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Greenhouse gas emissions are plummeting?

2020 will be good for energy and the climate - as the energy transition takes up speed, energy-related CO2 emissions in Germany are falling.

In 2019, Germany cut its CO_2 emissions by around 50 million tonnes – a whopping 6%-reduction from the previous year. According to estimates provided by the Working Group on Energy Balances for the year 2019, CO_2 emissions were down 33% from 1990 levels. The energy industry played a key role in achieving this.

Energy industry a key contributor to the reduction in CO_2 emissions

One of the main factors driving the reduction in CO_2 emissions last year was a significant reduction in electricity consumption. Gross electricity consumption shrank by 575 terawatt-hours – falling to its lowest level for twenty years. Other factors included an increase in energy efficiency in many sectors, the recent deterioration of the business climate and also an increase in CO_2 allowance prices under the EU emissions trading system. In addition to this, there was a rise in electricity generation from renewables, whilst coal-fired electricity generation fell – resulting in lower electricity-related CO_2 emissions. Wind turbines, hydro, solar and biogas installations together generated virtually as much electricity as all coal-fired and nuclear power stations combined. This rise in renewable electricity generation was mainly due to the new solar PV systems added in 2019 and the favourable wind conditions registered throughout the year.

46% of power was produced by Renewables in 2019, consumers used 42% of electricity sourced from Renewabels.

The rising CO_2 allowance prices meant that power stations running on fossil fuels such as lignite and hard coal considerably curbed their electricity generation on many days last year as they were unable to generate electricity at competitive prices. This benefitted gas-fired power plants, with gas-fired power generation increasing by eleven per cent. Gas-fired power plants emit less CO_2 compared with other fossil fuel power plants and therefore require fewer CO_2 allowances.

More efforts needed on buildings and transport

Buildings and transport had a negative impact on the CO_2 balance, with emissions in both these sectors increasing in 2019. The use of fuel oil, natural gas, petrol and diesel all increased compared with the previous year. This partly included topping up the stocks of light fuel oil. A lot more needs to be done to reduce harmful greenhouse gas emissions in the buildings and the transport sector.

An important step in this direction was taken at the end of last year when the government decided to introduce a carbon price for the heat and transport sectors. From 2021, the heat and transport sectors will have to pay for the emissions they produce – something well

known to the energy and industrial sectors, which have long been covered by the EU emissions trading system.

The Federal Government also changed the funding requirements for the refurbishment of buildings to make these more energy efficient. In addition, it introduced funding for replacing old oil-fired heating systems at the beginning of 2020 – providing grants which cover up to 45% of the investment cost. Investment grants are also available for installing energy-efficient and climate-friendly heating systems, even in cases where these do not replace an oil-fired heating system. Last but not least, homeowners will be able to save on tax if they decide to undertake modernisation measures that make their home more energy efficient.

Further expansion of onshore wind needed

In order to ensure that Germany's energy supply remains secure even after all of its nuclear and coal-fired power stations have been switched off, renewable energy needs to be further expanded. By 2030, 65% of Germany’s electricity is to come from renewables. An expansion of renewable energy is needed, particular of onshore wind energy – where expansion rates fell sharply in the last two years.

Federal Minister for Economic Affairs and Energy Peter Altmaier presented a work plan for strengthening onshore wind energy at the beginning of last October. The plan envisages providing sufficient land for building wind turbines, speeding up approval procedures and raising acceptance for wind farms amongst the population. The Federal Government, the German Länder and the municipalities will all need to work together in order for this plan to succeed.

Based on: http://www.bmwi-energiewende.de/EWD/Redaktion/EN/Newsletter/2020/01/Meldung/topthema.html