80 million together for the energy switch

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In the middle of June, the BMWK launched its nationwide energy-saving campaign entitled "80 million together for energy change" aimed at industry, SMEs and consumers. "Of course, those of us in politics will also have to put our own house in order and save more ourselves - in the federal administration buildings, for example," said Federal Minister Habeck, commenting on the campaign, and provides evidence: through a variety of measures, the BMWK this summer will now save 40 per cent of the energy used to cool its buildings and beginning in autumn 15 per cent of the energy used for heating, while 100 per cent is already being saved on illuminating the façade.

Germany intends to and must end its dependence on Russian imports and subsequent susceptibility to blackmail.

This can only be achieved with more renewable energies and more energy efficiency, since this will strengthen our independence, is good for the climate and is easy on the wallet. "Only by pulling together will we be able to bring about the energy switch - a rapid switch from fossil fuels to renewables," says Robert Habeck and refers to the strong alliance of associations with whom the BMWK is now jointly calling for measures to save energy.

With its "80 million for the energy switch" campaign, the alliance offers practical tips, suggestions and examples to make saving energy as easy as possible. And it applies to all sectors - businesses as well as private households.
On 23 June, the Federal Government announced the second of three escalation levels of the Emergency Plan for Gas, the alert level for gas. In the video, Federal Minister Habeck explains the background circumstances and emphasises that the security of supply continues to be ensured.

“There is a disruption in the gas supply, which has made this step necessary,” the minister said, describing the background circumstances to the announcement of the alert level. “Security of supply is currently ensured, but the situation is tense.” It was now necessary to reduce gas consumption in order to be prepared for the winter. The reason for announcing the alert level was the further reduction in gas supplies from Russia via the Nord Stream 1 pipeline in mid-June, which had led to even more tensions on the gas market.

Fill level of gas storage tanks at 60 per cent

At just under 60 per cent, gas storage facilities are fuller than in the previous year. However, if Russian gas deliveries via the Nord Stream 1 pipeline remain at the low level of 40 percent of the total...
capacity, a storage level of 90 per cent by December is hardly achievable without additional measures.

What exactly is the Emergency Plan for Gas?
The Emergency Plan for Gas regulates the procedure based on three levels of alert in the event that the supply of gas in Germany is threatened. Robert Habeck did not announce the early warning level of the Gas Emergency Plan until the end of March. This meant that the gas supply in Germany was subsequently being closely monitored as a precautionary measure. With the announcement of the alert level, the market players are still responsible for mitigating the situation on their own. Only when a „significant disruption to the gas supply or some other significant deterioration of the gas supply situation“ is reported, is it time to trigger the emergency level for gas (level 3 of the emergency plan), which the Federal Government can announce by means of an ordinance.

„From now on, gas is a scarce commodity“.

The Federal Minister went on to say: „Even if quantities of gas can currently still be procured on the market and stored, the situation is serious and winter will come. We must not delude ourselves: cutting gas supplies is an economic attack on us by Putin. It is clearly Putin's strategy to create insecurity, drive up prices and divide us as a society. Even if you don't feel it yet, we are in a gas crisis. From now on, gas is a scarce commodity.“

Re-connecting coal-fired power plants to the grid

By announcing the alert level, the Federal Government can now also begin to re-connect more coal-fired power plants to the grid to further reduce gas consumption in the power sector. At the same time, it has made a credit line of initially 15 billion euros available to fill gas storage facilities for Trading Hub Europe (THE), the market area manager for the entire German market area.

FURTHER INFORMATION

[BMWK press release „Federal Ministry for Economic Affairs and Climate Action announces alert level of the Emergency Plan for Gas – security of supply still ensured“]
G7: More climate action and ambitious environmental protection

In Berlin, the G7 climate, energy and environment ministers made a first-time commitment to the goal of a predominantly decarbonised electricity supply by 2035. They also committed for the first time to phasing out coal-fired power generation.

With this commitment, the G7 are sending a strong message for more climate action - with a view to the 1.5-degree target and solidarity with the countries hit hardest by climate change. Their [communiqué (in German only)](https://www.g7.de/), published at the end of May, is considered an important prerequisite for achieving urgent progress among the members of the G20 and at the next „COP27“ UN Climate Change Conference in November in Sharm El-Sheikh, Egypt. Germany has held the [G7 Presidency](https://www.g7.de/) since 1 January and will host and lead the work process until 31 December 2022.

The Group of Seven (G7) is an informal forum of the Heads of State and Government of the seven leading industrialised nations. These include Canada, France, Germany, Italy, Japan, the United Kingdom of Great Britain and Northern Ireland, and the United States of America.

In their communiqué, the G7 make it clear that they want to stick to their course together and come up with effective answers to the major challenges posed by the war in Ukraine with regard to the energy prices and security of supply in Europe and worldwide that have resulted. Together, they intend to continue to do more to promote the global energy transition and climate action and emphasise that these have long since become matters of national, European and international energy security.

In order to achieve these goals, they have committed, among other things, for the first time to the goal of a predominantly decarbonised electricity supply by 2035 and to phasing out coal-fired power...
The G7 recognised in their communiqué for the first time that they need to provide greater support to particularly vulnerable countries in dealing with the damage and losses caused by climate change. For the first time, they committed to working with other countries to double the provision of climate finance for adaptation to developing countries by 2025. Among other things, they call on multilateral development banks to present plans in time for “COP27” on how they can bring their portfolios into line with the 1.5-degree target.

The international financing of fossil fuels is also to end by the end of 2022. The commitment includes exceptions in limited cases if they are in line with the 1.5-degree target and the Paris Agreement. In this context, the G7 recognise for the first time that subsidies for fossil fuels are incompatible with the goals of the Paris Agreement.

In their communiqué, the G7 also emphasise the fundamental importance of decarbonising industry. In this respect, the 2020s are crucial years, they say. For this reason, the G7 member countries intend to cooperate even more closely internationally to accelerate the establishment of international markets for near-zero-emission industrial goods (green steel and cement). In a fundamental step, the G7 agreed on a common understanding for the definition of near-zero-emission steel and cement production and a so-called policy toolbox for industrial decarbonisation. This was based on the International Energy Agency (IEA) report „Achieving Net Zero Heavy Industry Sectors in G7 Members“, which explains in detail the definition and supporting policy tools that can also be used beyond the G7.

To further accelerate the hydrogen ramp-up, the G7 launched the G7 Hydrogen Action Pact to cooperate on ramping up global markets, in addition to the development, regulation and promotion of hydrogen supply chains.

The communiqué also focused on the transport sector, which is to be „highly“ decarbonised by 2030. To this end, the G7 committed to significantly increasing the sale, share and uptake of zero-emission vehicles (such as electric cars) in the current decade.

There are also common reduction targets now for energy-related emissions from buildings. The G7 also agreed on measures to decarbonise heating and cooling in buildings and to switch from fossil to renewable energies. Furthermore, zero-emission new buildings should ideally become standard by 2030 or earlier. Renovation rates are to be increased and support provided for the training of the workforce required to do this. In addition, the members of the G7 committed to improving data on the embedded carbon of their buildings.

The joint communiqué of the G7 climate, energy and environment ministers, including all the political decisions taken on the climate, biodiversity and the pollution crisis can be found here. It is now imperative that the most politically relevant decisions also be included in the G7 Leaders’ Communiqué.

FURTHER INFORMATION

🔗 Communiqué from the G7 Ministers for Climate, Energy and Environment
Saving energy at home made easy

Do you know which household appliances eat up the most electricity at home and how easy it is to curb their appetite? We’ve put together a selection of energy-saving tips you might find useful.

This is where most of the energy is consumed in the home

Large household appliances and consumer electronics are the biggest energy guzzlers.

These are the biggest energy guzzlers in private households

Large household appliances and consumer electronics consume the most energy. IT equipment, TV and audio equipment are the biggest cost drivers on your electricity bill, accounting for 28 per cent of the average total electricity consumption of households. Washing machines and tumble dryers account for a whopping 14 percent, followed by lighting (13%), the use of refrigerators and freezers.
(11%), cookers with electric hobs (9%) and dishwashers (8%). Other consumption accounts for 17%.

The good news is that even by following simple energy-saving tips, electricity consumption and your electricity bill can be reduced.

FURTHER INFORMATION

[⇒ Energy Switch Campaign website (in German only)]

Expansion of nature-compatible wind power to be accelerated significantly

The Federal Cabinet has approved a law aimed at further accelerating the expansion of onshore wind energy and achieving the two-percent land use target by 2032. It commits the federal states to making significantly more territory available.

By 2030, the share of renewable energies in the electricity supply is to be increased to 80 percent. In order to achieve this aim, onshore wind energy must be expanded by a further ten gigawatts (GW) every year. By 2035, the installed capacity is to grow to 157 GW, and by 2040 to 160 GW. From then on, the installed capacity is to remain at this high level.

However, the expansion of wind energy is not only crucial to achieving climate goals. Since the start of the Russian war of aggression in Ukraine, it has also irreversibly become a matter of national security and essential to increasing Germany’s independence from imports of fossil fuels. And to achieve all this, more land area must be made available for onshore wind.
Each federal state will therefore be required to make a contribution to the expansion of wind energy. Two percent of the state's land area is to be made available for onshore wind energy in the future. To date, however, only around 0.5 percent has been designated for expansion. By 2026, this is now to be increased to 1.4 percent with the Onshore Wind Energy Act and will reach the full two percent by 2032. To achieve this, large states in terms of area must set aside between 1.8 and 2.2 percent and city states 0.5 percent of their territory for wind energy by 2032. States that exceed their targets may „cede“ part of their wind zones to other states.

Federal states may continue to designate its wind zones areas and minimum distances from wind turbines. However, if a federal state fails to meet its area targets as specified in the Onshore Wind Energy Act, state-specific minimum distance rules will not be applied within the designated wind zones. This is to ensure that state-specific minimum distance rules do not prevent the area targets being met.

Legal safeguards will be in place to ensure that landscape conservation areas can also be included when selecting areas for wind energy expansion. At the same time, protection zones for endangered species will be defined and high ecological standards guaranteed.

FURTHER INFORMATION

[🔗 Joint press release „Federal Cabinet significantly accelerates nature-compatible wind power expansion“. (in German only)]
[🔗 BMWK Explainer video on the Onshore Wind Energy Act (in German only)]
E-cars: next generation battery housing

More charging power, more range, more climate-friendly: the CoolBat research project aims to make battery housings in electric cars lighter and reduce CO₂ emissions during production.

The CoolBat research project is investigating how innovative design principles, materials and production processes can help to manufacture housings for battery systems in a climate-friendly way and with better usage properties. When the housings are lighter, the range of electric cars increases. At the same time, the researchers want to improve the performance of the batteries and provide faster charging. With the aid of new findings (relating to lightweighting in particular), the production of the housings is expected to become significantly more efficient compared with previous methods.

Individual systems are combined

To this end, every development step is closely evaluated for its CO₂ saving potential and CO₂ sequestration. This is because the elements of the battery system of an e-car include not only the battery module itself with its cells, but also the housing with structures for load distribution and temperature regulation. These include frames, lids and base plates. They protect the batteries from overheating and also from damage in the event of an accident. The researchers now want to integrate more functions in a smaller installation space with fewer interfaces. To achieve this, they are combining individual systems that in future will combine thermal and mechanical tasks. Load-bearing structures will in future have so-called temperature control channels cast directly into them. In the base plates, for example, the function of the cooling unit will be combined with that of crash protection in a single component.
Aluminium foam makes it all possible

This is achieved with aluminium foam. In the event of an accident, the lightweight material absorbs a lot of the energy generated by the impact. The aluminium foam is combined with a so-called phase change material, which can store large amounts of heat and cold energy and release it again as needed. The combination of the two materials also reduces the energy required to cool the electric battery. The covers of the battery housing are designed in such a way that the housing can optimally absorb the loads acting on it.

The project team is also developing and testing new thermal conductive materials. They replace previously complexly manufactured and therefore expensive and less environmentally friendly thermal conductive pastes. Attention is also given to the use of sustainable materials for fire protection. As a result of such integrated lightweight solutions, it will be possible in future to achieve 15 per cent CO₂ savings per battery housing. This means there is still considerable optimisation potential in today's battery housings.

Blueprint for other sectors and applications

Launched in May 2021 and scheduled to run until April 2024, the „CoolBat research project - CO₂-saving lightweight construction solutions using a demonstrator. Next generation battery housings“ - is funded by the BMWK in the Technology Transfer Programme for Lightweight Construction (TTP LB) with around 2.9 million euros. The results are to be transferred at a later date to other applications and sectors where large batteries are used - for example in trains, aircraft and ships, or for food and medical shipments.

The project partners are the Fraunhofer Institute for Machine Tools and Forming Technology IWU (coordination), Auto-Entwicklungsring Sachsen FES/AES, Fraunhofer IFAM (Fraunhofer Institute for Manufacturing Technology and Applied Materials IFAM), Fraunhofer IST (Fraunhofer Institute for Surface Engineering and Thin Films IST), Fraunhofer WKI (Fraunhofer Institute for Wood Research Wilhelm-Klauditz Institut WKI), INVENT, Compositence, iPoint, TIGRES, LXP Group, Basdorf, Lampe & Partners and MID Solutions.

FURTHER INFORMATION

What exactly is lightweighting?
Quote of the week

„Get involved! By saving energy, you help Germany become less dependent on Russian imports and do your bit for the climate.”
Federal Minister Robert Habeck on the Federal Government's energy saving campaign.

What the press say

This time in „What the press say”: what possibilities Germans have to save gas, how solar cells can generate electricity in the dark, and what wind power’s current status is in Germany.

sueddeutsche.de, 8 June 2022: „How solar power can be produced at night“ (in German only)

Researchers have developed solar cells that can generate electricity in the dark. sueddeutsche.de questions the benefits.
More wind energy is to play an important role in the expansion of renewables. ZDF presents the current status with numerous graphics.

EU Energy Council takes key decisions for greater climate action

The Council of EU Energy Ministers agreed on a binding EU energy efficiency target and increased the current renewables expansion target from 32 to 40 per cent by 2030. It also adopted the Gas Storage Regulation, which requires that EU member states maintain minimum filling levels in their gas storage facilities by 1 November 2022.

European product database for energy labelling

The new database enables consumers to compare the energy efficiency class and other data on different household products. Information on over one million products is included in the registry.

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