



Rethinking Energy – Hilchenbach Citizen's Wind Farm and Wind Trail

# Innovation out of the woods

## Award-Winning Project

Hilchenbach Citizen's Wind Farm  
and Wind Trail

To transform the energy system, we need extraordinary ideas – like building a wind farm in the forest. This is exactly what happened at Hilchenbach in the Siegerland region. The only windy locations near Hilchenbach are on wooded hills. Thanks to the wind farm, operated and financed by the citizens, the town now saves around 21,000 tonnes of CO<sub>2</sub> per year. A “Wind Trail” also informs visiting hikers about the advantages of using wind energy.

**21,000** t of CO<sub>2</sub>  
are saved every year.

Around **300** local people  
benefit from rental income  
and wind farm profits.

**10** MW  
is the total capacity of  
the wind farm.

**5** wind turbines  
have been erected at the  
Hilchenbach wind farm.



## A citizens' wind farm in the middle of the forest

Anyone who takes a look around Hilchenbach will see trees and forest – just as you would expect in the Rothaar Mountains. But somehow, somebody came up with the unusual idea of building a wind farm there. Planning for one of the first forest wind farms in NRW started back in 2002.

Together, the town of Hilchenbach and an operating company run by its residents secured the support of locals and the planning authorities. There was no legal provision for wind power in the forest between 2005 and 2011, but all of the participants backed their idea 100 percent and remained steadfast. With great success.

All approvals were obtained and the project was put into action. Since 2008, the wind farm has been connected to the grid – and has benefited both climate protection and the residents. Furthermore, the town and the operating company set up the Hilchenbach “WindWanderWeg”, or Wind Trail, which features display boards that provide walkers with information about wind energy.



"Just as the forests in the Siegerland have been managed in common for centuries, our wind is being used by the community at the citizens' wind farm. The wind over Hilchenbach belongs to the people of Hilchenbach."

Günter Pulte,  
managing director, RothaarWind GmbH & Co. KG

## Mindful of people and nature

"From the very beginning, we placed great importance on getting local residents closely involved in the wind farm project – in order to allay any concerns and to convince people to support our idea for clean wind energy," says Günter Pulte, Managing Director of the operating company, RothaarWind GmbH & Co. KG, which was set up specifically for this wind farm. This included arranging for private individuals to visit a wind turbine in a neighbouring municipality. Even during the construction work, active engagement with residents, interested parties and decision-makers continued and they were kept informed about the advantages and disadvantages. This also generated support for the project among the locals.

Particular consideration was given to the forest, which is close to the heart of each of Hilchenbach's residents. Special assembly processes allowed the rotors of the five wind turbines to be installed using the minimum amount of space. Because of this, only 3.7 acres of forest had to be cleared. Ordinary wind farms require twice as much space. To offset this, more than twelve acres of ecologically beneficial mixed beech forest were planted.

## Citizens share in the profits

It was clear to the town council very early on that it should be the residents of Hilchenbach who would profit from the town's windy spots, and not outsiders. It therefore supported plans for the citizens' wind farm and the founding of RothaarWind GmbH & Co KG. Since then, the citizens have shared directly in the profits through the local operating company. Today, 89 citizens from Hilchenbach and the surrounding region hold shares in the wind farm. Their profits depend on the wind yields.

The wind farm also benefits the forest owners – two forest co-operatives run by around 200 Hilchenbach families. They collect about 75,000 euros every year on the lease for the wind farm site, which is also financed by the wind yields. Local hotels and restaurants benefit too. Ultimately, the wind farm is a plus for everyone in Hilchenbach because clean wind power saves around 21,000 tonnes of CO<sub>2</sub> every year.





## A model and guide for the use of wind energy

Because of its special location in the forest and the close involvement of the Hilchenbach residents, the wind farm in the Rothaar Mountains is a special attraction for interested citizens, municipalities and companies. So far, almost 400 groups of visitors have toured the wind farm. Many of them came to find out about the technical peculiarities of the steep, wooded site and the way the project has developed as a collaboration between residents and municipal authorities, planners and operators.

The Hilchenbach Wind Trail is an additional feature, jointly set up by the town and RothaarWind GmbH. Along the trail's 4.7-kilometre loop, day trippers can discover and experience first-hand what an environmentally friendly and carbon-neutral energy supply of the future might look like – and they don't even need a guide. Various information boards show how wind is being used efficiently and profitably in Hilchenbach with state-of-the-art technology – to the benefit of the region and the environment.

## Fresh wind for the “Energiewende”

Through their commitment, the town of Hilchenbach, its residents and the operating company RothaarWind GmbH & Co. KG have shown how extraordinary ideas can drive the transformation of the energy system forward. Not only does the wind farm actively contribute to climate protection and the prevention of CO<sub>2</sub> emissions by producing clean energy, through the organisational and financial involvement of local residents, the project also promotes acceptance of renewable energies and the transformation of the energy system. Hilchenbach is also open to those who are interested in the technical

aspects of wind energy. Thanks to the Hilchenbach Wind Trail and the fact that the wind farm is open to visitors, Hilchenbach has made wind power technology accessible to the wider public. Because of this, the wind turbines – which can be seen from far and wide – have become symbolic of the entire region and the whole of NRW. Hilchenbach Citizen's Wind Farm and Wind Trail are prime examples of how wind energy projects can be implemented in forested areas and how citizens can make an active contribution to shaping the transformation of the energy system – even if the conditions look tough.



“The biggest difference that the citizens' wind farm has made to us is in our external image. Many communities in the region and beyond now look to Hilchenbach to see what they can learn from us in terms of wind energy planning.”

Holger Menzel,  
Mayor of Hilchenbach

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On behalf of the state government, KlimaExpo.NRW presents North Rhine-Westphalia's technological, economic and scientific potential for climate protection and adaptation to the impacts of climate change. The initiative is both a showcase and a laboratory of ideas for the state of NRW. Every year, KlimaExpo.NRW presents awards to three projects in four thematic fields, which illustrate climate protection as an engine for progress particularly well.



#### Rethinking Energy

New ideas are constantly emerging from business, research, municipalities and civil society on how we can fundamentally change our energy systems to be climate-friendly – and how the transformation of the energy system can succeed.



#### Saving Resources

NRW aims to lower resource consumption and reduce emissions – through new materials, innovative technologies, greater productivity and the promotion of sustainable consumption patterns.



#### Enhancing Communities

Metropolitan regions shaped by industry, urban districts and rural areas make NRW the ideal showplace for climate-friendly redevelopment of urban infrastructure, reorganising the relationships between cities and rural areas and implementing measures for adapting to climate change.



#### Shaping Mobility

Passenger and freight transport should be efficient and climate-friendly. NRW is addressing this challenge with the development of alternative drives and fuels, and by testing and establishing sustainable mobility concepts.