



**Most of the energy consumed today originates from finite fossil-based sources.** Consuming them causes immense damage to the environment. For many people, the energy produced is unaffordable. This is why the United Nations intends to ensure access to affordable, reliable and modern energy services for all by 2030, and increase the percentage of renewables in the global energy mix. A further aim is to double the global rate of increase in energy efficiency.

## BIOENERGY VILLAGE ASCHA

### ➔ WHAT ARE THE ACTIVITIES ALL ABOUT?

Ascha is already largely self-sufficient in renewable energy. The municipality obtains both its building heat and electricity from renewables. Yet Germany's 'Bioenergy Municipality 2016' – Ascha in Lower Bavaria, with a population of 1,600 – still intends to achieve much more on its path to sustainable energy supply.

### ➔ WHAT HAS BEEN DONE SO FAR?

The first step was an energy consumption analysis, followed by the development of solutions. A kick-off project was the biomass heating plant. The first of its kind in Bavaria, this plant heats around 100 buildings via a local heat network. This was followed amongst other things by solar power systems, solar panels on the roofs of private buildings, a, eco-housing development, a water wheel power plant and solar-powered street lighting.

### ➔ HOW WAS THIS IMPLEMENTED?

Since 1989 the municipality has been making efforts to make its energy supply more sustainable. Numerous citizens are involved in working groups on this issue as volunteers. The municipality intends to replace all the oil heating systems that still exist with environmentally friendly alternatives. One milestone on the path to energy independence was the award of the official title 'Bioenergy Village'.

### ➔ WHAT ARE THE NEXT STEPS?

Ascha town hall plans to use energy storage systems in order to become self-reliant. By doing so it intends to set a good example and encourage citizens to do likewise. Furthermore, every year the municipality will make subsidies of up to 70,000 euros available for heating pumps, electric scooters, projects or a competition to save electricity.



**Ascha** ➔ Bavaria



Population:  
**1,600**



Mayor:  
**Wolfgang Zirngibl**





## THE LONG ROAD TO AUTARKY

In 1992 the United Nations Conference on Environment and Development (UNCED) took place in Rio. There, delegates from 178 countries met to discuss environmental and development issues for the 21st century. The key output of the conference was the so-called Agenda 21. This plan of action also called on municipalities to consult their citizens and adopt a Local Agenda 21. Under the motto 'Think global – Act local' many municipalities responded to this call. At that point in time Ascha had already been pursuing a local energy agenda for several years. This also closely matches UN SDG 7: 'Ensure access to affordable, reliable, sustainable and modern energy for all.'

Ascha's resolute energy path is strewn with awards. In the year 2000 the municipality was awarded the title of 'Environmentally Conscious Municipality' by the Bavarian State Government. In 2016 it was declared the 'Bioenergy Municipality' by Germany's Federal Minister of Food and Agriculture. Today Ascha already generates more electricity than it consumes, and the municipality generates a large proportion of the heat it requires. However, the village also envisages a path leading to independence from the large energy suppliers and ultimately to sustainability.

### A LANDFILL THAT WAS PREVENTED

It all began in 1989, when there were plans to build what would have been Bavaria's largest landfill in Ascha. This would have caused huge environmental impacts. 'So we developed alternative solutions', recalls Mayor Wolfgang Zirngibl. Intensive waste separation rather than a large landfill – a strategy that the municipality continues to rely on to this day. Some of the citizens' working groups which arose at the time are still active. In 1998 the Forum for the Future of Ascha was founded. This body acts as a steering committee for village renewal and Local Agenda 21 processes as Ascha moves closer towards sustainability and energy autarky. Ascha has already been a 'bioenergy village' with the 'special feature: heating oil-free municipality' for years. Photovoltaic systems on buildings and just outside the village produce more electricity than citizens and companies there consume in the course of the year. Citizens are working on ways to cover their heating requirement where possible using regional sources of energy. Their maxim is: move away from oil, towards wood. This is because in the Bavarian Forest significantly more wood grows that is harvested. The first biomass heating plant in Ascha was too large, which is why today there is a smaller wood heating system



The Bavarian municipality of Ascha is a pioneer of sustainable energy supply. (Photo: Heinz Wraneschitz)

that provides heating chiefly in winter, and two cogeneration units. One of them is connected to the heat network of the Nahwärme Ascha GmbH company, and is fired by wood pellets to cover the heating requirement in summer. At the same time an agricultural biogas plant is in operation. This produces 250 kW of electricity plus heat for several households. Wolfgang Zirngibl believes the following points are important in all projects: 'We keep our citizens on board. But we do not ask whether what we're doing is cost-effective. We just do it.' One example is an electricity saving competition, with subsidies for heating pumps or electric scooters. For this purpose an annual 70,000 euros are earmarked in the municipal budget. All existing street lamps in Ascha are LED-based. All new lamps are to be solar-powered, and 50 of these are already in place. There is also a wooden mill wheel that produces electricity at an old mill site. There is an eco-housing development that meets strict energy and environmental criteria, as well as a housing development connected to a district heating system. Both are well accepted in Ascha. Where do things go from here? Wolfgang Zirngibl believes the municipality has a duty to remain a pioneer in the future. The town hall is one example of this. It is envisaged that the building will achieve full energy autarky using electricity storage facilities – and hopefully encourage others to do likewise. 'We, the municipality, have never made a profit out of this, but what we're concerned about is the environment', explains Mr Zirngibl. One thing we shouldn't forget is that instead of spending money on oil, the money that would have been spent on energy remains in the village. According to Wolfgang Zirngibl's calculations, 'one million euros are then left over every year'. The mayor sums up his experience in a memorable sentence: 'Sustainability is a long path, and you have to keep analysing things along the way.'

### INTERNET ADDRESSES

[www.ascha.de](http://www.ascha.de)  
[www.nachhaltigkeitspreis.de/en/](http://www.nachhaltigkeitspreis.de/en/)