



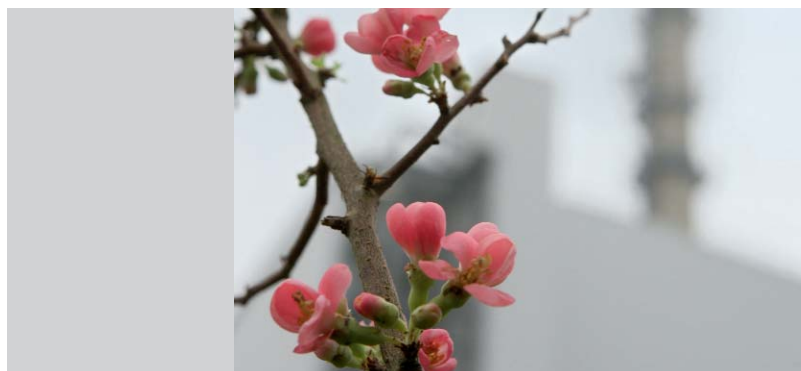
E.ON Energy from Waste

Waste is energy.

Energy is life.

e.on





Integrated, ecological, efficient:

E.ON Energy from Waste

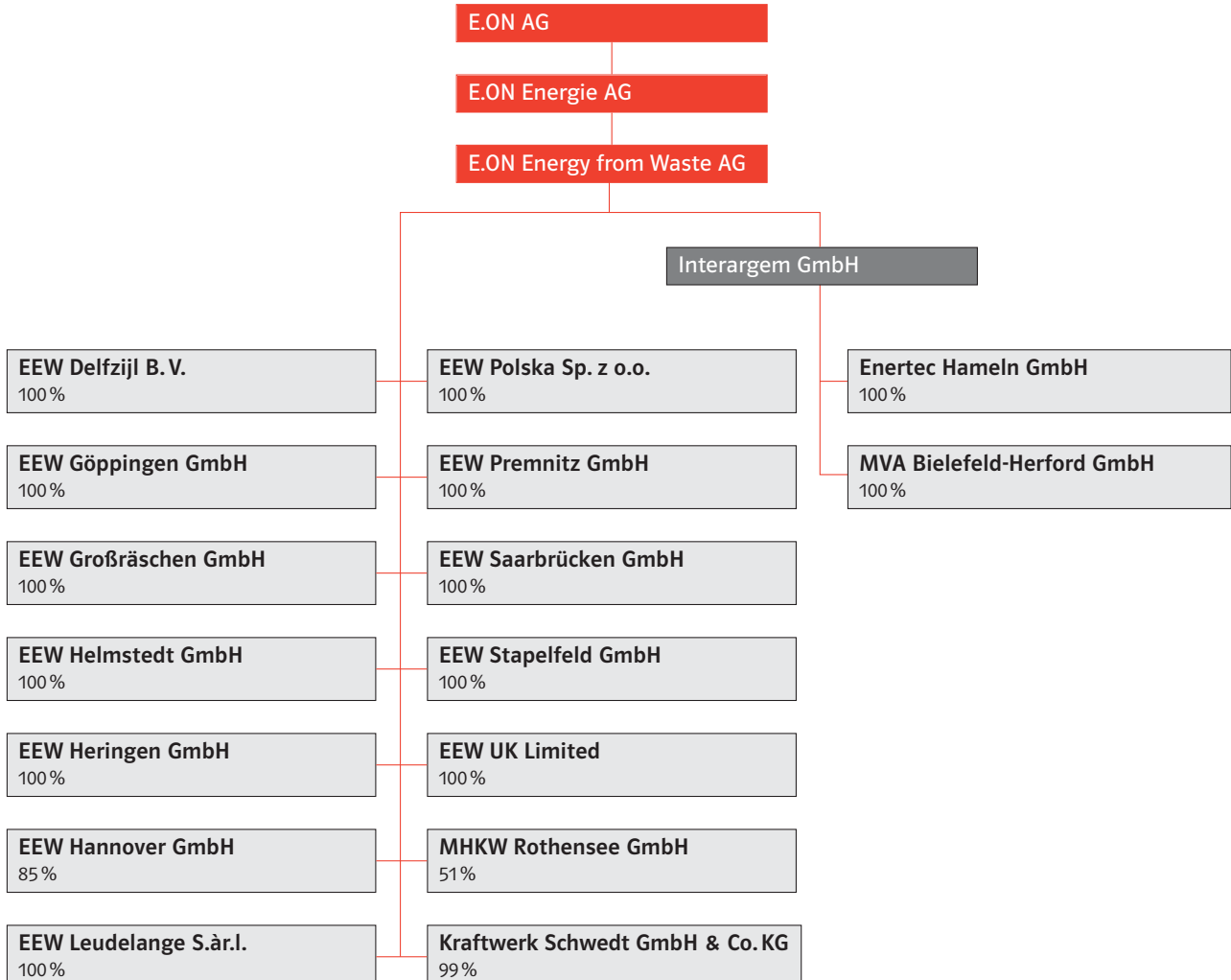
E.ON Energy from Waste AG manages the activities of the E.ON Energy Group in the area of waste incineration. We develop, build and operate waste incineration plants to the highest technical and ecological standards. In doing so, we exploit the potential for energy creation contained in waste, producing environmentally friendly electricity, district heat and process steam. Thanks to its know-how and many years of wide-ranging experience, E.ON Energy from Waste is planning to expand its activities in Europe, outside Germany.



Modern plants – for the most **effective**

Integration within the E.ON group

Waste burning plants are small power plants that create electricity and heat from waste or substitute fuels and form part of E.ON's core business, thus contributing to a balanced energy mix. Since 2003, all activities of the E.ON Energie Group in the area of waste burning have been concentrated within E.ON Energy from Waste AG. The firm is active throughout Germany, through subsidiaries and associated companies.





results

Thermal waste treatment

The burning of waste and the use of the energy released during the process is an important building block of modern and sustainable waste management. Burning is a highly developed technology that guarantees the safe and environmentally friendly treatment of waste and the reduction of the organic content in the waste. We offer municipalities, disposal companies, industry and commercial firms long-term, efficient and secure waste disposal.

During burning, the harmful substances contained in the waste are either destroyed or removed from the materials cycle. Thanks to state-of-the-art, highly efficient flue gas cleaning plants, they are filtered out of the flue gases.

Waste reduction and recycling

Across Germany, around 18 million tonnes of waste are currently burnt safely and in a way that is gentle on the environment. This leads to the volume of waste being reduced by approximately 90 per cent. What's left over is mostly slag. This is processed into building materials used in road building and industrial construction. This enables natural resources such as grit or gravel to be saved. Iron and non-ferrous metals are also recovered and reprocessed and added to the economic cycle as secondary raw materials.

Exploiting the energy-creating potential

The primary task of waste burning plants consists of the safe, environmentally compatible treatment of waste. The concept of using waste to produce energy, however, is gaining increasing favour against a backdrop of the finite supply of fossil fuels and the CO₂ problem.

In an burning plant, the waste is not only treated, but also used to create energy. The energy released during burning process is used to create electricity and district heat, as well as for the production of process steam.

Contribution to energy supply

As modern power stations, the plants already make an important contribution to energy supply in Germany. Waste is currently used to supply around three million people with energy, and the number is increasing. Waste has a calorific value that is comparable with brown coal. Waste burning plants work like brown coal power plants in base load operation. When burning, one tonne of waste provides an average of 600 kilowatt hours of electricity. That's more than an average household uses in two months. By producing energy in a dual-line waste burning plant with an annual capacity of around 300,000 tonnes, a city with 100,000 inhabitants can be supplied with electricity and district heat.

The highest technical standards for

Disposal reliability in the plant network

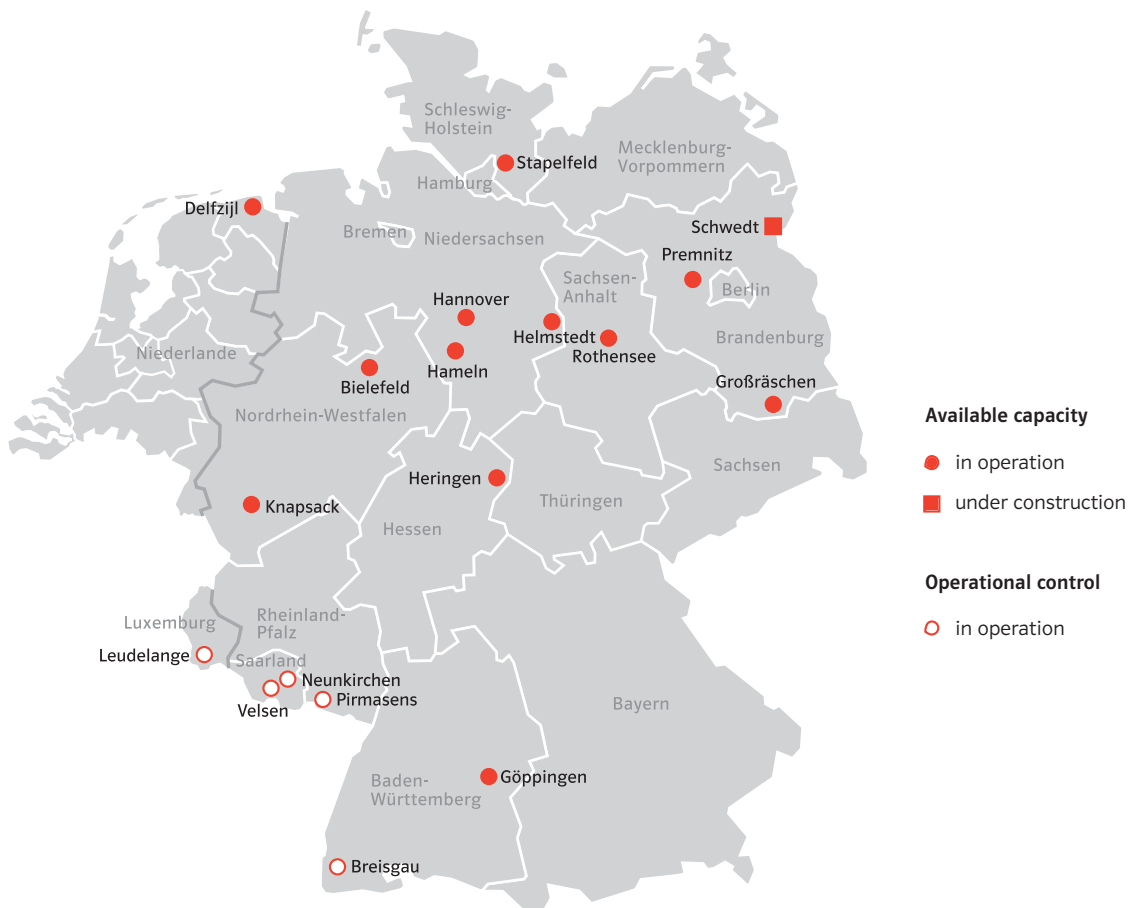
Directly or through subsidiaries or associated companies, E.ON Energy from Waste operates waste burning plants with a capacity of nearly four million tonnes per year and is actively working to expand this by half a million tonnes with newly constructed plants. Already, around 2.100 gigawatt hours of electricity, as well as 2.800 gigawatt hours of heat could be produced annually in our plants.

With the construction of a waste power plant in Delfzijl, in the Netherlands, as well as the taking over of operations at the existing plant and the construction of a new one at Leudelange, in Luxembourg, E.ON Energy from Waste has expanded its activities in Europe outside Germany.

The size of our plant network and the variety of the various plant systems makes it possible to achieve high performance and flexibility through optimised material flow management. This enables us to guarantee our customers complete reliability of disposal.

Managing material flows

We apply forward-thinking and, at the same time, highly flexible operational planning that serves all plants within the Group. It covers the acquisition of waste, the exact, proactive planning of quantities and the intelligent management of variable material flows. For our long-term partnerships, that means the highest level of reliability.



maximum reliability of disposal

Technical know-how

All E.ON Energy from Waste power plants are made up of three complex plant components: thermal waste treatment, energy production and flue gas cleaning. Maximum interaction between these areas in ongoing operations guarantees reliability of disposal and security of supply.

The development of waste power plants into industrial energy production plants places high demands on the suppliers and operators of those plants. E.ON Energy from Waste possesses extensive experience with a range of plant technology, as well as highly qualified and specialist personnel.

Technological progress

Our many years of experience with a variety of burning, flue gas cleaning and power plant technologies enable us to operate our plants efficiently. Continual benchmarking, knowledge transfer and the plant optimisation this results in guarantee constant development of the technology and our employees.

We use state-of-the-art technology to ensure the smooth operation of our complex plants. The experience we gain in daily operation is channelled into improving existing plants, and into the design of new ones. In addition, we work closely with plant suppliers and universities to promote the further development of proven incineration technology. We immediately convert innovations into practical solutions, thus increasing energy efficiency, bringing down costs and protecting the environment.



Clean power plants for the optimum climate

Gentle on resources

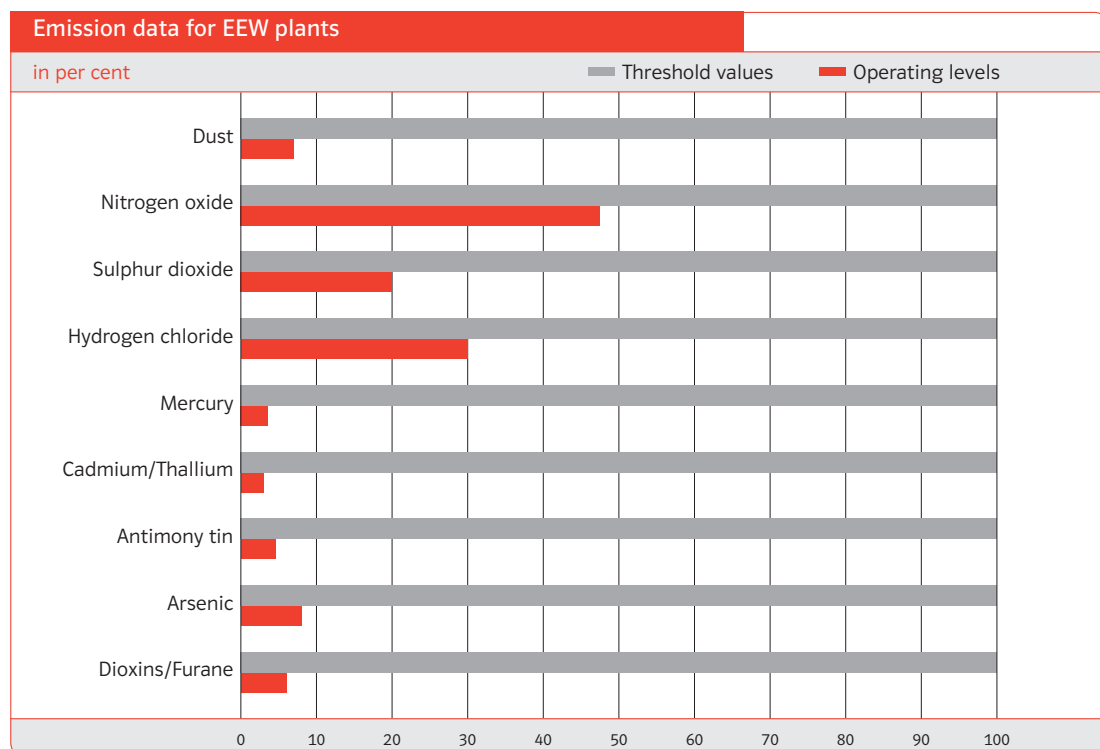
The production of electricity, district heat and process steam from waste spares natural resources such as coal, oil and gas and, in addition, makes an important contribution to protecting the climate: energy from waste is largely renewable energy, as around 60 per cent of the waste consists of renewable materials such as wood, paper, cardboard or other biogenic parts of the waste. The substitution of fossil fuels through waste leads to emission savings and thus contributes to climate protection.

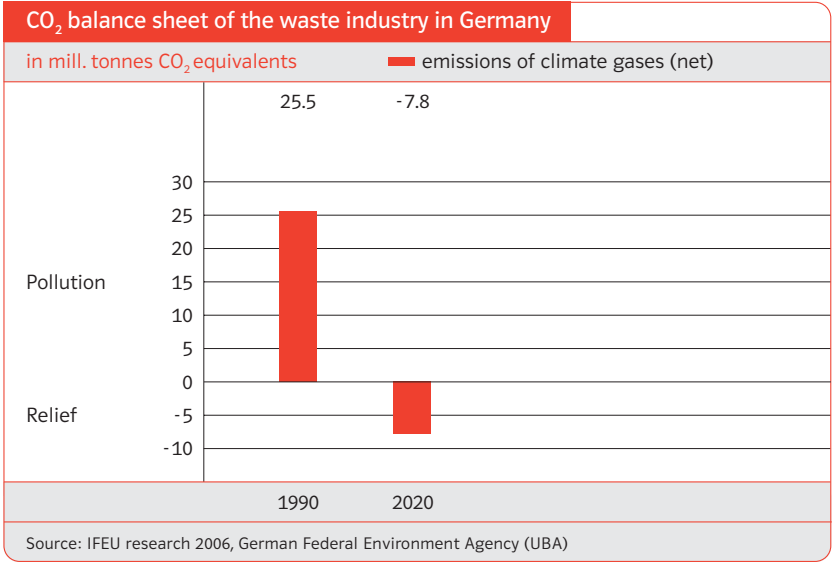
Destroying harmful substances

When waste is burned, flue gases are produced that contain harmful substances such as carbon dioxide, sulphur dioxide, dust, hydrogen chloride, dioxin, soot such as nitric oxide, heavy metal vapours and unincinerated hydrocarbons.

By using state-of-the-art flue gas cleaning technology, flue gases can now be cleaned from harmful substances to avoid damaging the environment. These materials are partly integrated into the slag in a reaction-neutral way, or concentrated in the filter dust as the end product of flue gas cleaning and put safely underground. This process allows harmful substances such as dioxins to be lastingly taken out of the environment. Waste burning plants thus become a genuine "pollution sink".

Waste power plants rank among the absolutely cleanest power plants. Modern flue gas cleaning plants, in turn, operate well within the sharpest threshold values worldwide.





Climate relief

In the past, biological and chemical processes in the biogenic part of the residual waste on disposal sites led to emissions that could harm the climate, such as carbon dioxide and methane. These emissions have contributed significantly to the creation of the greenhouse effect.

Unlike with the disposal of waste, with waste burning, emissions of methane gas that would harm the climate can be excluded. Up to one-quarter of all methane emissions in Germany can thus be prevented. Because of the biogenic part of the waste, the CO₂ emissions, at around 60 per cent, are not relevant to the climate.



Transparent information for ultra-safe technology

Continuous transparency

As an operator of waste power plants, E.ON Energy from Waste is obliged to ensure that threshold values are safely observed. This includes maintaining constant control through the continuous taking of measurements. The observation of these threshold values is permanently monitored by the authorities through online data transfer. On a daily basis, our plants demonstrate that they generally operate significantly within the threshold values established by the authorities. To verify this, using the plant in Hanover-Lahe as an example, the values are published daily online. In addition, all our plants publish annual values in the regional newspapers.

Open door events

To meet the needs of the public for transparent information, we also offer tours on site in our plants. During our "open door days", we regularly open up our plants for interested members of the public.

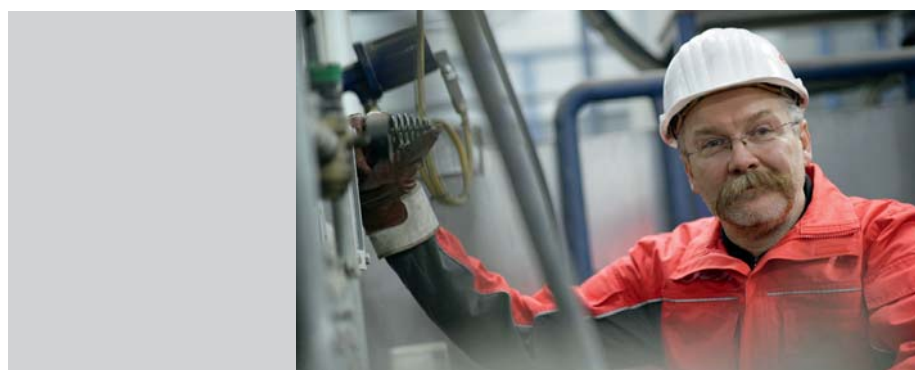
Plants in operation			
Location	Start-up	Number of lines	Technical incineration capacity thous. t/year
Rothensee	2005/2006	4	660
Helmstedt	1999/2005	3	525
Bielefeld ¹⁾	1981/1996/2007	3	420
Stapelfeld	1979/1997	2	350
Hanover	2005	2	280
Hameln ¹⁾	1993/2006/2009	3	300
Göppingen	1975/1998	1	155
Premnitz	2001/2008	2	250
Großräschen	2008	1	240
Knapsack	2008	2	240
Heringen	2009	2	270
Delfzijl (The Netherlands)	2009	2	275
		27	3.965

1) Shareholding through Interargem GmbH

Plants operated ²⁾			
Location	Start-up	Number of lines	Technical incineration capacity thous. t/year
Pirmasens	1999	2	180
Breisgau	2005	1	185
Neunkirchen	1969	2	150
Leudelange (Luxembourg) ³⁾	1975	3	135
Velsen	1997	2	250
		10	900

2) Operational management through E.ON Energy from Waste Saarbrücken GmbH
3) Start of construction and takeover of operations in July 2008

Plants under construction			
Location	Start-up	Number of lines	Technical incineration capacity thous. t/year
Schwedt	2010	1	250
Leudelange (Luxembourg)	2010	1	150
		2	400





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