

Investments in European manufacturing facilities

WindEurope Market Intelligence

INTRODUCTION

The wind energy supply chain has faced significant challenges in recent years. Input costs have surged, and persistent permitting bottlenecks have worsened the situation. Additionally, poor auction designs in several countries have undermined the revenues of both wind farm developers and turbine manufacturers. To meet the growing demand, manufacturers and suppliers need to scale up production and build new factories, which will require substantial financial and policy support.

Despite these obstacles, progress is being made. There have been investments of at least **€4bn since 2022 in new manufacturing facilities for nacelles, blades, towers, foundations, cables, substations, and other grid components**. These investments will add new facilities to the European wind energy supply chain.

Additionally, many **factories have announced expansions, with investments totalling at least €1.2bn**. It's important to note that these figures represent the minimum investment, as some announcements have undisclosed amounts.

Beyond manufacturing, ports have invested at least **€3.2bn** to upgrade and build new terminals, and marine contractors have announced vessel orders for at least **€2bn** for 10 new vessels to support the expanding offshore wind sector.

This document provides a summary of the investments announced for both new and expanded manufacturing facilities in the wind energy supply chain.

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NACELLES

Vestas Nacelles Factory Szczecin (New)

- **Component:** Nacelles
- **Location:** Szczecin, Poland
- **Investment:** €325m
- **Year Announced:** 2024
- **Commissioning Year:** 2025
- **Status:** Under construction
- **Description:** Vestas is establishing an assembly factory for offshore nacelles in Szczecin, Poland. The factory is expected to start operations in 2025 and create 700 direct jobs.

Siemens Gamesa Esbjerg factory (New)

- **Component:** Nacelles
- **Location:** Esbjerg, Denmark
- **Investment:** €50m
- **Year Announced:** 2024
- **Commissioning Year:** 2026 *est.*
- **Status:** Under construction
- **Description:** Siemens Gamesa received DKK 375m to establish manufacturing and assembly capacity for offshore nacelles, office facilities, outdoor storage area, and transport corridors to accommodate increased activity in Esbjerg.

ZF Lommel serial production (Expansion)

- **Component:** Drivetrains
- **Location:** Lommel, Belgium
- **Investment:** Not specified
- **Year Announced:** 2024
- **Commissioning Year:** 2024
- **Status:** Completed
- **Description:** The expansion included three serial production lines for complete onshore and offshore powertrains and SHIFT gearboxes.

BLADES

Vestas Taranto Factory (Expansion)

- **Component:** Blades
- **Location:** Taranto, Italy
- **Investment:** €50m
- **Year Announced:** 2022
- **Commissioning Year:** 2023
- **Status:** Completed
- **Description:** Vestas began serial production of V236-15.0MW blades from the third quarter of 2023 at its blade factory in Taranto.

Vestas Blades Factory Szczecin (New)

- **Component:** Blades
- **Location:** Szczecin, Poland
- **Investment:** Not specified
- **Year Announced:** 2024
- **Commissioning Year:** 2026
- **Status:** Under construction
- **Description:** Vestas is establishing a new blade factory in Szczecin, Poland. The factory is planned to produce blades for Vestas' flagship offshore wind turbine, the V236-15.0 MW, and is expected to start operations in 2026, creating more than 1,000 direct jobs.

Siemens Gamesa Aalborg expansion (Expansion)

- **Component:** Blades
- **Location:** Aalborg, Denmark
- **Investment:** Not specified
- **Year Announced:** 2024
- **Commissioning Year:** 2026 *est.*
- **Status:** Under construction
- **Description:** Siemens Gamesa is expanding its blade manufacturing facility in Aalborg to increase production capacity.

TOWERS

Windar Renovables XXL offshore tower factory (New)

- **Component:** Towers
- **Location:** Szczecin, Poland
- **Investment:** €100m
- **Year Announced:** 2024
- **Commissioning Year:** 2026
- **Status:** Under construction
- **Description:** Windar Renovables has signed a concession agreement with the Port Authority of Szczecin for a planned XXL offshore tower factory in Poland. The factory will produce towers designed for turbines of up to 20MW and is expected to create 450 direct jobs.

Baltic Towers new factory (New)

- **Component:** Towers
- **Location:** Gdansk, Poland
- **Investment:** €200m
- **Year Announced:** 2023
- **Commissioning Year:** 2025
- **Status:** Under construction
- **Description:** Baltic Towers, in cooperation with the Spanish company GRI Renewable Industries, S.L., will build a state-of-the-art plant for the production of offshore wind towers for turbines of more than 15 MW. The factory will be capable of producing up to 150 towers per year and is expected to create more than 500 new jobs.

FOUNDATIONS

SeAH monopiles plant (New)

- **Component:** Foundations
- **Location:** Teesside, UK
- **Investment:** €470m
- **Year Announced:** 2022
- **Commissioning Year:** 2026
- **Status:** Under construction
- **Description:** Construction works have begun for SeAH Wind's new £400m offshore wind foundation factory in Teesside. The facility will produce bases for offshore wind turbines and will be based at Redcar's Teesworks industrial zone.

Titan Wind factory in Northern Germany (New)

- **Component:** Foundations
- **Location:** Cuxhaven, Germany
- **Investment:** €300m
- **Year Announced:** 2024
- **Commissioning Year:** 2025
- **Status:** Under construction
- **Description:** Titan Wind plans to build an XXXL monopile production facility in Northern Germany with an annual production capacity of more than 500,000 tonnes and 3,500 tons per foundation. They could produce 100-150 monopiles annually.

Windar Renovables Monopiles Avilés (New)

- **Component:** Foundations
- **Location:** Avilés, Spain
- **Investment:** Not specified
- **Year Announced:** 2024
- **Commissioning Year:** 2027
- **Status:** Under construction
- **Description:** Windar Renovables is developing a new monopile factory in Avilés, Spain. The facility will have a capacity to produce 100-120 monopiles annually, with each monopile weighing up to 3,500 tons and measuring up to 130 meters in length.

Haizea Port of Bilbao (Expansion)

- **Component:** Foundations
- **Location:** Bilbao, Spain
- **Investment:** €150m
- **Year Announced:** 2024
- **Commissioning Year:** 2029
- **Status:** Under construction
- **Description:** Haizea Bilbao is doubling its factory footprint in the Port of Bilbao, expanding the plant by 48,800 square meters to over 100,000 square meters. This expansion will generate 350 new jobs and add a workload of over €700m for the next four years. The full investment is split between different projects – of which €150m is for this facility.

Sif's Rotterdam facility (Expansion)

- **Component:** Foundations
- **Location:** Rotterdam, Netherlands
- **Investment:** €328m
- **Year Announced:** 2023
- **Commissioning Year:** 2024
- **Status:** Completed
- **Description:** Sif Holding N.V. upgraded their monopiles factory in Rotterdam to increase the total combined capacity to 500,000 tonnes a year, enabling the production of 200 XXXL monopile foundations annually.

CABLES

NKT High voltage (New)

- **Component:** Cables
- **Location:** Karlskrona, Sweden
- **Investment:** €750m
- **Year Announced:** 2023
- **Commissioning Year:** 2027
- **Status:** Under construction
- **Description:** NKT is doing a significant expansion of the Karlskrona production site, including the construction of a new factory with a third 200-metre extrusion tower. This will turn the facility into the world's largest high-voltage offshore cable production site.

JDR Cables Northumberland (New)

- **Component:** Cables
- **Location:** Northumberland, UK
- **Investment:** €150m
- **Year Announced:** 2022
- **Commissioning Year:** 2024
- **Status:** Completed
- **Description:** JDR Cable Systems constructed a new state-of-the-art subsea cable manufacturing facility in Cambois, Northumberland. The facility will produce high and extra-high voltage cables (132kV and above) enabling larger offshore turbine operation.

LS Eco Advanced Cables new factory (New)

- **Component:** Cables
- **Location:** Port of Tyne, UK
- **Investment:** €1.1bn
- **Year Announced:** 2024
- **Commissioning Year:** 2027
- **Status:** Pre-Final Investment Decision
- **Description:** LS Eco Advanced Cables is negotiating for a long-term lease for a high voltage direct current (HVDC) factory on the Tyne Renewables Quay site. The factory will help address electricity supply volatility from growing dependence on wind and solar.

Sumimoto Electric cable factory (New)

- **Component:** Cables
- **Location:** Port of Nigg, UK
- **Investment:** €410m
- **Year Announced:** 2024
- **Commissioning Year:** 2026
- **Status:** Under construction
- **Description:** Sumitomo Electric Ltd. is constructing a new subsea cable manufacturing plant at Port of Nigg.

TKF Cable Factory (New):

- **Component:** Cables
- **Location:** Eemshaven, Netherlands
- **Investment:** Not specified
- **Year Announced:** 2024
- **Commissioning Year:** 2024
- **Status:** Under construction
- **Description:** The new factory will produce subsea cables and is situated on a 7-hectare site. It will have the capacity to produce 1,200 kilometers of cables annually.

XLCC Cable Factory in Hunterston (New):

- **Component:** Cables
- **Location:** Hunterston, Scotland, UK
- **Investment:** €72m
- **Year Announced:** 2024
- **Commissioning Year:** 2026 *est.*
- **Status:** Pre-Final Investment Decision
- **Description:** The UK Infrastructure Bank invested £20m initially, with an option for a further £67m. The factory will produce HVDC cables and create around 900 permanent jobs, including over 200 apprenticeships. The amount invested here represents the total already raised by the company.

Hellenic Cables Corinth (Expansion)

- **Component:** Cables
- **Location:** Corinth, Greece
- **Investment:** €80m
- **Year Announced:** 2023
- **Commissioning Year:** 2025
- **Status:** Under construction
- **Description:** Hellenic Cables is upgrading its subsea cable plant in Corinth to double its production capacity as part of an investment programme of around €80m over a two-year period.

Prysmian Pikkala factory expansion (Expansion)

- **Component:** Cables
- **Location:** Pikkala, Finland
- **Investment:** €120m
- **Year Announced:** 2023
- **Commissioning Year:** 2026
- **Status:** Under construction
- **Description:** Prysmian is launching a new investment of around €120m in its factory in Pikkala to increase the production capacity for 525kV HVDC submarine cable systems.

Prysmian Naples factory expansion (Expansion)

- **Component:** Cables
- **Location:** Naples, Italy
- **Investment:** €80m
- **Year Announced:** 2023
- **Commissioning Year:** 2025 *est.*
- **Status:** Under construction
- **Description:** Prysmian announced an investment of more than €80m to expand its Arco Felice centre of excellence for the production of submarine cable in Naples.

Prysmian Gron factory expansion (Expansion)

- **Component:** Cables
- **Location:** Gron, France
- **Investment:** €250m *est.*
- **Year Announced:** 2023
- **Commissioning Year:** 2025 *est.*
- **Status:** Under construction
- **Description:** Prysmian aims to double capacity at its Gron plant in France, which produces high-voltage direct current (HVDC) land cables.

Nexans Halden factory expansion (Expansion)

- **Component:** Cables
- **Location:** Halden, Norway
- **Investment:** Not specified
- **Year Announced:** 2024
- **Commissioning Year:** 2024
- **Status:** Under construction
- **Description:** Nexans has expanded its high voltage subsea cable plant in Halden to support the increased demand globally for electrification and the energy transition.

Nexans Charleroi factory (Expansion)

- **Component:** Cables
- **Location:** Charleroi, Belgium
- **Investment:** €90m
- **Year Announced:** 2024
- **Commissioning Year:** 2026
- **Status:** Under construction
- **Description:** Nexans plans to invest €90m to support the growth of offshore wind in Europe, including the construction of a new 53-metre tower for the insulation of onshore cables.

SUBSTATIONS AND CONVERTERS

Bladt Aalborg facility expansion (Expansion)

- **Component:** Substations
- **Location:** Aalborg, Denmark
- **Investment:** Not specified
- **Year Announced:** 2023
- **Commissioning Year:** 2025 *est.*
- **Status:** Under construction
- **Description:** Bladt Industries has started the construction of its Aalborg facility expansion to cater for offshore wind substation (OSS) projects. The expansion will add 110,000 square meters, with 60,000 square meters set aside for OSS and the remaining 50,000 square meters for storage and assembly space for large parts.

Dragados Offshore Cabezuela expansion (Expansion)

- **Component:** Substations
- **Location:** Bajo de la Cabezuela, Puerto Real, Cádiz, Spain
- **Investment:** €175m
- **Year Announced:** 2024
- **Commissioning Year:** 2026 *est.*
- **Status:** Under construction
- **Description:** Dragados Offshore is expanding its facilities at Bajo de la Cabezuela with an investment of €175m. The expansion will generate 93 additional direct jobs and maintain 481 existing jobs. The project includes an additional 85,000 square meters in the port of La Cabezuela.

Dragados Offshore Algeciras Converters expansion (Expansion)

- **Component:** Substations
- **Location:** Algeciras, Spain
- **Investment:** €16m
- **Year Announced:** 2024
- **Commissioning Year:** 2026 *est.*
- **Status:** Under construction
- **Description:** The Port Authority of Algeciras in Spain has approved the concession to Dragados Offshore for expanding its facilities at Campamento, in San Roque, to produce offshore converter platforms. The concessioned surface area is approximately 400,000 square meters, and includes the so-called Exterior Wharf of 263 meters in length that will allow the loading and unloading of elements.

Smulders Netherlands (New)

- **Component:** Substations
- **Location:** Vlissingen, Germany
- **Investment:** Not specified
- **Year Announced:** 2024
- **Commissioning Year:** 2025 *est.*
- **Status:** Under construction
- **Description:** Smulders, in partnership with the Meyer Group, is establishing two new companies to manage the design and production of offshore wind converter platforms at the Neptun Werft site in Warnemünde on the German Baltic Sea coast. They have acquired a large new yard in Vlissingen, Netherlands, dedicated to the construction of DC platforms and their jackets.

Neptun Smulders Germany (New)

- **Component:** Converters
- **Location:** Rostock, Germany
- **Investment:** Not specified
- **Year Announced:** 2024
- **Commissioning Year:** 2026 *est.*
- **Status:** Under construction
- **Description:** Smulders, in partnership with the Meyer Group, is establishing two new companies to manage the design and production of offshore wind converter platforms at the Neptun Werft site in Warnemünde on the German Baltic Sea coast.

TRANSFORMERS

Hitachi expansion transformer factory (Expansion)

- **Component:** Transformers
- **Location:** Bad Honnef, Germany
- **Investment:** €30m
- **Year Announced:** 2024
- **Commissioning Year:** 2026
- **Status:** Under construction
- **Description:** Hitachi Energy is investing over €30 million to expand and modernize its power transformer facility in Bad Honnef, Germany, adding 100 jobs by 2026. The expansion will increase manufacturing capacity to meet Europe's growing demand for transformers, supporting the region's clean energy transition goals.

Hitachi new transformer factory (New)

- **Component:** Transformers
- **Location:** Vaasa, Finland
- **Investment:** €170m
- **Year Announced:** 2024
- **Commissioning Year:** 2027
- **Status:** Under construction
- **Description:** Hitachi Energy is building a 30,000-square-meter transformer plant in Finland as part of a \$1.5bn investment plan.

Hitachi Energy transformers expansion (Expansion)

- **Component:** Transformers
- **Location:** Cordoba, Spain
- **Investment:** €80m
- **Year Announced:** 2024
- **Commissioning Year:** 2027
- **Status:** Under construction
- **Description:** Hitachi Energy is expanding its transformer operations in Spain, generating up to 75 new jobs.

Siemens Energy Weiz expansion (Expansion)

- **Component:** Transformers
- **Location:** Wollsdorf, Austria
- **Investment:** Not specified
- **Year Announced:** 2024
- **Commissioning Year:** 2026 *est.*
- **Status:** Under construction
- **Description:** Siemens Energy is expanding its production area for wind power transformers in Weiz, Styria, nearly tripling the production area.

GE Lichfield Transformer Facility expansion (Expansion)

- **Component:** Transformers
- **Location:** Lichfield Rd, UK
- **Investment:** Not specified
- **Year Announced:** 2024
- **Commissioning Year:** 2026 *est.*
- **Status:** Under construction
- **Description:** GE Vernova is expanding its Transformer Facility to boost capacity and enhance its ability to produce HVDC converter transformers.

OTHER GRID TECHNOLOGIES

Hitachi Power Electronics Ludvika (Expansion)

- **Component:** Power electronics
- **Location:** Ludvika, Sweden
- **Investment:** Not specified
- **Year Announced:** 2023
- **Commissioning Year:** 2025
- **Status:** Under construction
- **Description:** Hitachi Energy is expanding its production in Ludvika with a 1,400 square meter expansion to increase production of advanced power electronic valves for HVDC transmission and power quality applications.

Hitachi Power Electronics Smedjebacken (New)

- **Component:** Power electronics
- **Location:** Smedjebacken, Sweden
- **Investment:** Not specified
- **Year Announced:** 2023
- **Commissioning Year:** 2024
- **Status:** Under construction
- **Description:** Hitachi Energy is building a new 3,300 square meter factory in Smedjebacken to increase production of advanced power electronic valves for HVDC transmission and power quality applications.

GE HVDC Facility expansion (Expansion)

- **Component:** Converter valves
- **Location:** Redhill, UK
- **Investment:** Not specified
- **Year Announced:** 2024
- **Commissioning Year:** 2026 *est.*
- **Status:** Under construction
- **Description:** GE Vernova is expanding its existing HVDC manufacturing facilities in Stafford, UK, to support the growing demand for High-Voltage Direct Current (HVDC) transmission systems. The expansion will double its HVDC and Flexible AC Transmission Systems (FACTS) valves.