

» Good Climate - Good Life.«

# Climate Protection in Lahr





## Good Climate – Good Life

We have to live and act in a way that ensures future generations will find Lahr and the world worth living in. This concept of sustainability is a particularly important guiding principle to us. Of course, we also implement this with regards to energy and the climate.

We have been active in this regard for several decades. With tremendous support from the Lahr Municipal Council, we have achieved some success. In doing so, we have been pursuing two goals: climate protection and adaptation to man-made climate change.

We systematically plan and implement our diverse urban projects and activities with a view to achieving these goals. An essential technical basis for this is the Integrated Climate Protection Concept Lahr 2012, which was filed by the Municipal Council. It contains the Energy and Climate Policy Model of the City of Lahr. With the measures from the Energy and Climate Work Programme, we have been implementing these guiding principles. We control and evaluate our activities by means of the Quality and Management System of the European Energy Award.

We have been particularly successful in the municipality's remit. However, with around two percent, the Lahr Municipality emits a relatively small share of the total CO<sub>2</sub> emissions in the Lahr district. Our ability to influence industry, the private households and mobility is limited. In these areas, actually the major CO<sub>2</sub> emitters, progress has been slower: around 50 percent is emitted by industry, followed by private households, 28 percent, and the transport sector, 20 percent.

This breakdown clearly underlines the necessity of sustainability and sustainable action for all Lahr stakeholders. Society as a whole is challenged by the need to protect our climate and to adapt to the phenomenon of man-made climate change. We will all have to rethink and reroute – more of the same is an untenable option.

We like being pioneers and role models and need even more committed people and institutions for Lahr. On the following pages you will find examples of successful projects by the City of Lahr and other stakeholders. Use this compilation for inspiration and join in too. Support our climate policy goals to ensure a sustainable future for Lahr.



A handwritten signature in blue ink, which appears to read 'Markus Ibert'.

Markus Ibert, Mayor

## From knowledge to action: Climate protection at a local level

“Think globally – act locally.”

In accordance with this motto, the city of Lahr has been pursuing the simultaneous goals of protecting the climate and sustainably developing the Lahr region since the 1990s. Since then, numerous decisions and resolutions have been made to mitigate climate change at an international, European, and national level. They have strengthened the commitment of the city of Lahr to its goals at a local and regional level in order to ensure that future generations will also find a habitable planet and a city worth living in.

Scientists have been warning us about a climate catastrophe for decades. The impact will be felt particularly strongly in the poor countries of the world, the countries that have themselves contributed very little to climate change. Even so, the first effects of climate change are also clearly noticeable here in Central Europe. One record-breaking summer follows another, cities are becoming hotter and hotter, storms and floods are becoming increasingly more frequent.

Thus, it is especially local authorities that are called upon to make the greatest possible efforts, in cooperation with their citizens, institutions, companies, and churches. **Active climate protection** is necessary from a purely economic point of view in order to reduce the high costs of adapting to the expected changes in our climate. Climate protection also means that we are creating long-term economic perspectives and making sensible investments so that the following generations can also enjoy a good life. Lahr is doing this at all the different levels of administration and politics, and in constant cooperation with its citizens and with other municipalities.

While active climate protection starts with the avoidance of greenhouse gases – that is, by developing strategies and implementing measures to reduce them – we are already being confronted with the consequences of climate change today.

**Adapting to the effects of climate change** is challenging especially for municipalities, and it does not only have consequences with regard to urban planning. In the course of the process of adaptation, Lahr is developing measures both to mitigate the consequences of climate change that are already being felt by its citizens, as well as to prevent future damage.



In the energy and climate policy mission statement that was adopted in 2012, the city of Lahr committed itself to halving its emissions by 2022.



Climate protection was already an important issue in Lahr in the year 1993, when the city joined the **Climate Alliance** and committed itself to reducing CO<sub>2</sub> emissions by ten percent every five years.

Consequently, Lahr had its first **municipal concept for climate protection** developed in 1997/98 and was awarded the title of '**European Energy and Climate Protection Municipality**'.

Success is an incentive for continued commitment: In 2012, the municipal council of Lahr developed and adopted an **integrated concept for climate protection**, which involves private households and the industrial, commercial, trade, and service sectors as well as the sectors of transport, supply, and disposal in addition to the city administration. The **Lahr Climate Protection Council** (renamed Climate Council in 2018) was also involved in this process. It consists of selected representatives of the sectors of industry, commerce, trade, and services, as well as the sectors of transport, supply, and disposal. Furthermore, it includes representatives of environmental and social associations, churches, the Chamber of Industry and Commerce, the Chamber of Crafts, and the housing, construction and credit sectors. Together with these strong partners, we are tackling the challenge of protecting the climate.

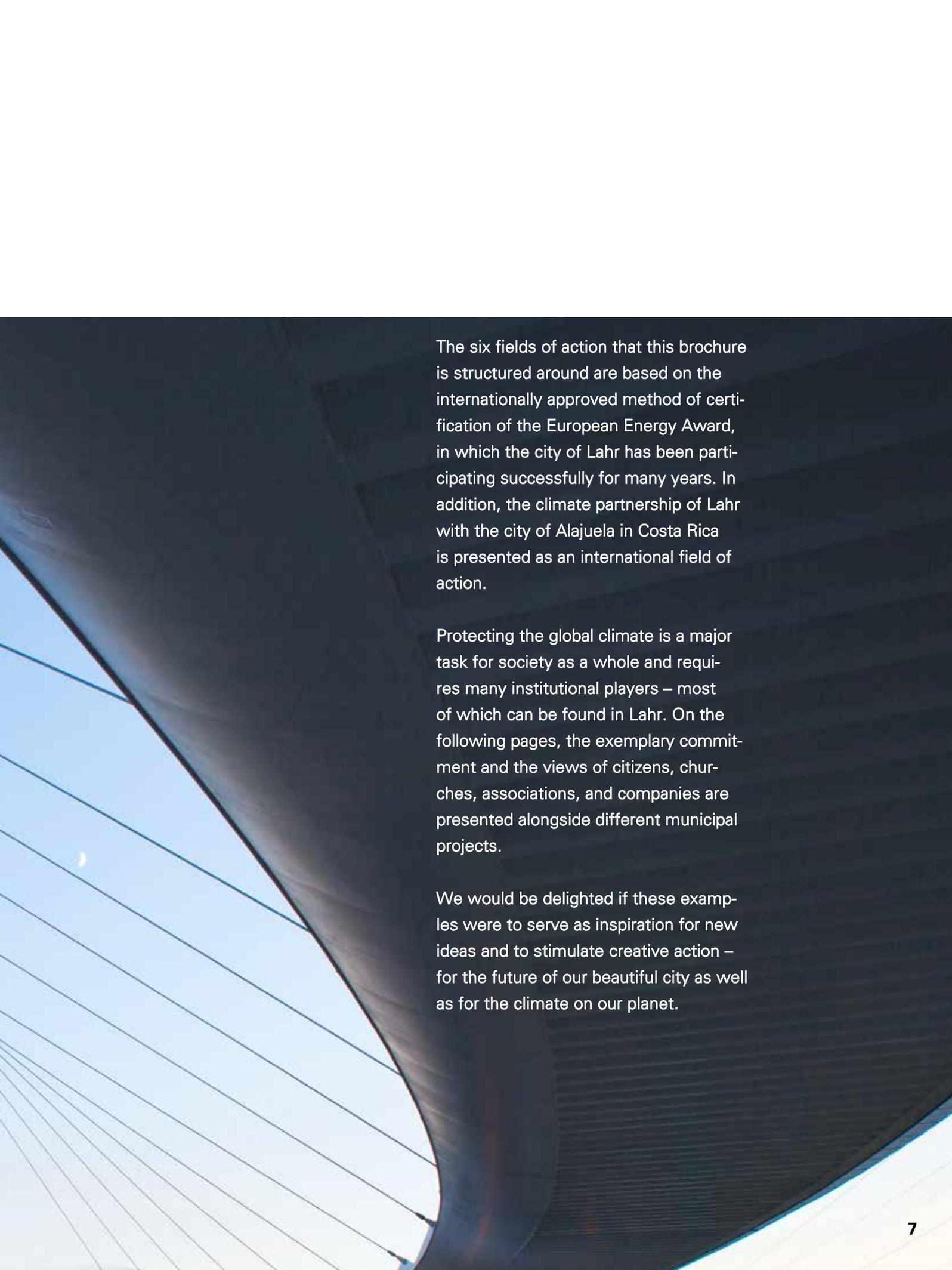
In 2016, Lahr signed the **Resolution of the Association of German Cities and Towns '2030-Agenda for Sustainable Development: Shaping Sustainability at the Municipal Level'**. The objective of the 2030 Agenda is to shape global development in a way that is socially, ecologically, and economically sustainable, and thereby to ensure that future generations also have the chance to live a fulfilled life. The city of Lahr is committed to contributing to the achievement of these goals.

Also in the year 2016, Lahr signed the '**Supporting Declaration on the Climate Protection Pact** between the State of Baden-Württemberg and the municipal state associations'. The Climate Change Pact highlights the importance of local authorities in achieving the country's climate protections goals.

Climate change has already arrived in our region along the Upper Rhine river. In order to know where particularly sensitive areas are located and what effective climate adaptation can look like, the city of Lahr has supported the **Regional Climate Analysis** of the Southern Upper Rhine region. We want to respond actively to climate change.

# Six municipal fields of action for climate protection and climate adaptation





The six fields of action that this brochure is structured around are based on the internationally approved method of certification of the European Energy Award, in which the city of Lahr has been participating successfully for many years. In addition, the climate partnership of Lahr with the city of Alajuela in Costa Rica is presented as an international field of action.

Protecting the global climate is a major task for society as a whole and requires many institutional players – most of which can be found in Lahr. On the following pages, the exemplary commitment and the views of citizens, churches, associations, and companies are presented alongside different municipal projects.

We would be delighted if these examples were to serve as inspiration for new ideas and to stimulate creative action – for the future of our beautiful city as well as for the climate on our planet.

## Our climate needs visions...

### Implementing calls for good planning

In Lahr, climate protection and climate adaptation are taken into account in all planning processes. As a cross-sectional task, they affect many municipal fields of action. The goal is clearly defined by the city's mission statement – cut back on CO<sub>2</sub> emissions as quickly as possible! All of our projects and measures are structured around this goal, in the area of developmental planning as well as in regional planning.

In the **mission statement on energy and climate policy** that was adopted by the municipal council in 2012, the city of Lahr has set itself the ambitious goal of reaching the goals of the Climate Alliance not only by the year 2030, but as early as by 2022. By means of a bundle of thirty-four measures to be implemented by the city administration, the business sector, private households, and the transport industry, CO<sub>2</sub> emissions are to be reduced by 50 percent compared to 1990. We are all doing our bit and contributing our part!

The **Energy and Climate Work Programme 2018-2022** constitutes an update of the 10-year Action Plan of 2012 and includes seventeen additional measures. Climate policy is a dynamic process.

The city of Lahr has developed criteria for a **climate- and environmentally friendly planning of urban land use**, and has formulated **goals for the environment and for the use of energy in urban development projects**. The practical guide **'Klimagerechtes Bauen' (climate-friendly building and construction)** supports real estate owners in their projects, since the urban planning decisions that we are taking today are going to influence the environment and climate for many generations to come.

The city of Lahr aspires to protect its citizens from the consequences of climate change by means of climate adaptation measures. A climate adaptation concept centered upon local effects of climate change is currently being developed. The green space master plan includes plans for shady oases, corridors of fresh air, and biological diversity in the city. Protection against flooding also forms an important part of the city of Lahr's planning activities. A flood hazard map has been drawn up and will serve as a basis for future planning.



Lahr's city park offers shady oases and biological diversity. Thanks to its central location within the city, it also provides air conditioning for the city centre.



Goal-oriented urban planning is achieved by defining policies and developing concepts for their implementation.

As early as 2010, Lahr was awarded the European Energy Award (eea) for the first time. This was preceded by a long-standing process in which all of the city's energy-relevant activities were systematically recorded and reviewed. As a quality management system promoted by the European Union, the eea supports local authorities in identifying their strengths and weaknesses as well as their potential for improvement, and in implementing energy-efficient measures.

Re-certification was achieved in 2014 and another re-certification is currently in preparation.





**New trees planted at the  
"Landesgartenschau"  
(State Garden Show)**



**The "Landesgartenschau" (State Garden Show) commits to climate protection.**

"More than 4,000 trees and shrubs were planted at the State Garden Show. The resulting green areas and open spaces with their ecological and climatic functions have contributed to sustainable urban development. By providing a habitat for animals and plants, mitigating the effects of heat, and reducing air pollution, they provide a valuable contribution to climate protection. The individual exhibits raise visitors' awareness of environmental issues in different ways, and vividly convey a wide range of nature-related topics."

Ulrike Karl, Managing Director of Landesgartenschau Lahr 2018 GmbH





The city forest of Lahr is being managed in accordance with the international PEFC standard. Its goals are to convert coniferous forests into deciduous forests suited to the location, to leave dead wood in the forest, to refrain from clear-cutting, to take

measures to protect the soil, and to rejuvenate the forest naturally. Sustainably managed forests retain their function as natural protectors of water, soil, and climate. They extract CO<sub>2</sub> from the air and bind it in the soil and wood.

Preserving old tree populations and planting new trees in inner-city areas are two aspects of the city's strategy for climate protection and for adaptation to the effects of climate change.



Renaturation projects at the river Schutter and the construction of a large rainwater retention basin near Kuhbach are two examples of regional measures aimed at mitigating the consequences of increasingly heavy rainfall.

## Everybody puts their own house in order...

### Lahr prepares its buildings for the future

Existing buildings have a great potential for saving energy. The city of Lahr focuses on the modernization of buildings, the optimization of green space, and the use of renewable energies. In this way, it actively pursues climate protection through its real estate property. These efforts are paying off because they reduce our energy cost, especially if energy prices rise in the future. The city aims to set an example, to demonstrate what is possible, and to motivate others to also take action. We can only achieve our climate goals together.

The city administration of Lahr took an important step towards achieving climate neutrality for city-owned buildings in 2016, when a **climate protection concept for municipal buildings** was developed. To this end, the forty-five most energy-relevant urban properties were examined, and options as well as time schedules for their renovation were subsequently recommended. Step by step, we are preparing our buildings for the future.

Our renovation schedules ensure **systematic measures of renovation**. The city of Lahr always aims to use energy efficiently and to save it wherever possible, as the examples of two school buildings show.

We want to save energy and to cover the remaining demand using only sustainable sources of energy! Many municipal buildings are equipped with heat-generating systems that are based on renewable energy. Some examples of this include the **solar system** in the outdoor swimming pool 'Terrassenbad', the **pellet heating system** in the Technical Town Hall, and the **district heating system** to which the new gymnasium+ and daycare centre+ are connected. In addition, private and cooperative efforts have enabled the installation of large photovoltaic systems on the roofs of schools, gymnasiums, and administrative buildings leased by the city.

Since 1996, the city's energy management has systematically been monitoring and optimizing the electricity, heat, and water consumption of sixty-five municipal properties. Since 2000, we have saved 15 percent heat, 8 percent electricity, and 21 percent water in spite of more intensive use. For us, sustainability means understanding **energy management** as a central task and always remaining on track.

The staff on site is extremely important for the successful implementation of these measures. By means of **training courses** for facility managers, the city of Lahr directly involves the people who are responsible for energy systems in its efforts.

By leasing municipal roofs for **photovoltaic systems**, the city of Lahr is tapping into its solar power potential. A total of more than 2,000 solar modules are producing energy in an environmentally friendly way. The picture shows the solar power plant – with an energy output of 70 kw<sub>p</sub> – on the roof of Geroldsecker school.



The Schutterlindenberg school's large glass-fronted cafeteria uses solar energy passively. The ventilation system is supplied in winter with geothermal heat that is delivered by geothermal probes reaching to a depth of 100 metres, and in summer with geothermal cooling. The toilet facilities are fed with rainwater that is collected on the flat roof.



Creating additional space and saving energy go hand in hand: By covering the inner courtyard with a roof, additional rooms have been created in the **Max-Planck High School**, enlarging the all-day school and the cafeteria. In spite of this, the school's overall consumption of energy has dropped, as the roofing reduces the ratio of external wall surface to interior space.

The outdoor swimming pool “Terrassenbad” is not only a popular destination for day trips but also a model in terms of its use of sustainable energy. A large solar thermal system on the roof ensures pleasant water temperatures and saves about 150 tonnes of CO<sub>2</sub> a year.



### The residential quarter is benefiting – many times over

“Thanks to the cooperation of Wohnbau Lahr (housing association) with badenova Wärmeplus, E-Werk Mittelbaden, and the city administration, a sustainable residential quarter has been created on Kanadaring. Using biomethane to generate heat considerably improves the CO<sub>2</sub> balance, photovoltaic systems make use of solar energy, and a new cycle path and footpath function as connecting axes and thereby reduce car traffic.”

Klaus Birkner, Technical Director, Wohnbau Lahr Municipality

### Renovation and new sustainable building concepts go hand in hand at Kanadaring.

Residents are benefiting from a new quality of leisure-time in their neighbourhood.





### Groundwater supplies energy

“Unfortunately, the construction site of our new church and the groundwater were found to be affected by contamination. In cooperation with the architects and with us, the city administration of Lahr developed a filter system that suctions and filters groundwater. As a result, water quality has improved significantly over the years. At the same time, our heating system is connected to this system via two groundwater heat pumps. Hence, we only need electricity for the compressors and circulator pumps, and we can heat the nave, foyer, children’s areas, vestry, and toilets (altogether approx. 340 sqm) without using gas, oil, or other fuels.”

Tobias Lerch, parish leader of the New Apostolic Church in Lahr



### Cost-efficient and environmentally friendly

“In 2015, we replaced our old oil heating system with a pellet heating system. The main argument in favour of this was that the running costs of heating would be reduced. We are saving about 600 euros every year. In about ten years, we will have compensated for the higher costs of acquisition of the pellet heating system. In my opinion, the oil price will rise even more in the future, which will further increase our savings – the key argument for us to switch to pellets. And it is also a good contribution to climate protection.”

Stefan Schmidt, home owner

In spite of additional street lamps, energy consumption has dropped by 40 percent since 2001. This is mainly due to the transition to energy-saving **LED technology**. We are saving on electricity consumption, not on lighting.

## Well-supplied with energy...

### For a sustainable future

Many cities have great potential in terms of electricity and heat supply. Lahr has decided to tap into this potential by developing various instruments designed to promote the rapid use of efficiency potentials and to expand renewable energies. Lahr is also creating the right framework conditions for supply and disposal, whether in the form of a new connection to district heating or in the form of an energy-relevant modernization of entire neighbourhoods. The city supports its citizens in the development of **solar energy** and **wind power**, whether they use solar power on their own roof or form part of an energy cooperative. This much is clear: in order to create a sustainable future that is worth living in, we rapidly need to transform our energy supply.

In 2016, Lahr had a **heating and cooling register** compiled as an instrument to plan an efficient supply of energy to the city. This register has enabled the identification of suitable areas for integrated heating and cooling.

Detailed analyses have been carried out and measures recommended for the five most suitable areas (TOP planning areas).

Another way of protecting the climate is to use **waste heat** from the industry in an intelligent manner.

The simultaneous generation of electricity and heat by means of **combined heat and power** (CHP) provides an extremely efficient and environmentally-friendly supply of energy. The city of Lahr has therefore explored its CHP potential and is supporting the **planning of local and district heating networks** in the five TOP planning areas.

One example is the connection of the Kaiser-/Lotzbeckstraße neighbourhoods and Kanadaring road to the district heating network, which is supplied by a **block-type thermal power station fueled by biogas**. The city of Lahr has also had **integrated neighbourhood concepts** drawn up for the two neighbourhoods, for which individual sets of measures have been developed in cooperation with the inhabitants.

Further potential lies in the use of **waste water heat**, which is available for example at the outlet of the sewage treatment plant. With the support of the state of Baden-Württemberg, the city of Lahr has commissioned two **feasibility studies**.



**Wind power** is an important source of renewable energy. As early as 2005, three wind turbines were built on the Langenhard hill. After a fire in 2013, one of them had to be replaced. The repowering plant, which went into operation in 2016, belongs to a new generation of wind turbines and generates significantly more electricity. The planning was carried out with strong support from the Lahr municipal council and the city administration, and in intensive coordination with many other stakeholders.



### Fresh breezes as a collaborative project

"In 2016, our wind turbine went into operation on Langenhard. It is twice as large as its predecessor and produces three times more electricity. The topic of civic participation was crucial for OEKOGENO eG, which funded the project with the help of its own members and two other cooperatives as well as loans. Our cooperation with the city administration of Lahr was excellent. Every question was clarified at short notice; there were no problems that could not be solved. And the wind turbine is keeping the promise that OEKOGENO has made to the citizens."

Georg Hille, project manager OEKOGENO eG



The sun provides light and heat free of charge – you can use its power in the form of photovoltaics and thermal energy. The **SoLAHRdachkataster** provides free information to citizens as to whether their roof is suitable for the use of solar energy. This makes it easier to use solar energy and thereby reduces CO<sub>2</sub> emissions.



### Preserving creation

“For the Catholic Church, active climate protection is the logical consequence of our task to preserve creation. We all need to do our part to achieve this. In our pastoral unit in Lahr, we have in recent years had energy and heat appraisals drawn up for all buildings. This was done in order to reduce energy consumption and CO<sub>2</sub> emissions by means of specific building measures. Due to the huge interiors of churches, consistently limiting room temperatures in winter is an essential contribution, even if visitors do not always approve when they perceive the church to be ‘not heated’. The most significant measure to date has been the installation of a central block-type thermal power station in Sancta Maria parish in 2013, which supplies heat and energy to several very large church buildings in the immediate vicinity.”

Dr Martin Wichmann  
Pastoral assistant, pastoral unit at Schutter



Heating centre with combined heat and power units in Sancta Maria parish



Two **feasibility studies** highlight worthwhile possibilities for waste water use – a potential that is to be tapped into in the coming years.



Solar power plant of the BürgerEnergieGenossenschaft at Freizeithof Langenhard

### Energy transformation as civic commitment

“The balance between economy and ecology should always be kept in mind during the energy revolution. The transformation of the energy system will only succeed if local citizens are involved. This is what we stand for as a citizens’ energy cooperative.”

Brigitta Schrempp  
Spokeswoman of BürgerEnergieGenossenschaft  
E-Werk Mittelbaden eG



By replacing three natural gas CHP units with a new **biogas CHP** unit, badenova Wärmeplus has helped achieve a reduction in CO<sub>2</sub> emissions of around 5,000 tonnes per year. Further savings of about 2,000 tonnes were achieved by expanding the district heating network to include the districts of Kanadaring as well as Kaiserstraße and Lotzbeckstraße.



### Sustainable energy for a secure supply

“As a regional energy supplier, we feel a daily responsibility to ensure the well-being of future generations. In addition to providing an uninterrupted supply of electricity, generating energy in a sustainable manner is important to us. To this end, we have examined and developed the potential available in the Ortenau region from economic and ecological points of view and expanded our expertise. Now, we are operating hydroelectric and wind power plants as well as PV plants in the region.”

Dr. Ulrich Kleine, Member of the Management Board of E-Werk Mittelbaden



## Full speed ahead...

### Heading towards sustainable mobility

The topic of mobility concerns us all. Sustainable mobility is a major contribution to local climate protection. And it is invigorating to the cityscape, when people are out and about on foot, by bicycle, and by bus and train, instead of in motorcades. Lahr has prioritized the promotion of an attractive infrastructure for environmentally friendly means of transport at an early stage. By means of activities and campaigns as well as through our actions as role models, we would like to stimulate a change of awareness among our citizens. Here in Lahr, we have succeeded in creating trend-setting emphases for the whole of Baden-Württemberg.

Since the spring of 2018, one of the first purely **electric buses** in Baden-Württemberg has been in operation in Lahr. This shuttle bus connects the train station/ central bus station with the "Landesgartenschau" (State Garden Show) premises and will subsequently be integrated into the city traffic. At the same time, a **self-driving electric bus** is being tested on public roads in Lahr. The future has already begun.

The city administration is also setting a positive example in the field of electric mobility. The municipal fleet of vehicles includes three emission-free **electric vehicles**; others will follow pending the approval of the municipal council. In addition to this, the citizens of Lahr have access to an **electric car-sharing vehicle**, and the city administration uses **Pedelecs** provided by the company nextbike. Users love this noiseless way of transport.

Since bicyclists and pedestrians are the most environmentally friendly and also the most vulnerable road users, the existing obstacles and danger points have been systematically analysed on the basis of a **bicycle and footpath concept** in 2010, and solutions for a bicycle- and pedestrian-friendly city are continuously being developed and implemented. In 2016, a **pedestrian traffic check** was carried out in two selected districts. Its purpose was to make pedestrian routes safer and more attractive. Stationary traffic also plays an important role in urban traffic planning. The **parking space concept** adopted in 2014 is based on the motto of 'quality instead of quantity', and its implementation will create an attractive city centre both for visitors and residents.



The **reconstruction of the railway station** and the **redevelopment of the Central Bus Station (ZOB)** were completed in time for the State Garden Show in April 2018. Modern, accessible, and well designed, the new stations invite visitors to use public transport. Welcome to climate-friendly Lahr!



First **fully electric public bus** of SWEG in Lahr

**Environmentally friendly mobility**  
"I ride my bike. I use public transport, and I am a member of 'Gemeinsam Mobil Lahr e.V.', a car sharing association. I am living proof that one does not need a car in order to be mobile."  
Lutz Hovestadt, Gemeinsam Mobil Lahr e.V.



**Car-sharing station for electric vehicles**



Pilot project:  
**Self-driving** minibus  
in Lahr

**It's worth it**  
 “As an outpatient nursing service, we travel to many different destinations every day. After lengthy enquiries, calculations, and discussions, we have decided on electric vehicles, since they are the most ecologically and economically sensible option.”

Rainer and Martina Tischel  
MARA nursing service



Local public transport is very important in our city, especially the **Lahrbus**. All the key destinations can be reached in very little time.

Students of the Offenburg University of Applied Sciences have developed a concept for **climate- and environmentally friendly package delivery** in Lahr. Their recommendation: in the future, a greater number of freight bikes and electric vans are to deliver packages in the city. In this way, the climate can be protected, noise avoided, and air quality improved on the last kilometres of the journey.





Upon commission by the city administration, the company nextbike, which operates throughout Germany, began its operations in Lahr by offering **40 Pedelecs** for hire at three stations. After the end of the State Garden Show, seven stations were added with more Pedelecs. Employees, visitors and citizens can now cycle to their destinations in the city in a climate-friendly, comfortable, and energy-saving manner.



Keeping our sights set on the goal: At the beginning of 2018, the entire city area received new and extensive **signposting for bicyclists**.



The new centerpiece of the cycle path network in Lahr is the **Ortенаubücke** (Ortenau bridge), which was inaugurated for the State Garden Show and connects the districts of Mietersheim and Dinglingen.

## Being good, becoming a role model...

### Self-made climate protection

Protecting the climate is a communal responsibility. The city administration of Lahr is aware of this responsibility and contributes its part to the overall societal task. Thanks to an appropriate internal organization, climate protection has become part of everyday administrative life. The city administration strives to achieve the highest possible **CO<sub>2</sub> reduction** in every area. Imitation is welcome!

Saving energy and protecting the climate are **overarching issues within the city administration**, and each department is concerned with them. The General Service and Business Directive (AGA) calls on all employees to reduce and, if possible, avoid harmful effects on the environment and climate. Strategic planning and the realisation of many relevant projects are in the hands of the Department of Environment. However, many other organizational units also address these issues. It is only together that we can achieve our goal.

Our **procurement** is based on social, ecological, and energy-relevant criteria. Switching to recycled paper certified with the Blue Angel eco-label for use at the office saves up to 60 percent in energy and 70 percent in water in the process of production. The city of Lahr has been

awarded the title of 'Recycled Paper-Friendly Municipality'. By replacing 600 single-user printers with a central, multifunctional concept, the administration has achieved additional energy savings.

Since 2008, town halls, schools, and kindergartens, and, since 2013, all other municipal buildings are being supplied with **100 percent certified green electricity**. When awarding contracts, the city places great importance on the specification that at least 25 percent of the electricity come from power plants that are less than six years old. The greater the number of newly developed renewable power sources, the greater the benefits to the environment.

When going on **business trips**, employees from politics and the administration are encouraged to use the railway system as often as possible. If air travel cannot be avoided, the city of Lahr compensates for greenhouse gas emissions by co-financing projects in the field of climate protection. In addition, a **job ticket** is being subsidized, giving municipal staff an incentive to commute using public transport, and showing an appreciation for their willingness to be mobile without leaving a large CO<sub>2</sub> footprint.



The power supply of the town hall buildings was converted to 100 percent green electricity in 2008.



The energy team regularly meets for inter-departmental exchanges.



Recycled paper certified with the Blue Angel seal is used in the daily office work of the city administration.



The team of Volksbank  
Competence Centre in  
Eisenbahnstraße

### Everyone is joining in

"Each and every one of our 443 employees contributes to improving the climate protection balance of our company in his or her respective area. Additional measures to protect our valuable resources were initiated a few years ago in the course of our participation in the state-sponsored project ECOfit.

For us as a cooperative bank with strong regional roots, climate and environmental protection also means that we give priority to regional suppliers and regional products."

Peter Rottenecker  
Chairman of the Volksbank Lahr eG Management Board



The Luther parish received an EMAS certificate in 2011, commonly known as the church label 'Grüner Gockel'.

### Acting responsibly out of conviction

"An environmentally aware and sustainable use of energy and resources as well as ecological sourcing are important to us. Ecological projects are part of our community work and constitute an overarching topic in our educational work with children, youths, and adults."

Environmental Team  
Lutheran community Lahr-Dinglingen



### Sustainability as a corporate strategy

"Sustainability is an integral and essential component of our corporate strategy and forms part of the core values of the GROHE brand along with excellent quality, technology, and design. In 2017, GROHE was the first company in its sector to be awarded the CSR prize of the German government."

Melanie Vrenegor  
Communications Manager Sustainability, Grohe Holding GmbH

In 2016, the GROHE factory in Lahr commissioned a **block-type thermal power station**. It saves 2,550 tonnes of CO<sub>2</sub> per year and thus reduces the annual CO<sub>2</sub> emissions of the production plant by 15 percent. GROHE was nominated for the German Sustainability Award in 2019 for its convincing commitment to climate protection.



### Zehnder Climate Trail at the State Garden Show

"Protecting the environment and the climate by using state-of-the-art technology with a view to economic viability is an integral part of our activities. We are committed to continuously analyzing our energy consumption, constantly improving our energy efficiency, and to complying with legal requirements."

Heiko Braun, CEO Zehnder Group Deutschland GmbH

## Talking to one another, acting together...

### Campaigns and public relations

A municipality can create energy concepts, modernize municipal infrastructure, and bring the energy efficiency of its own properties up to date. However, in terms of climate protection, it is only really successful once its citizens as well as local businesses and institutions are equally committed.

In Lahr, climate protection has become an everyday topic that everyone is aware of. A wide range of communicative measures encourages citizens to contribute their part towards a climate-neutral city of Lahr. Be a part of this process and become active! The citizens of Lahr are promoting climate protection through creative and instructive activities.

Lahr regularly participates in the Baden-Württemberg-wide **Energy Transformation Days** under the motto of 'Energie-wende zum Anfassen und Mitmachen' ('Energy Transformation to Touch and to Join In'). The city has developed a new concept with a variety of activities, guided tours, and experts' discussions hosted by local companies that are all well-received by citizens.

Using energy and water in a conscious manner, reducing consumption and thereby saving costs: the project '**Fifty-Fifty**' shows that this works well in schools. Pupils take saving energy into their own hands and receive 50 percent of the costs that they have saved as extra money for their school. And the climate benefits, as well!

As a member of the **climate partners of the Upper Rhine region**, the city of Lahr supports projects involving local businesses. Small and medium-sized companies can tap into their efficiency potentials through a large number of projects and consulting services such as the **Competence Centre for Energy Efficiency (KEFF)** or the project '**Networked Industry**'. In this context, to create a win-win situation means to protect the climate and save money at the same time.

Modern LED light sources use up to 90 percent less energy than conventional lamps. For its '**alles LeuchtED**' **LED campaign**, the city of Lahr cooperated with electrical retailers, the 'Öko-Institut' (Ecological Institute) in Freiburg, the E-Werk Mittelbaden, and the Ortenau energy agency. The test households in Lahr were all convinced by the quality of the lighting and the energy savings.

In 2009, a **Polar Bear Creative Workshop** gave the youngest citizens of Lahr an opportunity to approach the topic of climate protection. Over the course of two days, children created a life-size paper-mâché polar bear as a symbol of the habitat of the polar bear, which is being threatened by climate change.



## Energy efficiency as the destination of an excursion

"Our SoLAHRhaus demonstrates how renewable energies can be optimally integrated into a building structure. Our solar collectors are not only used to heat drinking water, but also serve as railings on the roof terrace. And the photovoltaic system not only produces green electricity but also shades the windows of the attic rooms in the summer."

Dr. Falk Auer, Local Agenda 21-Group Energy



Over the course of eight years, the Local Agenda 21 Energy Group has conducted a nationwide **field test of heat pumps**. One result is that geothermal heat pumps satisfy expectations with regard to energy efficiency, while air heat pumps do not. Two Fraunhofer Institutes have subsequently come to comparable results.

Energy-efficient construction and modernization require the cooperation of experts from different fields. Hence, the city of Lahr provides financial support to the **Ortenau Building Network**.

Children and young people can experience climate protection in concrete terms by means of the Lahr **Excursion Guide Energy and Water**. At fourteen selected destinations in Lahr, vivid examples of concrete measures can be visited and explored. One such destination is the 'SoLAHRhaus'.



On behalf of the city administration, the Ortenau Energy Agency offers monthly energy consultations in Lahr.



### With KEFF toward operational energy efficiency

"In keeping with the sustainability principle of the MOLOTOW™ brand, we are already powering 75 percent of our headquarters with solar energy. We have undergone the KEFF check primarily to uncover further possibilities of saving energy. As an innovative company, the option of using networked efficiency technologies is also interesting for us. I am fully satisfied with the result."

Jürgen Feuerstein, Managing Director Feuerstein GmbH



### Veggie, please!

"According to the Food and Agriculture Organisation (FAO), livestock farming, especially factory farming, contributes significantly more to global warming than the entire international transport sector. A meat-centred diet has a much less favourable climate balance than a vegetable-based diet. For this reason, we have suggested the introduction of a meat-free day to facilities managed by the city administration of Lahr. Veggie Day was first introduced at four schools in 2013 under the patronage of Mayor Dr. Müller."

Gerhard Siefert  
Head of the Human-Animal-Environment Group of NABU Lahr

Lahr had a **CO<sub>2</sub> footprint** calculated for the 'Chrysanthema' festival, for which the city's marketing department defined social, regional and ecological criteria (including reusable tableware, waste disposal, local products, and goods of regional origin). Lahr has become a model of sustainability for many other major events.



Sustainable architecture impresses visitors with its energy efficiency and modern appearance. At the exhibition 'Lahr architects present exemplarily renovated residential buildings', the citizens of Lahr were able to see in concrete terms what is possible in new construction and modernization.



In many cases, the refrigerator is one of the biggest energy guzzlers in the household. In the course of the campaign **'Who has the oldest fridge in Lahr?'**, a Lahr citizen was able to exchange her refrigerator from the 1930s for a voucher for a modern model of the (at the time) highest efficiency class A++.

**Working together to fix it instead of throwing it away!**

"Our Repair Café is not just a repair shop but offers help for people to help themselves, since the experts share their knowledge. Volunteers offer their skills and their help with a variety of repair jobs for free. Not everything can be restored to a working state, but most visitors go home with their newly repaired electrical appliances, bicycles, clothes, or watches, as well as with new insights and knowledge. That's what makes us the happiest."

Hanne Kaiser-Munz, co-organiser at the Repair Café



How much will be left of a cubic metre of ice after it has been kept in a casing simulating the conditions of a passive house for four weeks in summer temperatures? The citizens of Lahr were able to speculate on this question during the **ice block challenge** of 2007. The campaign vividly demonstrated the effectiveness of efficient thermal insulation. The result? Only half of the ice block had melted.



**Sanieren mit System – aus alt mach neu!**

**Sanierungsprojekt**

- An drei Wohnlagenbauten Luftdichtung
- Projektarbeiten innen- und außen und Regenerierung der Dämmung der Dämmung von E
- Bauphase I: Erneuerung in Koellbe anlagte

**Sanieren mit System – aus alt mach neu!**

**Sanierungsprojekt Nr. 8**

- Art der Wohnanlage: Wohn- und Geschäftshäuser mit dreilagiger Fassade
- Projektbeschreibung und Maßnahmen:
  - Befestigung der Dämme über dem Unterputz auf Stahlanker
  - Instandhaltung der Außenputzschicht
  - WDV-Erneuerung bestehender Einfeldung von Wänden und Dachflächen
  - Erneuerung der Fenster
  - Herstellung des barrierefreien Barrierefreien Einbaus einer Glas-Brühkaffeemaschine, Solaranlage auf dem Dachboden zur Nutzung zur Stromerzeugung und Erreichung der Energieeffizienz
- Standort: Lahr, Deutschland
- Baujahr: 1988/1990, Sanierungsjahr: 2011-2014
- V33e-EP-Planung 115

**CONRAD**

**Energetische Lahr 2014**

## Planning and acting together...

### Cooperation in the age of climate change

Lahr and its twin town Alajuela in Costa Rica are 9,338 kilometres apart. However, the two cities share experiences of increasing climate change and its consequences: heat waves and heavy rainfalls, erosion of the soil, and changes in biological diversity.

Like Lahr, Alajuela has long been active in the field of climate protection and aims to achieve climate neutrality by 2021 in the context of Costa Rica's **national climate goal**. The twinning arrangement between Lahr and Alajuela has existed since the year 2006 and was extended to a climate partnership in 2012. But it is not only the two city administrations that cooperate: civil society is also involved through the activities of the **Freundeskreis Alajuela-Lahr e.V.** based in Lahr and the **Asociación Ciudades Hermanas de Alajuela** (ASOCHA) based in Alajuela.

In the course of a constructive exchange between the two climate partners, a **joint action programme** has been developed. Its goal is to achieve improvements in four important areas: Protection of water resources, waste collection and recycling, quality of life in urban areas as well as information on climate protection, and climate change and adaptation.

Delegations of experts regularly exchange information and visit each other in the partner cities. This has enabled a rapid development of professional relations and friendships as well as the efficient coordination and realisation of projects.

In the course of the **ASA-Kommunal SüdNord 2016** programme, young people from Lahr and Alajuela have spent several months exchanging ideas on climate protection, climate change, and climate adaptation.

With the financial support of the Federal Ministry for Economic Cooperation and Development, two major projects have been realized. Measures for a **sustainable optimization of the management of waste water**, which of course also benefit the environment, are very important for the health of the citizens of Alajuela. It is equally important to secure the **supply of clean drinking water**, which has been significantly improved in Alajuela through reforestation in headwater regions and through environmental education.

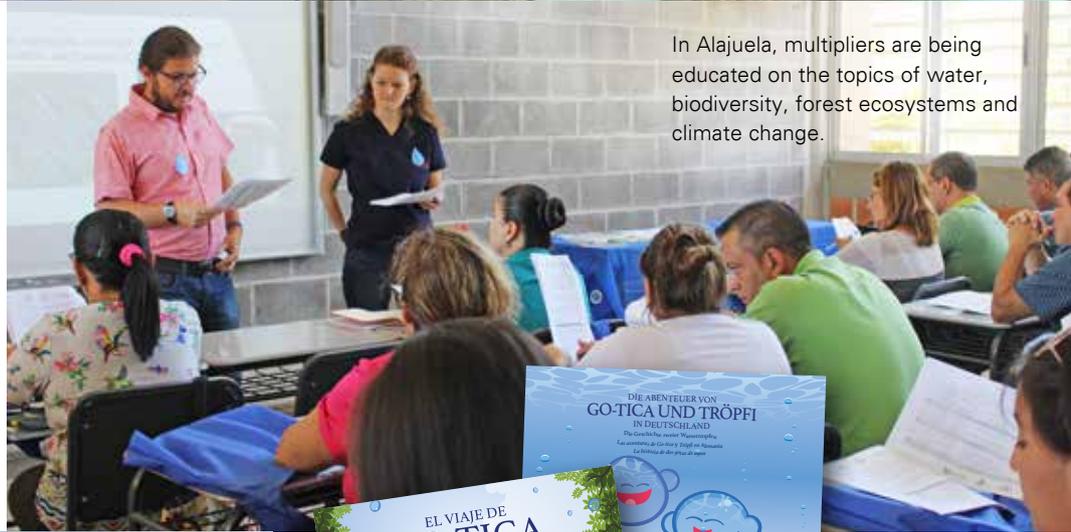


Town twinning and climate partnership in one: Lahr and Alajuela



The programme and its measures are being discussed and updated in workshops bringing together the partners from Alajuela and Lahr.

In April 2018, the joint project **'Sustainable optimization of waste water management for the citizens and for the environment of Alajuela'** was successfully completed. One central and two decentralized sewage treatment plants had been renovated and equipped with modern technology.



In Alajuela, multipliers are being educated on the topics of water, biodiversity, forest ecosystems and climate change.



Environmental and climate protection also includes the protection of drinking water. The project **'Sustainable protection of drinking water sources for the population of Alajuela through environmental education'** protects drinking water sources and alerts the population to a topic that is crucial for our survival.

# Imprint

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## Pictorial sources

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3	Michael Bode
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29	Lahr Municipality; Falk Auer (2x); Ortenau energy agency
30	triolog; Louzy advertising, Fernand Louzy Lahr Municipality
31	Lahr Municipality; Repair Café Lahr; Lahr Municipality; Ackermann Architekten, Lahr; Dieter Ruf, Emmendingen
33	Lahr Municipality; Municipalidad de Alajuela

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# Lahr ■ Cornerstones of Diversity



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