

# A Successful Community Wind Project: The Wiemersdorf Wind Farm, Germany



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## Highlights

- Over 25 years of experience with wind-power citizen participation models
- Key success factors were project leaders' determination, commitment and entrepreneurial mindset
- Largest sum investments were made by limited partners located outside of the municipality

## Background information

Wiemersdorf is a municipality located in the district of Segeberg, in Schleswig-Holstein, Germany and is comprised of approximately 1650 residents. Wind farms have a long tradition in Northern Germany, where the first wind turbines were installed in the late 1980s. For over 20 years, the wind sector has been supported by a stable policy environment, with favorable regulations for grid connection and feed-in-tariffs which has provided a gateway for a maturing community wind energy sector. Yet, in 2014 the revision of the EUs State Aid fixed guidelines for energy resulted in the removal of feed-in tariffs, instead favoring auctions as a way to support renewables. This has not only resulted in a major reduction in the number of new registered community energy initiatives, but has halted the number of community-driven projects receiving support.

Currently there are no renewable energy incentives such as feed-in-tariffs, investment grants, or tax deductions available for community wind projects. The state court has also ruled that the regions planning strategy was not legally binding and as a result the state of Schleswig- Holstein has suspended wind turbine construction for the past two years. Municipalities hardly have a say in the planning (state government) of wind turbines, resulting in a steady decline in newly founded community wind farms.

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### Brief description of what was done

Windpark Wiemersdorf GmbH & Co. KG was initiated in 1995 and then founded in 1997 by 12 wind pioneers from the municipality of Wiemersdorf. It all started when the residents were contacted by a project planning company who indicated that certain areas of land within the municipality had been allocated by the Schleswig Holstein government for the production of wind energy.

Shortly after, several members of the Wiemersdorf community discussed the possibility of founding a citizen wind park. They were advised by a member of the Chamber of Agriculture to visit and learn from other wind farm pioneers in the region and beyond; such as those in Denmark. Personal contacts with citizen wind farm projects in the neighboring region of Nordfriesland also provided valuable insights into the functions and activities of citizen wind parks.

Regardless of these lessons learned, the 12 pioneers still lacked knowledge regarding wind location planning, taxation and other technical expertise. However, once they realized that they could purchase know-how from specialist providers, they had enough confidence to push the project forward. Confident in the projects technical and economic viability, the 12 pioneers offered their private land for leasing, with all 12 landowners owning approximately the same size of land.

In 2001, a total of 45 limited partners from the region decided to join and invest in six Enercon E-70 wind turbines; each with an output of 1.8 MW. Three years later, the community wind farm expanded and added an additional three wind turbines from the company Repower, type MD 77, each with a capacity of 1.5 MW.

Building on their success, in 2008, the members started the further installation of seven Nordex N100 wind turbines. Construction commenced in September 2009 and commissioning took place in the second quarter of 2010, with the windfarm now supplying clean electricity to more than 20,000 households. A new company under the legal form GmbH & Co. KG (limited partnerships with a limited liability company as a partner) was founded and an extra 51 limited partners from the region joined in the project. Currently there are over 90 limited partners in the Wiemersdorf GmbH & Co. KG community wind farm.

### Project champions and motivations

The main project champions were three farmers who were chosen from the initial 12 landowners to become managing directors. They shared an entrepreneurial spirit because of their previous work experience.

Key motivations included the production of clean energy and overall project profitability. While clearly stating that the wind turbines in Wiemersdorf symbolize their support for the energy transition - visible far beyond the region.

### Decision making process

Throughout the early few years of the project, all decisions such as the purchasing of the wind turbines, were made by the 12 landowners. After the successful commissioning of the first wind park, three directors were identified from within the group to continue the management, operation and development of the citizen wind park. The three managing directors ensured that their decision making processes were visible and transparent to the local community. By maintaining direct contact with the local community, a collective decision making solution was made possible. Two public information days were organised to address local citizen's questions and uncertainties about the project.

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### Ownership model adopted

The community wind farm adopted the limited partnership business entity model GmbH & Co. KG, where voting rights depend on the proportion of capital invested, not on the traditional "one member, one vote" cooperative principal.

In order to increase local ownership, the three managing directors ensured that investment priority was given to the citizens of Wiemersdorf. Only thereafter, accepting investments from partners in other regions. In the first wind park, participants included the 12 landowners, 42 limited partners from Wiemersdorf and an additional 15 limited partners who came from outside the municipality.

### Financing and economic viability

The original cost of the citizen wind park project was 10 million Deutsche Mark (DM), from which 20% equity was required from the community prior to applying for a bank loan for the remaining amount. A minimal investment of €5,000 was set for all limited partners. It is important to highlight the fact that the largest sums invested come from limited partners located outside of the Wiemersdorf municipality. Many of these actors were already established investors and operators in the wind power sector. Once the 20% equity share was collected, the project leaders were able to apply for a loan at the regional bank for the construction of the wind farm.

Several community representatives were skeptical regarding the profitability of the project and the ability of the three managing directors to implement such an ambitious project. However, the determination of the directors to address citizens' doubts, combined with the support of the municipal Mayor helped bring the project in motion.

The project makes a good profit because total costs were kept low. Also, profits were used to pay back the bank loan. The interest rates attained outperform interest rates found on the standard financial market. Hence, the high investor confidence of limited partners to re-invest.

### Project implementation

Throughout the 20 years of project development, the managing directors gradually accumulated know-how regarding project management and wind power technology; whether it was through the purchasing of expertise knowledge from external partners or their personal interest in citizen wind farms. This motivated one of the initial three managing directors to capitalize on this pool of knowledge and founded two companies. Firstly, engineering company Lüth, which works on project management and development of wind power and photovoltaic projects in the European market. Secondly, West Wind GmbH, which provides technical management services to owners of wind turbines and solar installations. Services include regular plant inspection, continuous remote monitoring, ongoing component inspection, and documentation. The technical management of the Wiemersdorf wind park was also taken over by West Wind GmbH.

### Project benefits

- Local citizens have the opportunity to participate in the energy transition and are pleased about additional sources of income.
- Accumulation of wind power know-how helped create two companies, which resulted in a boost to the local economy.
- The municipality finds it easier to fulfil their tasks through the 28,5% increased tax revenue, in the form of trade and income tax.

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- Preferential interest rates resulted in high investor partner confidence and further re-investments into new community wind projects.
- The communal outdoor swimming pool is partially financed by the wind farms revenues.

### Barriers

- Inadequate storage capacity and technology available, meaning that electricity generated is sold to the grid before being re-purchased.
- Planning regulations and bureaucracy are halting the development of community wind farms.
- Lack of a clear and concise regional energy strategy, where community energy is encouraged and supported as a key player in the energy transition.

### Main lessons learned

- Selecting the right companies and simply purchasing their expertise can help if a project lacks know-how.
- An economic viability calculation is key before project investment.
- Good maintenance and reliable technical support can greatly extend the lifetime of a wind turbine.

### Project champions' recommendations to policy makers

- Offer grants or subsidies for citizen wind power projects.
- Give municipalities a say in the planning (state government) of wind turbines.
- Cut application deadlines and authorization processing by half.
- Offer a financial guarantee of a fixed payment compensation that would be anywhere between €0.06 - €0.07.

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