

A shining example of energy efficiency

As of this September, it has become much easier to conserve energy: the new EU energy label for lamps is giving consumers greater transparency when shopping for lamps. [Find out more](#)



11 climate-friendly energy solutions for the world

The Energy Export Initiative of the Federal Ministry for Economic Affairs and Energy supports providers of climate-friendly energy solutions across the globe. The number of projects under this initiative is expected to reach 100 by the end of this year.



Up until then, it is worthwhile to look at the many full project reports that have been published on the initiative's website: Viet Nam, Togo, Ghana, France, Honduras – the reference list of the Energy Export Initiative provides for a whole universe of ideas for climate-friendly energy solutions from across the world. The [abstracts for what are almost 100 projects now](#) are not just bursting with clever ideas and inventions. They also show the high level of commitment and dedication to a global energy transition that gives as many people as possible access to clean energy and affordable electricity. The [Renewable Energy Solutions programme](#) (RES) supports German companies as they implement reference projects at representative sites across the world and showcase these to the public. In Togo, for instance, a country where only 8% of the rural population have access to electricity. Under Togo's national strategy, all households are to be supplied with energy by 2030. By then, the country wants to increase the share of renewables in its energy mix to 50%. This requires a vast amount of energy expertise.

Learning matter: 3,400 installation technicians and engineers for Africa

This expertise can be offered by German companies such as PV specialist 'maxx solar' from the German state of Thuringia. As part of the Renewable Energy Solutions programme, an off-grid PV installation complete with a battery storage unit was put in place in Lomé, Togo, at the HQ of a local provider of PV systems who also operates a research and training unit. The project was part of the Renewable Energy Solutions programme. Demonstration installations like this one are an important milestone for companies seeking to access new markets.

The installation's 105 solar modules generate some 90 kilowatt hours (kWh) of electricity per day. Unused power can be stored and used at night time or when there is little sunshine. The building is now operating completely independently. And – and this is special to Togo – the installed system not only provides electricity, it is also used for training sessions. Since 2012, the GREEN Solar Academy has trained up more than 3,400 African installation technicians and engineers, who can now put in place and operate PV installations and do maintenance work.

Funding: up to €65,000 per project

The [German Energy Agency](#) (dena) offers advice and support to those implementing such projects, especially to help them with relevant information or with marketing and training. The Federal Ministry for Economic Affairs and Energy supports this work, providing up to €65,000 per project. This funding can be used to establish sales structures, train up partners for sales and installations, and to inform potential customers about ways in which the products can be used. Close cooperation with representatives from business and politics allows participating companies to also build local networks.

The financing for the RES programme is provided by the Federal Ministry for Economic Affairs and Energy under its Energy Export Initiative. For the company 'maxx solar', for instance, this support has meant that they have been able to have staff of their own at the project in Togo and to build close relations with their local partner, KYA Energy. "This way, you can learn more about you mutual strengths and take the time to adjust the project to the situation in the region", says Vivian Blümel, a representative of 'maxx solar'.

Reading matter: many inspiring examples of projects for 2021

The Togolese project is the first of many inspiring examples from the Energy Export Initiative which are to be covered in detail on the website of the Energy Export Initiative before the 100th project will open at the end of 2021. By no means all the reports are about solar energy or PV installations. There are also projects for water treatment, efficient industrial equipment, floating PV installations, and biogas. Companies will be reporting on how they have been able to harness the project and how their projects have been developing since.

The next round of applications for the RES programme begins in early 2022.

FURTHER INFORMATION

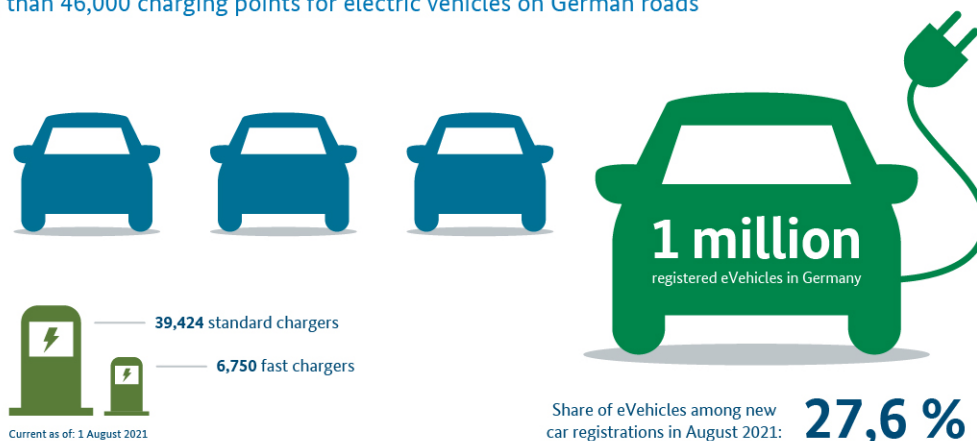
- ➔ [German Energy Solutions - 100 projects under the Renewable Energy Solutions programme](#)
- ➔ [Information on the Energy Export Initiative, provided by dena](#)
- ➔ [Federal Ministry for Economic Affairs and Energy: The Energy Export Initiative](#)
- ➔ [German Energy Solutions – Interview with the Delegation of German Industry and Commerce in Ghana \(AHK Ghana\)](#)

The trend towards electric mobility

The objective is to have more electric vehicles on German roads, so as to make the transport sector more climate-friendly. We have now cracked the mark of 1 million electric vehicles. And there are more than 46,000 charging stations for them.

One in four newly registered cars is an electric one*

More than 46,000 charging points for electric vehicles on German roads



*pure eDrives and plug-in hybrids

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Electric mobility is booming. If smartly connected to the grid system, it can become a major component of the energy transition. Prospective buyers of a new car have a difficult decision to make:

they can choose between more than 70 models of electric cars. One in four newly registered cars in Germany is powered by electricity. This includes pure electric vehicles and plug-in hybrids, whose batteries can be recharged externally. By July 2021, more than one million electric vehicles had found their way from the factory to the roads of Germany. This figure is to rise to 7 to 10 million by 2030. According to the latest estimate, it might even be 14 million by then. The car manufacturers are fully on board. All German vehicle manufacturers now have ambitious electrification strategies in place.

By 2030, Germany wants to establish itself as a leading market and as the no. 1 provider of electric mobility. The charging infrastructure is also to be further extended. It is regarded as a key for the acceptance of electric vehicles, and for sales. As of today, there are already more than 46,000 charging points that are accessible to the public in Germany. The Federal Government's Charging Infrastructure Master Plan is to guarantee that the charging infrastructure will cater to up to 14 million electric cars by 2030. The measures designed to ensure this include targeted funding and roll-out of the infrastructure network across the whole of Germany.

FURTHER INFORMATION

- [\[> Article from Economic Policy Highlights \(Schlaglichter der Wirtschaftspolitik\): 'In the spotlight: The boom of electric mobility'](#)
- [\[> Electric mobility in Germany](#)

What exactly is the bioeconomy?

Bicycle tires made from dandelion caoutchouc, reusable cutlery from palm leaves, vegan 'leather' made from mushrooms, packaging made of straw. What is the role of the bioeconomy in this? Come this way to find out.



This is what it's all about: Renewables, bio-based natural resources can replace oil and other fossil materials in many areas of our lives.

Bicycles made from bamboo, food colouring from apple pomace – there are almost endless possibilities in which the industrial bioeconomy can make our products more sustainable and climate-friendly. You've never heard about the bioeconomy? This is what it is:

More climate action, less dependency on coal, gas etc.

Oil, gas, coal and other energy sources that are used in the production of many projects are finite, meaning they will run out at some point. So what should we be using instead? There is a quest for new, non-fossil raw materials. The industrial sector is also looking for these. If you switch over to using renewable, bio-based natural raw materials, this will make you less dependent on fossil fuels and also help you conserve energy and be more climate-friendly. After all, this sustainable way of doing business causes fewer carbon emissions from industrial processes and uses less water and energy. In other words, the industrial bio-economy is about a modern, environmentally-friendly way of doing business that makes efficient use of biological resources such as plants, animals and microorganisms.

Peter Altmaier: 'Biologisation' is the next big thing after digitisation

It could result in innovative production methods, new products and fresh growth opportunities for almost all sectors. This will not only help protect resources and the environment, it is also an interesting prospect for German businesses. Experts say that there are strong growth opportunities for the global bio-economy over the next 20 to 30 years. A study conducted by the European Commission in 2019 estimates a rise in global turnover to €22 bn or €23 bn per year by 2050 (from today's approx. €14 bn). Federal Minister for Economic Affairs and Energy Peter Altmaier is therefore sure that: "After digitisation, biologisation of the economy will usher in the major cycle of growth and innovation."

Research funding for the bioeconomy: From lab to market

There are many labs where successful research is already being done into these new technologies. To help with the transfer from lab to market, the Federal Ministry for Economic Affairs and Energy has launched a dedicated [funding programme](#) for the industrial bioeconomy. The first two funding awards were handed over in late June 2021. The first of the projects to have received funding will demonstrate how it is possible to protect the climate and the environment without having to do without the taste of meat. Mycelia, parts of mushrooms, are used to create meat substitutes. The second project uses CO₂, initially from biogas plants, to cultivate algae. If used at a large scale, this could help cut CO₂ emissions quite considerably.

Digital landscape for best-practice examples

To highlight these and other exciting ideas for everyone to see, the Federal Ministry for Economic Affairs and Energy and the Industrial Bioeconomy dialogue platform are building an online map on which companies can have their activities in the field of the bioeconomy pinpointed. Did you know, for instance, that mushrooms can be used as natural insulation? The Nature Foam project, for

example, uses mushrooms to bind together biogenic waste materials such as wood or straw to make stable insulation panels. The mushrooms form a dense network of chitin fibres. After a few days, this results in dense and stable panels made from natural resources and offering excellent insulation. The panels are fully biodegradable.

Exemplary networking between showcase regions

Some German regions have already got well-established networks in the field of the industrial bioeconomy, sometimes even with demonstration plants that can produce goods at a large scale. This helps companies bring products from the conceptual phase to industrial production and integrate them into regional value networks. Interested regions can apply for this. Find out more [here](#).

If you want to learn more about the bioeconomy, you can also consult Germany's [National Strategy for the Bioeconomy](#) (in German only) which was adopted in early 2020 (PDF download, 10 MB) or the [2030 Industrial Strategy on the Industrial Bioeconomy](#) (in German).

FURTHER INFORMATION

- [\[→ National Strategy for the Bioeconomy\]](#)
- [\[→ Federal Ministry for Economic Affairs and Energy: Biotechnology and bioeconomy\]](#)
- [\[→ Federal Ministry for Economic Affairs and Energy: Biotech industry\]](#)
- [\[→ Federal Ministry for Economic Affairs and Energy: Funding programme for the industrial bioeconomy\]](#)
- [\[→ Concept 2.0 for the dialogue platform for the industrial bioeconomy \(PDF download, 0.5 MB\)\]](#)

Quote of the week



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“Within the next three years, the EEG surcharge must be fully abolished if electricity is to remain affordable.”

Peter Altmaier, Federal Minister for Economic Affairs and Energy, commenting the planned reduction of the EEG surcharge

What the press say

This time in ‘What the press say’: How fuel made from biodegradable waste could make aviation more environmentally friendly, how the wind power industry is reinventing itself at sea, and how renewables have overtaken fossil fuels in Europe.



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BR, 13 September 2021: ‘Sustainable fuel from biodegradable waste: green kerosene for the climate’

At Munich Airport, airlines can add small amounts of sustainable kerosene to their fuel. So could green kerosene made from biodegradable waste be a breakthrough? This is the question addressed by the BR (Bavarian Broadcasting Service).

Die Welt, 10 September 2021: ‘Offshore wind power: A sector is reinventing itself’

New wind farms in the North Sea and the Baltic Sea are to be built and operated without the need for subsidies. The sector also wants to produce hydrogen on a large scale in the North Sea, as Die Welt reports.

MDR, 10 September 2021 ‘Renewables on the advance in Europe’

The MDR (Central German Broadcasting Service) covers the 2021 World Nuclear Industry Status Report. According to this report, Europe is now generating more electricity from renewables than from fossil energy resources.

energiewendebauen.de expert portal relaunched

Ranging from climate-neutral heating systems to energy-efficient retrofitting and housing construction, to municipal and neighbourhood energy supplies: the expert portal 'energiewendebauen.de' provides full information on the funding priorities underpinning the buildings and neighbourhoods chapter of the 7th Energy Research Programme of the Federal Government. This includes digital tools, concepts, and methods.

Fifth annual meeting by the Energy Efficiency and Climate Action Networks Initiative to be held on 22 September 2021

The Energy Efficiency and Climate Action Networks Initiative (IEEKN) was launched by the Federal Government and the business associations at the end of 2014. It is one of the central measures undertaken as part of the National Action Plan on Energy Efficiency (NAPE). The initiative is to help companies set goals for themselves in order to improve their energy efficiency and climate impact as part of a moderated transfer of expertise. The German Energy Agency (DENA) heads up the IEEKN office on behalf of the Federal Ministry for Economic Affairs and Energy. Registration for the annual meeting is free of charge. It will be held under the motto "Working together to improve energy efficiency and climate action".

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