

BOWEH

perspective of Polish market



POLISH WIND
ENERGY ASSOCIATION



The Polish Wind Energy Association (PWEA) is a non-governmental organisation established in 1999.

PWEA is the largest sector organisation in Poland.

Mission: supporting and promoting the development of wind energy, creating advantageous conditions for investment in wind energy in Poland and to increase the use of wind energy as a clean source of electricity.

Member of Wind Europe.



Increase the Capacity of Wind Energy

in according to the Polish Energy Policy until 2040

Capacity of **ONSHORE** wind farms:

9,6 GW in 2030 and 9,76 GW in 2040

Capacity of **OFFSHORE** wind farms:

5.9 GW in 2030 and 11 GW in 2040



PEP2040 – updated Polish Energy Policy until 2040

after pre-consultation, still „lies in a drawer”

Renewable Energy Source

2030 **50 GW** **93 TWh**

2040 **88 GW** **124 TWh**

2030 **27 GW** **25 TWh + 1,7 TWh***

2040 **45 GW** **29 TWh + 18 TWh***

2030 **5,9 GW** **22 TWh + 1,7 TWh***

2040 **18 GW** **44 TWh + 29 TWh***

2030 **14 GW** **34 TWh + 3 TWh***

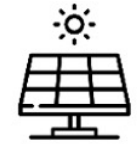
2040 **20 GW** **34 TWh + 23 TWh***

2030 **2,5 GW** **10 TWh**

2040 **3,4 GW** **14 TWh**

2030 **1 GW** **2 TWh**

2040 **1,4 GW** **2,5 TWh**



Black coal power

2030 **13 GW** **41 TWh** **21 mln t**

2040 **9,4 GW** **18 TWh** **10 mln t**

Brown coal power

2030 **6,5 GW** **28 TWh** **35 mln t**

2040 **0,7 GW** **2 TWh** **1,7 mln t**

Natural gas power

2030 **13 GW** **29 TWh** **5,9 mld m³**

2040 **13,1 GW** **36 TWh** **6,8 mld m³**

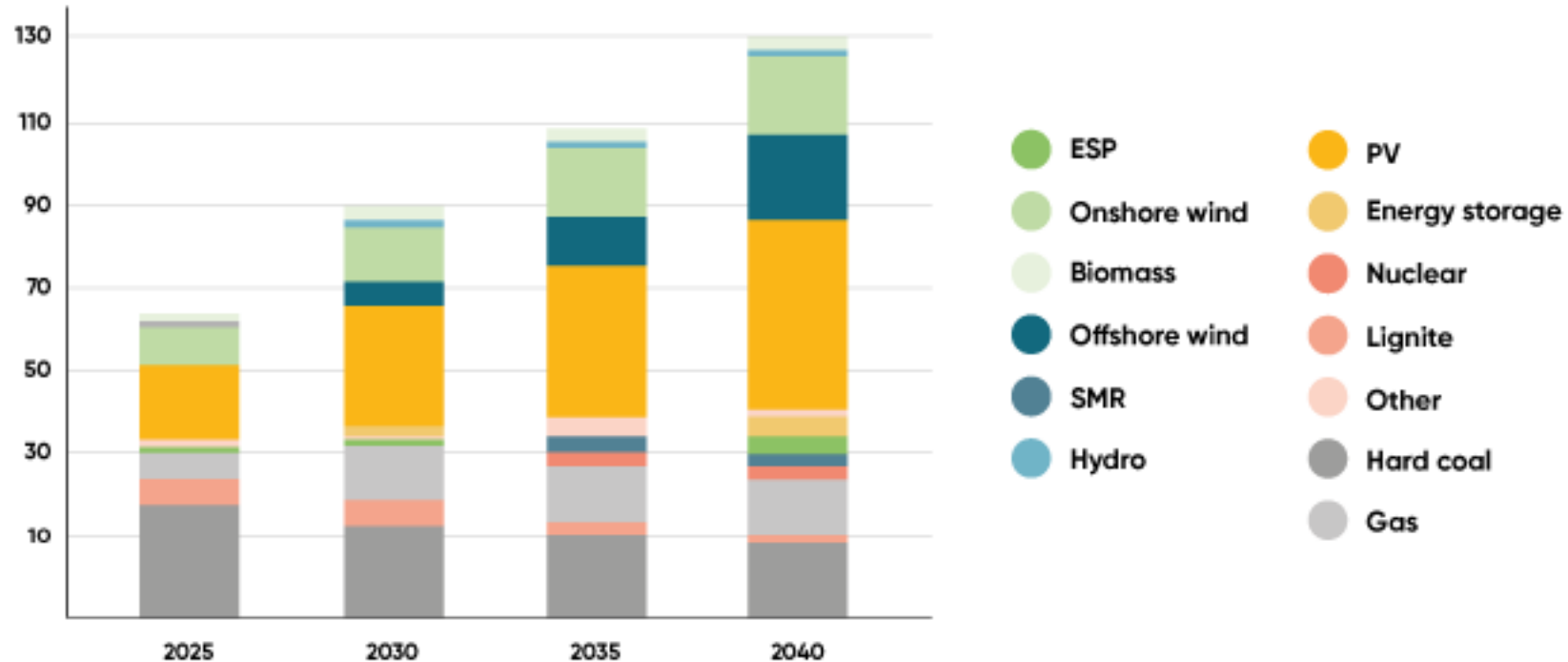
Other (Energy storage etc.)

2030 **5,5 GW** **6,8 TWh**

2040 **11 GW** **8,9 TWh**

*Potential for additional RES production

Planned Polish energy mix according to the Assumptions for the update of Poland's Energy Policy until 2040



OFFSHORE WIND in Poland

I phase
5.9 GW

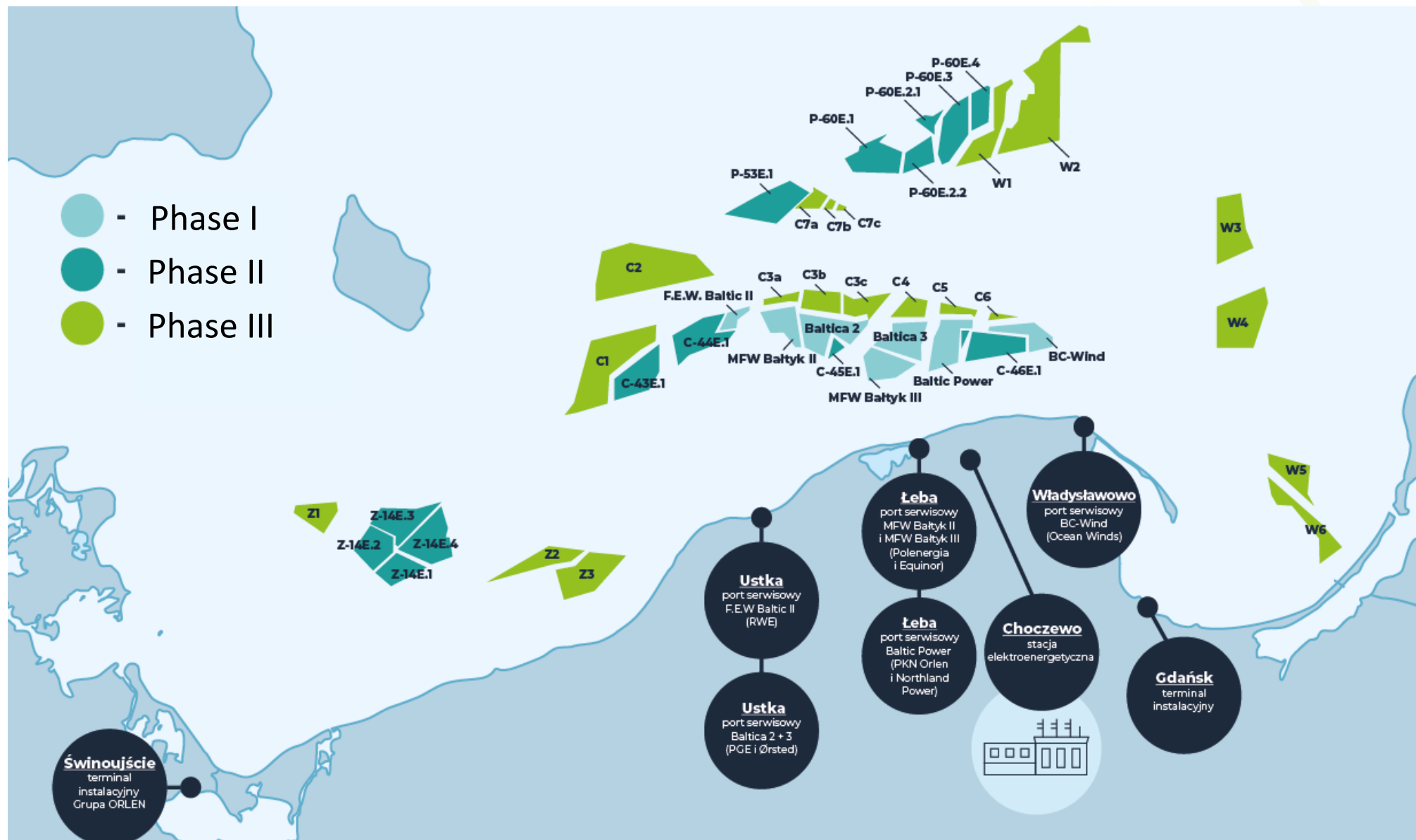
II phase
12 GW

✓ Potential of offshore wind energy in Poland = 33 GW

Under current regulations, offshore-wind farms in Poland can only be located in the exclusive economic zone, within some 2,340 km² of areas that have been assigned the primary function of obtaining renewable energy. According to a PWEA report, these areas have a potential of around 15 GW, while the technical potential of offshore-wind energy in all Polish maritime areas is 33 GW.

- ✓ If the scenario in the report is correct, by 2040 offshore wind energy would enable to contribute to as much as 57% of total electricity demand in Poland by 2040.

OFFSHORE WIND in Poland – areas



Polish Wave I projects

No.	Company	Project	Capacity [MW]	COD	Assumed turbine size [MW]
1	Polenergia / Equinor	Bałtyk II	720	2027	14+
2	Polenergia / Equinor	Bałtyk III	720	2027	14+
3	PGE / Ørsted	Baltica 2	1498	2027	14+
4	PGE / Ørsted	Baltica 3	1045	2026	14+
5	RWE	FEW Baltic II	350	2026	14+
6	PKN Orlen / NPI	Baltic Power	1200	2026	14+
7	Ocean Winds	B&C Wind	400	2027	14+
Total for wave I			5 933		

Source: Report „Offshore wind vessel availability until 2030: Baltic Sea and Polish perspective”, H-Blix, PWEA, 2022

GREEN HYDROGEN in Poland

- Poland is the third-largest producer of grey hydrogen in Europe, but its green-hydrogen production is negligible. The country currently lacks any of the technology necessary for green-hydrogen production (in particular electrolysers), except for those installed for demonstration or research purposes.
- The demand for green and blue hydrogen in Poland is projected to surge from its current level of zero to approximately 450,000-510,000 tonnes by the year 2030. The Polish hydrogen strategy assumes, by 2030, the installation of 2 GW of low-emission capacity for the production of renewable hydrogen and the creation of 5 hydrogen valleys.
- Support system is being under preparation (the ministerial level).

Key challenges

- Simplification of administrative procedures, division of responsibilities, more staff (now it takes 12-14 years to develop offshore farm)
- Grid infrastructure for new projects
- Development of ports
- Precise concept and plan for hydrogen development

Thank you for
your attention

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