



# Berlin Energy Agency

[www.b-e-a.de](http://www.b-e-a.de)





**Dear Reader,**

the Berlin Energy Agency (BEA) is a modern energy service company. We develop and implement innovative projects in line with our clients' requirements that reduce both their energy costs and CO<sub>2</sub> emissions. While based in Berlin, the BEA operates on a regional, national and international scale.

In this regard, the main focus of our work is on buildings – whether new or old – and their uses. We always take our partners' economic interests into consideration, thereby ensuring that all our solutions are optimal. This is true both during the consultation process as well as in the financing, planning, construction and operation of our generation units and efficiency technology. And we encourage the use of renewable energies whenever and wherever this is technically feasible and sensible on an operational level.

Achieving harmony between the economic and ecological interests of our clients in a socially acceptable way – this is the BEA's mission, one which we fulfil every day.

**Michael Geißler**  
**CEO**

### **Berliner Energieagentur GmbH**

**Established:** 1992

**Shareholders:**

Federal State of Berlin,  
Gasag Berliner Gaswerke AG,  
KfW Bankengruppe,  
Vattenfall Europe Wärme AG

**Share capital:** € 2.56 million

**Turnover:** approx. € 10 million/year

**Employees:** 55



## Partner for Innovation

The BEA acts as an independent innovation-driven service provider in the market economy. As a company in numerous public-private partnerships with powerful public and private shareholders, we have already gained broad competency and economic strengths. Our experts' experience and know-how guarantee the fast and reliable procurement, generation and utilisation of environmentally friendly energy at optimised costs.

## Energy as an Economic Factor

The prudent and sensible use of energy is more important than ever today. And that not only because of our responsibility to the environment, but for economic reasons especially. In almost all areas, energy expenses account for a considerable share of the total costs, while the energy consumption itself impacts negatively on the environment. Yet for that, energy saving potentials often remain undetected due to a lack of know-how and investments.

The BEA is a service provider for the housing industry and the public sector, as well as for industrial, commercial and trading companies. With our foresighted approach, the required experience and our tailored usage of the latest technologies, we provide integrated plans for the rational utilisation of energy.



Know-how. Implementation of energy efficiency-plans requires expert knowledge. BEA advises governments and organisations worldwide on how to use resources economically.

## Gaining a Competitive Edge through Efficiency

The secure supply of energy represents an elementary component of economic and commercial life. Yet the increasing shortage of raw materials and the price increases linked to this, as well as the need to protect the climate, all call for sustainable strategies. The supply and usage of energy have to be evaluated in terms of their efficiency and environmental impact – and restructured accordingly.

The BEA encourages the rational usage of energy in order to gain reductions in the volumes required. By expanding the use of combined heat and power (CHP) systems, our focus is on highly efficient energy generation. We promote the use of energy efficient technologies in buildings and publicly accessible spaces, such as in their lighting systems. Doing so, we apply economic considerations to the options available for renewable energies.

We focus on interdisciplinary and system-overlapping aspects in the planning phase, on tailored solutions in the implementation stage and on transparency in the controlling and monitoring phase. In industrial plants and commercial operations, in residential and office buildings, as well as in public and non-commercial institutions, we unlock energy saving potentials, accelerate innovation and secure their economic viability and the jobs they provide.

- ▶ Accounting
- ▶ Analysis
- ▶ Campaigning
- ▶ Conception
- ▶ Construction
- ▶ Controlling
- ▶ Events
- ▶ Finance
- ▶ Investment
- ▶ Maintenance
- ▶ Operation
- ▶ Planning
- ▶ Reports
- ▶ Studies
- ▶ Tendering

Renewable energies. Sun, wind, water and other natural resources have a growing share in the supply of energy. Today, a wide range of technologies and methods are available to produce power, heat or fuel from renewable energies. BEA is a driving force in the extended use of renewable energies in Berlin.



## Consulting Reduces Costs

Knowledge of the demand together with its characteristics and development are vital prerequisites in order to reduce energy consumption and, in turn, costs. And to achieve this, the systematic recording and analysis of the data are indispensable.

Technological and organisational innovations matched by new services now offer a wide range of beneficial options. One aspect here is to increase efficiency while guaranteeing the same security of supply and operational levels. The BEA provides its customers with advice on modern energy management systems and monitors their development and implementation. Taking the current situation as the starting point, we determine the demand and consumption, followed by an analysis of the business processes and how they flow. Then the controlling and billing systems are examined by us in order to design and plan modernisation and optimisation benefits.

Our energy plans and energy saving strategies guarantee the innovative and secure utilisation of technologies with long-term cost gains. To achieve this, organisational and financing structures are integrated into them which take into account both public sources of funding and the private services available. Our monitoring of the implementation phase then secures the operations and their success. Thus the plan becomes the model.

Through its information and motivation campaigns, as well as its specialist events and networking activities, the BEA together with its clients promote more efficient usage of energy resources, the implementation of renewable energies, as well as procurement, production and management processes in line with future demands.

We also transfer the experience we have gained in Germany to countries in Europe and beyond. We advise governments on the designing and drafting of regulatory frameworks and funding measures. We support organisations and companies on ways to apply technologies which have proven themselves in terms of the rational usage of



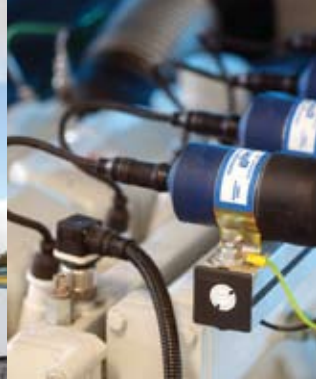
energy. The focus here is especially on the application of combined heat and power systems, modern lighting systems and the use of renewable energies.

### **Energy Services with Guaranteed Savings**

Outdated energy supply units, inefficient application technologies, insufficient servicing and maintenance, as well as no monitoring of the usage represent causes of high energy consumption across all sectors. Target-oriented investments, modern operational management and intelligent motivation of the users are the prerequisites for achieving sustainable reductions in costs.

In its function as an energy service company, the BEA assumes at our own risk the financing and planning, the installation and operations, as well as the controlling and billing of its clients' energy needs. Doing so, we secure the investments for the modernisation, replacement and refurbishment measures required in their buildings and systems. The clients' liquidity remains intact while their operational costs decrease over the long term. The result is that we contractually guarantee their security of supply and efficient use of energy.

We provide our clients with different contracting models for their systems, usually in combination with CHP units that utilise natural gas or bio-natural gas as their energy source. This permits us to offer the electricity generated by our on-location mini-CHP units directly to the consumers in the property at a favourable price, or we feed it into the local power grid. In addition we operate photovoltaic and solar heat units of different sizes and capacities in order to generate heat and power from the sun. Furthermore as part of our contracting services, we also assume the modernisation of compressed air, cooling and lighting systems in our clients' buildings.



## Our Key Activities

### Combined Heat and Power (CHP)

The simultaneous generation of electricity and heat in one unit is called combined heat and power (CHP) generation or cogeneration. Compared to the separate production of heat and power in conventional power plants and individual heating systems, the degree of efficiency with CHP units is up to 40 percent higher. This is achieved by the optimal usage of the fuel being fired – thus making it especially efficient.

The BEA utilises mini-CHP units for the decentralised generation of heat and electricity in residential and office buildings, as well as in hospitals, fire stations, schools, nursing homes and other service industry buildings. In Berlin and the surrounding area, the BEA operates more than 50 mini-CHP units, including several combined heat, power and cold (or trigeneration) systems that also provide cooling. Doing so, we utilise either natural gas or bio-natural gas as the fuel source.

### Renewable Energies

Wind power, bio-gas, photovoltaic or solar thermal systems are gaining a growing share in the supply of energy. In Germany renewable energies are replacing fossil fuels such as coal, oil, gas or uranium – and thus making an essential contribution to climate protection while guaranteeing the long-term security of supply at stable prices.

The BEA is a driving force in the expanded use of renewable energies in Berlin. At numerous locations throughout the city, we are generating electricity and heat using solar power and bio-natural gas. Furthermore, we conduct feasibility studies and analyses of saving potentials in our projects and provide implementation advice in the field of renewable energies.



Energy efficiency. Invest today, save costs tomorrow. Building insulation, cogeneration of heat and power, state-of-the-art heating and control technology, smart concepts. BEA offers consulting know-how and implementation from a single source.

## Energy Efficient Lighting Systems

Good lighting represents a quality of life factor and is a basis of our modern lifestyle. Obsolete lamp filaments and other light sources cause unnecessarily high energy costs in private households, industrial plants and public facilities. In the public lighting system alone, vast savings can be easily achieved because so many streetlights are no longer up to the latest technological standards.

The BEA supports clients from both the public and private commercial sectors in the design and implementation of energy efficient lighting plans. Examples of our services here include the advice we give to municipalities on energy saving technologies as indeed on employment policies in line with environmental and economic criteria.

## Energy Saving Partnerships

Viewing each building as a whole: With our energy saving partnership model – which is also called energy performance contracting (EPC) – an energy saving partner ensures that there is a guaranteed saving in energy costs for the owner of a building. The partner is responsible for achieving the savings target by implementing a whole range of modernisation measures to do so, from smart technologies through to building shells. The costs saved by reducing the energy consumption are shared by both partners on the basis of a previously agreed ratio.

The BEA assesses each building's suitability on behalf of its clients, evaluates the requirements, prepares the tendering process, analyses the offers received, supervises the construction work and any other measures – and then monitors the success achieved on an annual basis. Since 1996, the BEA has successfully launched 26 energy saving partnerships in Berlin alone that approximately 1,400 public buildings and over 500 other buildings. And this model has also proven itself in many other cities and



The pulsating city. Big cities like Berlin consume a lot of energy. For lighting, mobility, heating, household appliances and large industrial plants. BEA identifies potentials for energy-savings in order to waste less of our valuable energy resources.



municipalities both in Germany and abroad where it has formed the basis for numerous successful energy saving contracts.

## Training Measures

The human element plays a vital role when it comes to achieving energy savings and climate protection targets. Simply by raising awareness and motivating users, we can tap into the potential for significant energy savings in private households, offices or businesses. Matched by additional know-how for the decision-makers in companies, organisations and administrations, this leads to a more professional understanding of energy saving measures, the actions required in this regard – and ultimately to success.

The BEA trains target groups in exactly what they require. These can be in the form of tailored training for electricity saving assistants who advise low income households, further training measures for the caretakers and repair teams in buildings or follow-up training measures for energy managers in municipalities. On an international level, we assist in establishing the pre-conditions for energy saving projects, structure the various processes involved and then identify suitable instruments for their implementation on a political level, at the various public administrations and indeed under everyday operational use.

- ▶ **CHP units**
- ▶ **Climate protection**
- ▶ **Combined heat and power**
- ▶ **Eco-friendly procurement**
- ▶ **Energy-efficient modernisation**
- ▶ **Energy-efficiency**
- ▶ **Energy performance contracting**
- ▶ **Environmental education**
- ▶ **Green IT**
- ▶ **Lighting**
- ▶ **Mobility**
- ▶ **Contracting**
- ▶ **Photovoltaics**
- ▶ **Renewable energies**
- ▶ **Solar thermal energy**

## Imprint

### Published by:

Berliner Energieagentur GmbH  
Französische Straße 23  
10117 Berlin

**Telephone:** +49(0)30-293330-0

**Internet:** [www.berliner-e-agentur.de](http://www.berliner-e-agentur.de)

**E-Mail:** [office@berliner-e-agentur.de](mailto:office@berliner-e-agentur.de)

**Editor:** Volker Gustedt

**Design:** [www.bernoh.de](http://www.bernoh.de)

**Photos:** Dietmar Gust, Hoffotografen (Page 3), Fotolia (Page 4/5),  
Sabine Dobre (page 9)

**Print:** ruksaldruck GmbH

