



Change is in the wind

Poland's restrictive laws block it from deploying half of the onshore wind that is necessary for Europe's 2030 climate goals.

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About

In the report, we've assessed onshore wind distancing rules in all European Union member states, showing that Poland's current policy is among the most strict.

We've further analysed 7 decarbonisation scenarios for the Polish power sector authored by the European Commission, Bloomberg NEF, McKinsey, InStrat, Forum Energii, Agora Energiewende and the Center for Climate and Energy Analyses. Our research indicates that Poland's planning restrictions block it from deploying half of the onshore wind that is necessary for Europe's 2030 climate goals.

Highlights

99.7%

99.7% of Polish land is excluded from wind investments due to the 10H distancing rule

10 GW

Due to planning restrictions, the maximum available onshore wind capacity is limited to 10 GW

2x

To achieve the EU's climate targets, the capacity needs to be twice what is possible under current policy

Executive Summary

Polish wind restrictions jeopardise EU climate goals and energy security

Poland's restrictive laws block it from deploying half of the onshore wind that is necessary for Europe's 2030 climate goals.

The development of onshore wind energy in Poland has been paralyzed since 2016 due to legal restrictions. An amendment was proposed mid-2021, but it keeps getting delayed for political reasons. Without changing the onshore wind law, Poland will likely compromise 2030 climate targets for the whole EU and disrupt Europe's current efforts to reduce fossil fuel import dependency, which calls for urgent intervention from the European Commission.

01 Poland's onshore wind law is among the most restrictive in Europe

The policy excludes 99.72% of the land from wind investments and limits the total installed capacity at the maximum of around 10 GW. In comparison, Germany plans to add 10 GW of wind capacity every single year. On a national level, most countries assume a 500-1000m minimum distance between wind turbines and houses, in Poland this exceeds 2000m.

02 The current restrictions are incompatible with the EU's 2030 climate targets

Power sector decarbonization scenarios compliant with the EU's 2030 emissions reduction goal show that Poland needs to reach 17-27 GW of onshore wind capacity by 2030. Only half of this is possible with the current restrictions in place.

03 Poland's contribution to the EU's decarbonization is critical

Being one of the top CO2 emitters, with the highest coal share and power sector emissions increasing, Poland can compromise the climate efforts of the whole EU.

To meet the EU's climate targets, it is essential that [Poland's proposed onshore wind law amendment is passed immediately](#). Onshore wind has overwhelming public support, is crucial for climate policy and could buffer the increase in electricity prices that is driven by soaring costs of coal and gas. It could also lower Poland's dependency on coal and gas imports, increasing energy security.

The future of Europe's energy system is now being shaped. We are perfectly capable of meeting climate targets while increasing energy security and reducing fossil fuel imports. This cannot be achieved with policy standing in the way and Poland's onshore wind law needs to be amended immediately.

Pawel Czyzak

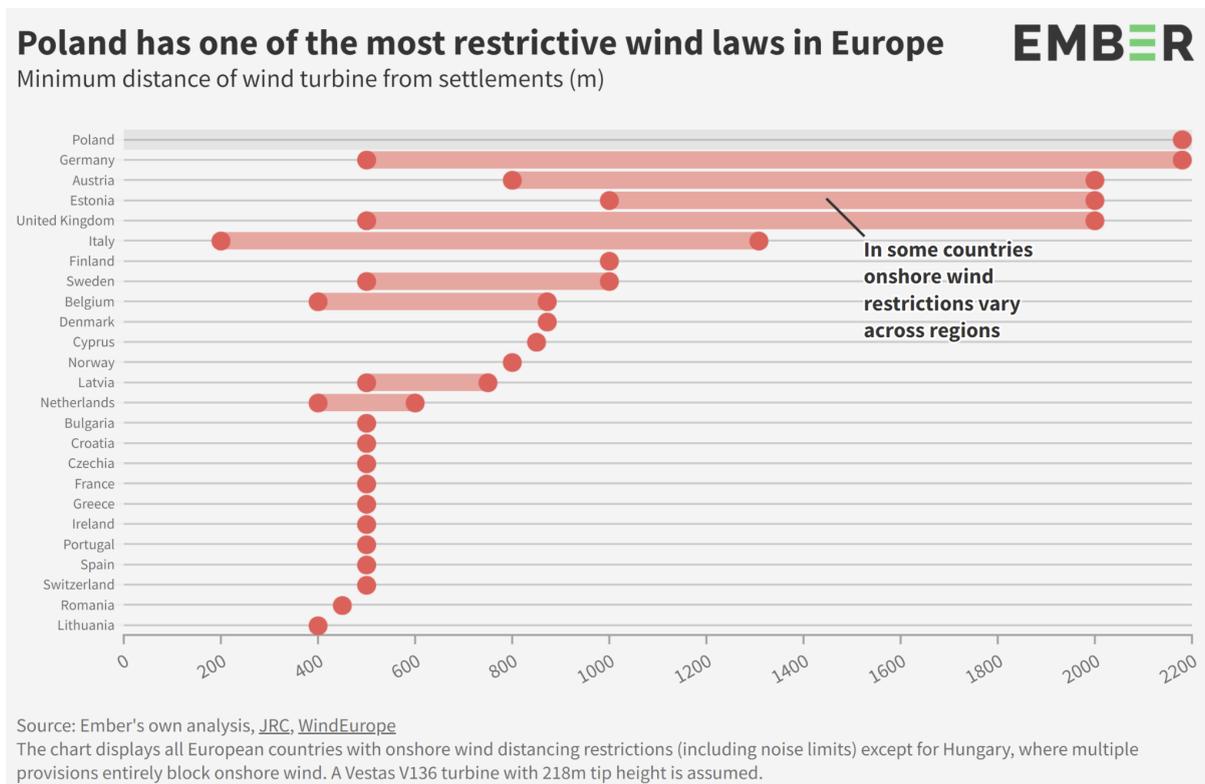
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Poland's onshore wind policy

Poland's onshore wind law is among the most restrictive in Europe

Poland currently has one of the most restrictive onshore wind regulations in Europe, having [introduced a so-called 10H rule in 2016](#). The rule assumes a minimum offset distance between settlements and wind turbines of 10 times the height of the turbine. This means that [99.72% of the country is excluded from building new onshore wind turbines](#) and the available onshore wind capacity is limited to around 10 GW.



Analyses carried out separately by the [European Commission's Joint Research Centre](#) and [WindEurope](#) show that **the severity of wind restrictions in Poland is unprecedented**, comparable only to regional regulations in individual states/counties in Germany, Austria, Estonia or parts of the UK, and a policy introduced in 2016 by Hungary that [effectively](#)

[banned onshore wind through several legal measures](#). On a national level, most countries assume a 500-1000m minimum distance between wind turbines and houses. The 10H rule in Poland also applies to national parks and reserves, and bans repowering of existing turbines.

An amendment to the 10H rule is being discussed and [a project entered public consultations mid-2021](#). The amendment proposes that municipalities could decrease the setback distance to 500m through a spatial planning process. [This could increase the land availability 25-fold, increasing the potential to over 40 GW](#). However, **several months after the public consultations, the amendment still hasn't reached the parliament.**

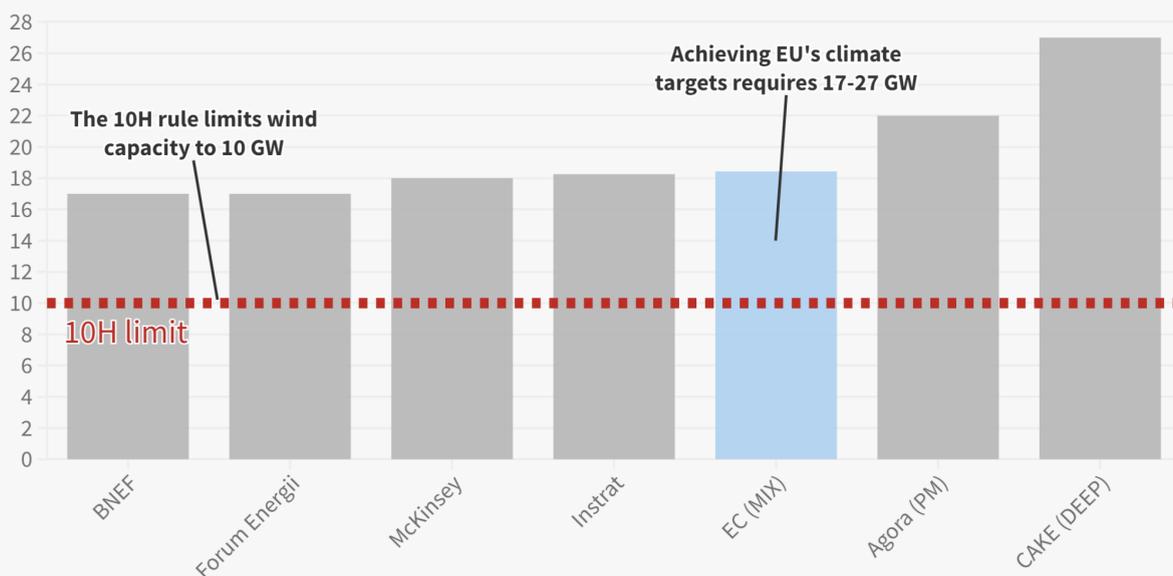
Current onshore wind policy is not compatible with EU climate targets

Poland is the second largest power sector CO2 emitter in the EU (after Germany), with the [second highest emissions intensity](#) (after Estonia) and a [coal share in power generation still above 70%](#). What's more, in recent years Poland's [power sector emissions have not been declining, but rising](#). The government is actively hampering the development of renewable energy - Poland's renewable electricity target for 2030 is just 32%, almost two times lower than the EU-27 average (59%). Being a top CO2 emitter, Poland's failure to replace coal with renewables can compromise the climate goals of the whole EU.

Poland's 10H onshore wind rule is not compatible with the EU's 2030 climate targets



Onshore wind installed capacity in 2030 in various decarbonization pathways (GW)



Source: Ember's analysis of decarbonization pathways by Forum Energii, Bloomberg NEF, McKinsey, Instrat, the European Commission, Agora Energiewende, Centre for Climate and Energy Analyses.

To assess the importance of onshore wind energy in reaching climate targets, Ember analysed 7 recent decarbonization pathways for Poland compliant with the EU's emissions reduction goal of 55% by 2030 compared to 1990. According to the European Commission, to achieve that target for the whole economy, the EU needs to reduce power sector emissions [by 69-76% between 2015 and 2030](#). In all the assessed scenarios, Poland's contribution to this goal is lower than the EU average. Some of the scenarios even aim for the previous EU goal of achieving a 40% greenhouse gas emissions reduction (GHG40%) or assume a purely economic objective (Least-cost optimization). Still, all of the analysed forecasts agree that the onshore wind capacity in Poland needs to increase to at least 17 GW in 2030, with the more ambitious pathways aiming for 22-27 GW. This is **twice what is possible with the 10H rule in place**. It is also two times more than what the [government proposed in the NECP](#) - 9.6 GW of onshore wind in 2030.

Comparing decarbonization pathways for Poland's power sector

Onshore wind ambition in scenarios with different objectives

Country	Objective	Power sector emissions reduction in 2030 compared to 2015 (%)	Share of renewables in electricity generation in 2030 (%)	Onshore wind capacity in 2030 (GW)
Agora Energiewende (2021) - GHG55% Policy Measures	GHG55%	N/A	65.0%	22
European Commission (2021) - MIX	GHG55%	52.1% (including heat)	44.4%	18.4
Instrat (2021)	GHG55%	65.50%	71.0%	18.3
Bloomberg NEF (2020)	Least-cost	40% (compared to 2018)	49.0%	17
Forum Energii (2020)	GHG55%	49%	53.7%	17
McKinsey & Company (2020)	GHG40%	25% (compared to 2017, including heat)	36.9%	18
Center for Climate and Energy Analyses (2019) - DEEP	GHG40%	56% (whole-EU)	39.8%	27
Poland's National Energy and Climate Plan (2019) - Annex 2	GHG40%	25.10%	32.0%	9.6

Source: Ember's analysis of decarbonization pathways by Forum Energii, Bloomberg NEF, McKinsey, Instrat, the European Commission, Agora Energiewende, Centre for Climate and Energy Analyses.

Conclusion

Poland's wind restrictions need to be lifted immediately

Poland's restrictive onshore wind law limits the deployment of new wind projects to a value that is not compatible with EU's climate targets.

An update to Poland's problematic onshore wind law is already on the table, yet the government is delaying the amendment [despite huge public support](#). Being the cheapest energy source, onshore wind could also help lower the extremely high coal-and-gas-driven electricity prices, currently wreaking havoc in the country's economy.

Most importantly, **Poland's restrictive onshore wind law limits the deployment of new wind projects to a value that is not compatible with EU's climate targets**. This can have catastrophic consequences in a country that is one of Europe's top CO2 emitters. With the success of the European Green Deal and Europe's energy security at stake, the provision of state aid for Poland's coal mining and power sectors should be conditional on a swift amendment to the onshore wind law.

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