

50-80-90




Baden-Württemberg

MINISTERIUM FÜR UMWELT, KLIMA UND ENERGIEWIRTSCHAFT

Welcome to Baden-Württemberg




Franz Untersteller, the Minister
of the Environment

 We wish to limit climate change. And we are reorienting our energy and climate policy to achieve this aim. In 2011 a decision rooted in political and social consensus was taken in Germany to phase out nuclear power. The last nuclear power plant will be shut down in 2022. Baden-Württemberg is particularly affected by the phase out because in the past nuclear power has supplied around half of the region's energy. A profound energy transition consequently lies ahead. We must gradually produce energy in different forms without compromising security of supply in any way. This is the major challenge facing our policy and one which we aim to meet head on with the climate protection law and integrated energy and climate protection concept. Both will bring about fundamental changes in climate protection and the supply of energy in Baden-Württemberg. We have set three objectives for 2050: 50 per cent less energy use, 80 per cent renewable energy, and 90 per cent less carbon emissions. But these lovely sounding figures will only become reality if everyone works together.


50%

Reduction in Consumption

 Saving energy means much more than simply using less energy. Electricity and heat must also be used more efficiently – that means using energy where it is really needed and ensuring that none of it is wasted. This is essential for sustainable energy supplies. The aim is 50 per cent reduction in consumption by 2050.


80%

Renewable Energies

 The phase out of nuclear power represents a huge step towards achieving sustainable supplies of power. We are going even further and want 80 per cent of the energy used in Baden-Württemberg to come from renewable sources by 2050.

90%

Reduction in Greenhouse Gases

 Greenhouse gases are bad for our climate and are one of the causes of climate change. Our aim is to reduce energy-related greenhouse gas emissions in Baden-Württemberg by 90 per cent by the year 2050. We aim to achieve a reduction of 25 per cent as early as the year 2020.

The Climate Protection Law

Baden-Württemberg is one of the most robust and modern industrial regions in Europe.

However, this also means that Baden-Württemberg emits a large amount of CO₂ every year, contributing to global warming and climate change. This does not apply merely to industry; transportation and private households also contribute to the state's total CO₂ emissions to similar degrees. On average, each individual in the state is responsible for seven tons of CO₂ emissions annually. That is nearly twice the global mean. And it is too much.

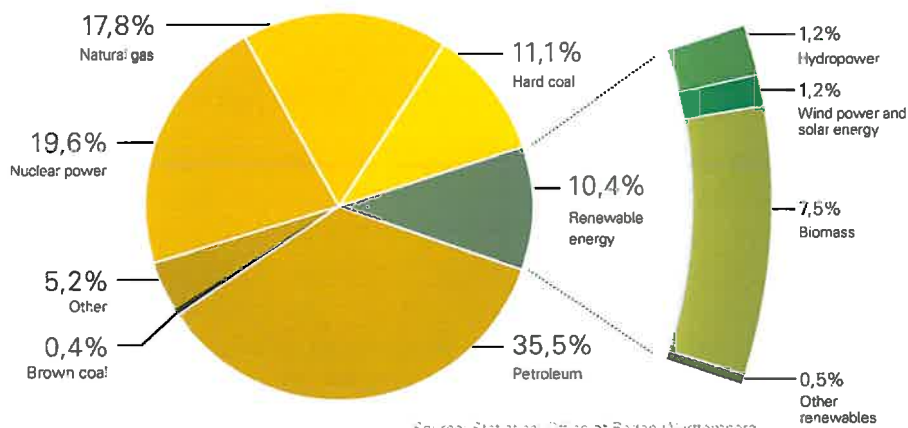
By implementing the climate protection law, the state is facing its responsibility for the climate.

The law establishes that in comparison to the year 1990, greenhouse gas emissions must be reduced by at least one quarter by 2020 and by 90 per cent by 2050. These objectives will not be attained easily, but in light of progressing climate change, they are necessary.

The state is not merely setting goals, however. With the active participation of citizens and organisations, an Integrated Energy and Climate Protection Concept (IEKK) is currently under development. *The concept includes around 100 strategies and measures with which the ambitious climate protection objectives can be achieved.* It thus serves as a guide to practical climate protection in the areas of electricity, heat, transportation, agriculture and forestry, as well as material flows.

Instead of defining individual, concrete measures, the climate protection law formally changes the relative significance of climate protection in Baden-Württemberg. Just as is the case with environmental and species protection, climate protection must now be factored into all political decisions and planning processes. *Thus, climate protection becomes the obligation of all of society.*

Where Does Our Energy Come from Today?

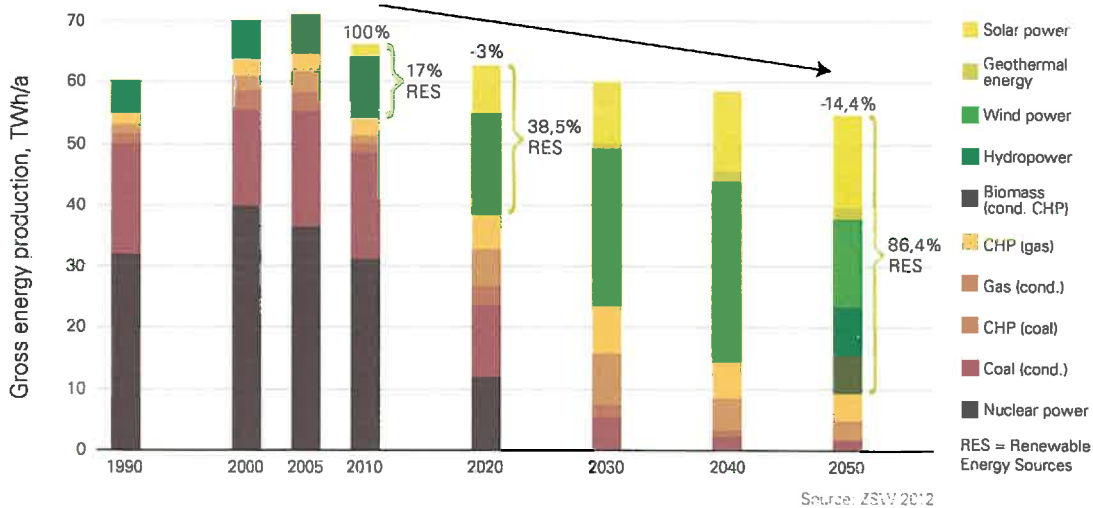
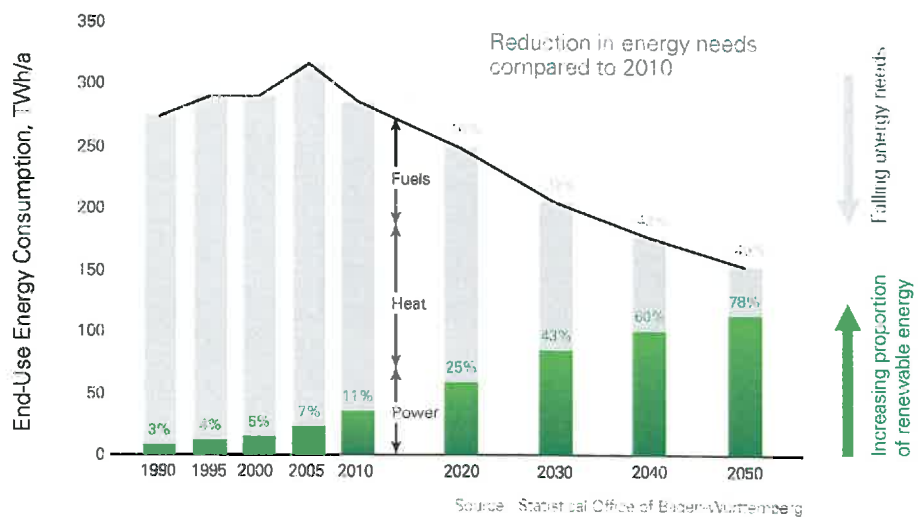


In 2011, primary energy consumption in Baden-Württemberg was 1,434,900 terajoules (approximately 399 terawatt hours), which includes electricity generation as well as energy used for heating and motor fuel. The main sources of energy were petroleum, nuclear power, and natural gas.

Plans and Perspectives: The Expansion of Renewable Energy Sources in Baden-Württemberg

The state government has set itself the goal of making renewable energy its main source of energy in the future. This will fundamentally change the state's energy infrastructure. Up until now, electricity and heat have been overwhelmingly generated by conventional power plants.

In 2010, end-use energy consumption in Baden-Württemberg was just under 300 terawatt hours per year (TWh/a), already less than in 2005. When looking at all sectors combined, renewable energy resources supplied 11 per cent of total end energy consumption. Our goal is to further reduce energy needs and to meet most of the remaining need with the help of renewable energy by 2050. Current estimates indicate that Baden-Württemberg has set a good course for meeting these objectives.



Wind and solar power will assume the lion's share of electricity generation in 2050; nuclear power will no longer play a role. In 2010, nuclear power made up more than 30 per cent of electricity generated. By 2020 it will be a mere 17 per cent, the same amount obtained from renewable sources today.

No Citizens, No Energy Transition

✎ The energy transition is a mammoth project demanding an extensive reorganisation of our energy supply. The government cannot put this into action on its own. It is dependent on the help of citizens who move the energy transition forward in a decentralised fashion.



“Companies, municipalities, citizens – the energy transition demands that everybody does their part. It is the only way it will work”, says Baden-Württemberg’s Minister of the Environment Franz Untersteller. “The active participation of citizens strengthens acceptance at a local level, involves them in business activities, and provides a broad societal basis for the necessary reorganisation of the energy supply.” Citizens’ energy networks and green energy villages are two opportunities for citizens to participate in the energy transition at local level.

Mauenheim, the first green energy village in Baden-Württemberg.
(Source: Daniel Völpel)

There are over 130 citizens’ energy collectives with more than 25,000 participating citizens in Baden-Württemberg.

There are currently 50 green energy villages in Baden-Württemberg; another 41 are being planned.

In 2012, 35 per cent of renewable energy generation in Germany came from plants owned by individuals.

Climate Protection is an Opportunity for this Business Location

✎ The state wants to prove that a highly industrialised region such as Baden-Württemberg can implement systematic climate protection while also being economically successful. Renewable energy, environmental and climate protection technologies, sustainable mobility and resource-conserving machines and products made in Baden-Württemberg provide businesses in the state with great opportunities in growth markets worldwide. *The ecological modernisation of business not only serves the climate, but also strengthens the business location, creates jobs with a future, and makes tomorrow’s prosperity possible.*