

## Cooperatives – a local and democratic ownership to wind turbines

One of the characteristics of the Danish wind energy sector is the cooperatives or guilds. Many of the wind turbines erected in the 1980s and early 1990s were and still are owned by local cooperatives/guilds. The first wind turbine guild or cooperative was established in 1980 near Aarhus in Jutland, and it soon proved to be the pioneering model for future development. At that time, the wind turbine 'guilds' from all over the country were often the grass roots activists, working hard to get permission to have their turbines erected and also participating in public debate.

Since then, single-person ownership has superseded the importance of the cooperatives and now utilities and large energy companies play an increasing role in the establishment and ownership of wind turbines in Denmark, especially when it comes to large-scale wind farms. However, cooperative ownership is still an important factor, and new legislation from January 2009 is aimed at stimulating the local engagement and ownership in new wind energy projects. The new Danish act on renewable energy imposes an obligation on all new wind energy projects to offer minimum 20 per cent ownership to local people, eg cooperatives.

### The background for cooperatives

The overall concept of cooperatives can briefly be described as an autonomous association of persons united voluntarily to meet their common economic or social needs through a jointly-owned and democratically-controlled enterprise. A cooperative may also be defined as a business owned and controlled equally by the people who use its services or who work at it. In 1844, local weavers and other artisans in Rochdale, England, set up a society to open their own store selling food items they could not otherwise afford. This is often referred to as the first successful cooperative enterprise, used as a model for modern co-ops.

The first co-op store in Denmark was opened in 1866, and the first cooperative dairy was started in 1882 in Western Jutland. Later followed cooperative slaughterhouses and feedstuff wholesale societies. The foundation of a large number of cooperatives can be considered as one of the most important commercial developments in the history of Denmark.

In the 1970s, many cooperative undertakings disappeared from the villages of Denmark. Some of these are still formally organised as cooperative undertakings, but they have been merged into large units or companies, which are often operating both nationally and internationally. Although the number of cooperative undertakings have fallen, the idea of joining hands, establishing local associations or working groups, is still a widespread phenomenon in Denmark in order to start new businesses or local associations in relation cultural or social activities. On that basis the wind turbine cooperative or guilds were formed.

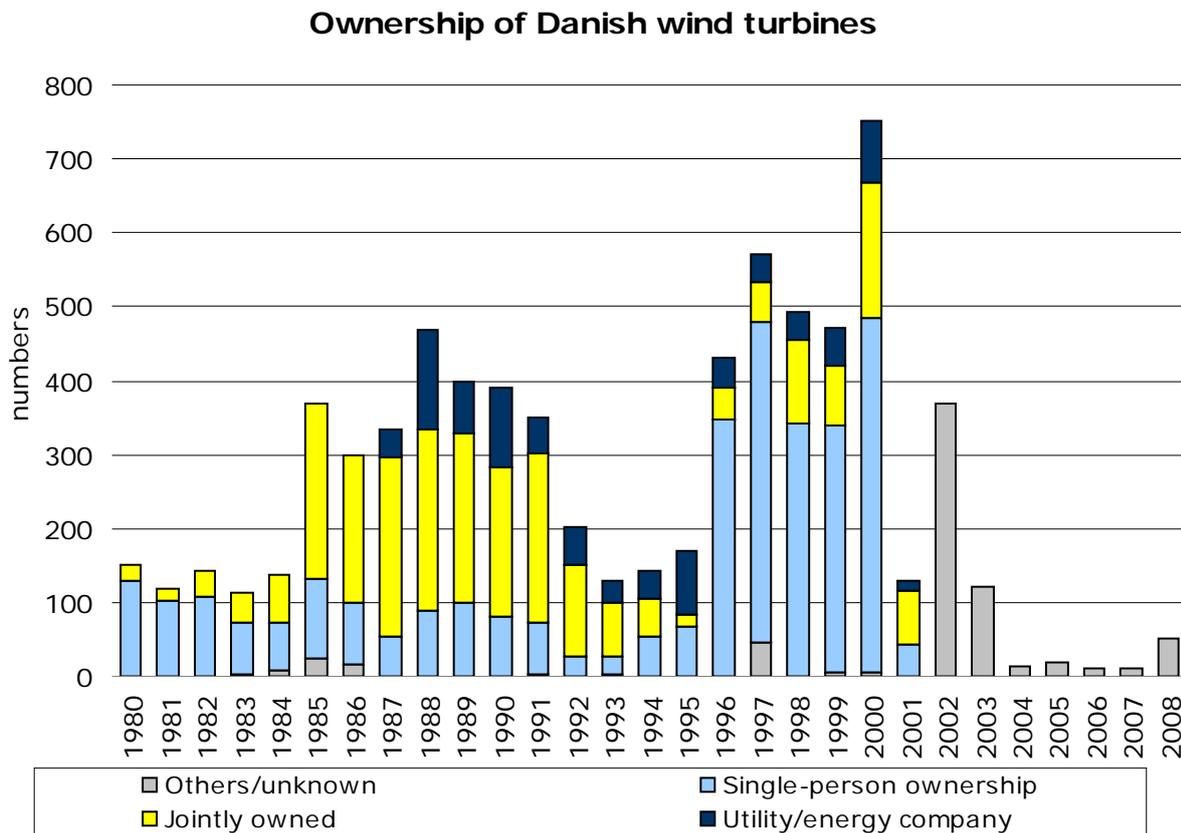
## Cooperatives in practice

Wind turbine cooperatives in Denmark are normally partnerships, which in daily practice function as cooperatives. For legal reasons they are forced to establish formal partnerships due to the fact that in Denmark the interest on the loan for the wind turbine is tax deductible from the private income of the individuals in a partnership, not in a cooperative.

Jointly owned wind turbines in Denmark are organised as partnerships with joint and several liability. In practice, the risk of joint and several liability is minimised in that the partnership is unable to contract debt. This is ensured in the bylaws, which maintain that the partnership cannot contract debt, and that the turbines must be adequately insured.

As a partner you own a part of the wind turbine corresponding to the number of shares you buy. Often one share is calculated corresponding to the yearly production of 1000 kWh from that particular wind turbine.

Private individuals and cooperatives have played an important role in the development of the Danish wind energy sector. On a rough estimate, approx. 15 per cent of the Danish wind turbines today are owned by cooperatives.



As the number of small turbines (eg < 600 kW) will decrease over time, the number of cooperatives might also decrease. On the other hand, the new Danish act on renewable energy with its obligation to offer shares to a possible local ownership could give the cooperatives a revival.

## **Advantages of cooperatives**

Local acceptance of a wind turbine project is necessary. Public resistance against wind turbines in the landscape has been and still is and one of the largest barriers to the development of wind power.

Opinion polls show a wide support in the population in favor of wind power in general. However, uncertainties and lack of information in the planning phase of future wind power projects often give rise to local skepticism.

The experience from a number of wind energy projects in Denmark shows that public involvement in the planning phase and co-ownership increases the acceptance. Adding to this, two private offshore projects shows that cooperative development and ownership is an option also in larger-scale projects. The Middelgrunden Offshore Wind Farm (40 MW) close to Copenhagen was developed through cooperation between the municipality, an energy company and not least a number of private individuals. Middelgrunden is the world's largest cooperatively owned wind farm with more than 8000 members of the cooperative. The Samsø project off the east coast of Jutland (23 MW) was developed by a cooperative with local people on the island of Samsø and the municipality as members.

Strengths of a cooperative:

- Active and committed members
- Dialogue and political contacts with many stakeholders through a widespread network
- Large public support
- Direct contact to local authorities

A possible weakness of a cooperative might be the financially weak starting point but this can be overcome by cooperation with municipalities, utilities or other investors.

Local ownership creates local dialogue and acceptance. Through dialogues with different interest groups a widespread understanding for the chosen location and layout of the farm can be generated. Potential conflicts can be avoided by taking direct contact to local stakeholders at an early stage in the development of the project, eg contact and dialogues with local farmers, fishermen, enterprises or inhabitants in villages close to the site.

With local investment in power generation it is the local people who – at least to some point – take the decision on the planning and implementation of power supply, bringing more responsibility to the local level. Experiences from many wind energy projects in Denmark have shown that often there are more complaints when unknown investors install the wind power than when the local population does.

Local production and engagement in wind energy projects make sustainable development understandable. Cooperatives engaged in the development and building of local wind turbines is a concrete example of how private people can contribute to the development of an environmentally-friendly and sustainable energy production.

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