

Small wind turbines—a glimmer of hope for Poland's wind energy sector?

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A new Polish law imposing rules for the installation of wind turbines is likely to limit the development of renewables in the country, which continues to focus on its main energy source, coal. However, small wind turbines, which fall outside the scope of the recent measures, could represent a loophole for the wind energy sector

In 2016, the Polish parliament, where the conservative Law and Justice party has an outright majority, voted one of the most severe anti-wind [energy](#) bills in Europe. The new law requires companies to locate turbines at least 10 times the distance of their total height (measured from the base to the highest point of the rotor) from the nearest housing and "valuable natural areas," such as Natura 2000 and national parks.

"This rule is arbitrary and absurd," says Wojciech Cetnarski, president of the Polish Association of Wind Energy. "It has effectively hindered the development of [wind energy](#) in Poland. Meeting the EU goals has become unrealistic."

Renewable energy sources accounted for just 11.45 percent of the energy produced in Poland in 2015, while its national target is to increase this figure to 15 percent by 2020. "It is not surprising the law was informally nicknamed the anti-windmill bill. It has also meant chaos in the property tax system," Mr. Cetnarski points out, as an extra financial burden for the owners of the already existing turbines.

"Nothing good comes from this regulation," he concludes.

However, the law does have a loophole. The regulation explicitly excludes "micro installations" of power under 40 kW from its scope, such as the [small wind turbines](#) installed on the roofs of buildings.

Since the energy sector is moving from a centralised energy system to a distributed one, small [wind turbines](#) are expected to play an increasingly important role in the coming years. Their importance was recognised by the European Union, which is supporting a project aiming to develop innovative solutions to make smaller-sized wind turbines more competitive, and to facilitate their deployment into urban and peri-urban areas. The so-called SWIP project, aspires to reinvigorate the small wind turbines sector across Europe.

The innovative turbines will be tested in three demo sites, two of them in Poland (Kokoszki and Choczewo) and one in Spain (Zaragoza). While the project is at odds with the new Polish government's policies, its future is not threatened.

"The power of the most powerful wind turbine in Kokoszki is less than 20 kW," explains Andrzej Szajner from the Baltic Energy Conservation Agency, member of the consortium. As a consequence, our installations will not be affected in any way by the new regulation."

"There are other legal obstacles such as the status of installations on masts, which require planning permission, or regulations on the maximum height of roof-mounted turbines," he clarifies. There is still much room for an improved legal framework.

While both Polish demo sites are located in the windy region of Pomerania near the coast, they present two different approaches towards small wind turbines.

Kokoszki is an industrial district in the city of Gdansk, the largest Polish

maritime port. Its installation, larger than the others, is connected to the grid supplying energy to the local factories. The turbine is located on a site owned by a private construction company - Przedsiębiorstwo Budowlane Kokoszki, which agreed to collaborate on this original project.

The Choczewo installation, on the other hand, is in a small village 20 km inland. It is mounted on the ground next to the Commune Office and it supplies energy to the buildings in the vicinity. While the Choczewo installation is considerably smaller (1-3 kW) than the Kokoszki one (20-30 kW), its social impact can be significant. Not only is the project supported by the local administration, but the wind turbine will be visible and the local inhabitants will be able to familiarise themselves with this technology.

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