services for ships, over time expanding its specialization to include shipping services and job placement for Polish seafarers. The 1990s saw the development of rail freight forwarding, warehousing, distribution, and customs services, which resulted in the ability to provide comprehensive international freight services.

Investment: MEWO Subsea Solutions



16A Starogardzka Str.,
83-010 Straszyn.



MEWO S.A.

INVESTOR

MEWO S.A. is an innovative firm operating in the European offshore market and the largest independent provider of environmental, geophysical and geotechnical research services in Poland, including for the offshore wind energy sector. In Gdynia, an innovative center of integrated marine environmental research laboratories for the offshore industry was established in early 2024 as a result of cooperation between the Maritime Institute of the Maritime University of Gdynia and MEWO S.A. The goal is to improve the quality and scope of research offerings for offshore entrepreneurs. The material scope of the project includes the construction of new research and technical infrastructure and the purchase of equipment to provide innovative services based on advanced technologies. The center's location provides access to the waterfront.

The Center will, among other things, carry out comprehensive research and measurements at sea in order to acquire comprehensive information on the state of the marine environment and its resources necessary for activities in the fuel market, shipbuilding, offshore wind energy or maritime transport. As part of the Gdynia investment, the location of two buildings with research and technical infrastructure is planned. The center is to house certified laboratories, such as the Geotechnical Laboratory of the Marine Geotechnics Department, the Laboratory of the Environmental Protection Department (chemical analysis) and the Marine Electronics Laboratory (environmental hazard monitoring). The project has received founding from the Regional Operational Program of the Pomeranian Voivodeship for 2014-2020, co-financed by the European Regional Development Fund in the amount of PLN 23,202,186.87. The value of the project is 51,737,611.49 PLN.

Wind Industry Hub Foundation responds to the needs of market and industry



Recognizing the need to support the building of a strong industry and service base for the wind sector, the Polish Wind Energy Association has established the Wind Industry Hub Foundation. The purpose of the Foundation is to which by ensuring an adequate industrial base in Poland and strengthening the role of Polish companies in the supply chain.

The Wind Industry Hub Foundation was established in response to the needs of the growing wind industry. With its activities, the Foundation will strengthen Polish companies in their expansion into foreign markets and develop the flow of foreign investment into Poland. The Foundation's mission is to build strong business relationships, transfer knowledge and technology, and support the implementation of joint projects between domestic and foreign industrial entities operating in the wind sector.

Through cooperation with government administration and support of the business and legal environment, the Foundation will co-create a coherent industrial policy for Poland and stimulate the dynamic development of the Polish wind industry. The main goals of the Wind Industry Hub will also include supporting Polish companies and institutions in the implementation of the EU policy of strengthening the European industry supplying components for investments in climate-neutral energy technologies. As part of the Foundation's activities, we assume active participation in events of key importance to the sector and taking initiatives for the cooperation of the wind and associated industries.

The Polish industry urgently needs a smart roadmap directed at supporting the supply chain for Inland and offshore wind power.

Interested in more details? Contact us.

<https://www.windindustry.pl/>



Dominika Taranko

Managing Director Vice President

Wind Industry Hub

Tel: 503 140 467

E-mail: d.taranko@windindustry.pl



Piotr Czopek

Vice President Wind Industry Hub

Tel: 505 268 209

E-mail: p.czopek@windindustry.pl

Join Wind Industry Hub!



Address of WIH office in Szczecin

al. Wojska Polskiego 187/4-5
71-325 Szczecin

e-mail: biuro@windindustry.pl

Address of WIH office in Warsaw

2 Bagno Street, entrance C, loc. 212 (7th floor)
00-112 Warszawa

NIP: 852-22-72-575 REGON: 811949676 KRS: 0000097999

Janusz Gajowiecki
President

Piotr Czopek
Vice President

Dominika Taranko
Vice President

Arkadiusz Sekściński
Vice President