

## Eurowind Energy as a long-term business patner

Eurowind Energy is a leading developer of wind, solar, PtX and biogas. Our approach to conducting business is proper and decent, and we have a strong record of making long-term partnerships with our suppliers, landowners and employees. We want to play a significant role in the future energy society and the green transition based on a dedicated and focused effort on renewable energy.

We are aiming for a world on 100% renewable energy. We approach the green transition with innovation by creating synergies between the different technologies. We have secured a favourable market position with a strong impact on the energy industry through a well-balanced and growing project development portfolio in Europe and the USA.



#### Why should I have an energy park on my property?

As a landowner, you might be thinking about how to use your property more efficiently: wind and solar power can complement your land. You do not need to invest in the project as a landowner.



# For how long are land areas rented?

The leases or rental agreements are valid as long as the project is planned, under development, in construction and operations. We typically estimate that an energy park has a lifespan of 25-40 years depending on technology and site conditions. When a wind park or solar PV park ceases operation, a new lease of the area can be agreed upon. A wind park provides regular annual rental income in addition to the normal yield from your property, which increases the value of the land throughout the contract period. Renting your land to Eurowind Energy means that we will have a collaboration for many years, which is why it is important for us to have a great relationship with our landowners.

### Can the rented area be used when the wind park is in operation?

You can use your property the same way as you did before. The road network required by the wind park also makes it easier to reach the area all year round, as the roads are kept in good condition due to maintenance of wind turbines is carried out as needed all year round.



#### Which areas are suitable for renewable energy projects?

The different renewable energy projects have specific requirements for their location depending on whether the project is wind, solar, hybrid, PtX or biogas.

We screen land areas in order to find the spots where our modern energy parks have the least possible adverse impact on local interests and valuable environments. In this screening, we consider factors such as natural values, cultural remains, waterways, bird life, bats, aviation and military restrictions and a range of other interests.

To us it is paramount that our relationship with the local community is trusting and close. Consequently, we always carry out impact analysis with respect to landscape and noise.

Another important element is the importance of a good and close collaboration with the local authorities to make renewable energy projects successful.





## **General wind questions:**

#### How tall are the wind turbines?

The development of wind turbines is evolving at a rapid pace. Today, we build wind turbines that are around 250 meters high, but we are seeking permission for building turbines with a height of 300 meters. What distinguishes new turbines from old ones is above all the rotor diameter that has become significantly larger, but the height of the tower has not increased to the same extent. A modern wind turbine of 200 meters has a tower height of approximately 115 meters. Larger wind turbines are of course more visible due to their height, however, they give a calmer visual impression as they rotate slowly.

#### Repowering of wind turbines

Did you know that when a wind turbine gets outdated and too old and not performing, it can undergo repowering?

Repowering is the dismantling of technically obsolete, underperforming and old systems that are replaced by modern technology. The new technology has a much higher nominal output, higher efficiency and a highly improved performance compared to the old systems. It can therefore be necessary to replace old wind turbines as they are underperforming, and the technology is outdated, which affects how much power they can produce. Repowering projects increase the life span of wind parks.



#### **Proven track record**

521 projects in development

2**95 21**1

Solar

11

Biogas

#### Is biodiversity affected by renewable energy projects?

One of the biggest threats to biodiversity is climate change, and here renewable energy projects are an important part of the solution to change our energy system from fossil to clean energy. Other threats are land use, e.g. intensive forestry and traffic. At Eurowind Energy, we aim to take into account the natural surroundings of the landowner's preferred area, while also minimising the impact on the most ecologically valuable zones.

At Eurowind Energy, we wish to contribute actively and decisively to a sustainable and low-carbon future, an effort that will also drive forward social and economic development. Respect for people and the environment is integral to our organisational culture. We strive to reduce our environmental footprint by continually seeking out opportunities for improvement in all areas of our operations, which is why we are working to increase biodiversity in our parks. Through our business, we ensure that millions of tons of CO2 are displaced every year by replacing fossil-fuel generation with renewable energy plants. We are committed to promoting the well-being of our employees, associates, and the communities in which we operate.

"Repowering projects increase the life span of wind parks"







#### Wind power

A wind park is a group of wind turbines that are connected to the electrical grid and are used to generate electricity. Wind parks are typically located in areas with high consistent wind, e.g. near coastlines or on high grounds. The wind turbines in a wind park are usually spaced several hundred meters apart, and the electricity they generate is fed into the grid, where it is used to power homes and businesses. Harnessing wind power as a renewable energy source is a sustainable solution to lessen our reliance on non-renewable energy sources like fossil fuels, thereby reducing emissions of greenhouse gasses and helping in slowing down climate change.

Wind parks can vary in size, with some having just a few turbines and others having hundreds.

Wind power is today one of the most sustainable and costeffective forms of energy. Wind power can be built quickly and offers renewable and cheap electricity compared to other forms of electricity. Our goal at Eurowind Energy is to contribute to the transition while also focusing on the local community.

#### Solar power

A solar plant, also known as a solar power plant or solar farm, is a large-scale facility that generates electricity from the sun's rays using solar panels. A solar plant can be found in a variety of locations, including suburbs, urban and rural areas.

The electricity generated by the solar panels is collected by inverters. The inverter transforms direct current (DC) from the solar panels to alternating current (AC), and a transformer afterwards steps up the voltage to the grid voltage level. Afterwards the power is distributed to homes, businesses, and other users through the electrical grid.

Solar plants are typically made up of thousands of solar panels, which are mounted on structures to optimise their exposure to sunlight. At Eurowind Energy, we mostly use single axis tracker systems instead of fixed structure. The tracker system is more expensive, but it gives a higher yield from the solar plant because the trackers will follow the sun from east to west. The trackers enable our plants to produce early morning and late afternoon.

#### **Hybrid**

A hybrid energy park is a type of facility that combines different types of energy generation and storage technologies in order to produce electricity. Hybrid energy parks can use a variety of different technologies, such as:

- Solar panels
- Wind turbines
- Biomass facilities (such as wood or agricultural waste)
- Hydroelectric power plants
- Gas-fired power plants
- Battery storage systems

The specific mix of technologies used in a hybrid energy park may depend on the local climate, geography, and other factors. Hybrid energy parks can be used to provide electricity to homes, businesses, and other users, and are often designed to optimise the utilisation of the collective grid and to be more environmentally friendly and sustainable than traditional fossil fuel-based power plants. In some cases, hybrid energy parks may also include other types of amenities or facilities, such as



#### **PtX**

Power-to-X, or "PtX," is a term used to describe technologies that convert electricity into other forms of energy or energy carriers.

Access to renewable energy is key to a PtX project, which is why wind and solar projects are the first step in any PtX project at Eurowind Energy.

As we know, renewables produce electricity when the wind is blowing or the sun is shining, meaning that it is fluctuating. Here PtX becomes interesting since it provides a storage possibility for renewable energy, thereby creating flexibility by separating the necessity of consuming electricity at the same time as it is produced. This holds several benefits such as decreasing otherwise curtailed electricity production as well as being able to consume the stored energy when and where it is needed. Sectors that cannot be directly electrified such as shipping industry, also become possible to decarbonise when PtX products are produced from renewables and used on board.

PtX can also be an enabler for wind and solar. As an example, in regions where access to the grid is restricted the implementation of PtX can help realise the potential of the installation of wind and solar power.

#### **Biogas**

Biogas is based on circular and local production and is a natural part of our vision to produce different kinds of energy for different needs and use the synergy between the different kinds of technologies.

Our biogas plant applies straw, and the process secures that nutrients are maintained. This makes it possible to send the nutrients back into the soil as fertiliser. The soil should preserve all nutrients through gasification instead of burning straw and other crops. Burning removes the nutrients completely. It is a circular process, where we can use resources repeatedly instead of destroying and burning them.

Biogas can be converted into hydrogen and e-fuel for industries that cannot be electrified. Furthermore, depending on local needs, it can be processed into different products for industrial production and the construction industry.

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