

Press Release

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German Renewable Energy Federation presents study on new electricity market design for renewables

Berlin, 22-03-2022. The German Renewable Energy Federation (BEE) presented a proposal for an electricity market design based on renewable energies. Together with its sectoral and regional member associations and supported by more than 70 stakeholders from the entire energy sector, BEE commissioned and supported the study "New Electricity Market Design for the Integration of Fluctuating Renewable Energies", which was scientifically implemented by the Fraunhofer Institutes for Energy Economics and Energy System Technology (IEE) and Solar Energy Systems (ISE). The study focuses not only on the economic framework of flexibilities and renewable sources of energy, but also on central aspects of supply security as well as the financing of the costs of the energy system. All proposed measures in the study were legally examined and assessed by the law firm Becker Büttner Held.

In order to achieve the climate targets, the new German government in its coalition treaty agreed that the share of renewable energies in the electricity demand should be at least 80 percent by 2030. Accordingly, the system, which has so far been based on fossil energy sources, must increasingly adapt to renewable energies - especially to high quantities from variable sources such as solar and wind. Although these sources lower the electricity price on the stock exchange, today's market design does not provide an enabling economic basis and thus no basis for the further expansion of renewable energies. In addition to the removal of market barriers to the expansion of renewables, a central lever is to stimulate the flexibility of electricity supply and demand. This strengthens the feed-in priority of renewable energies and makes use of the growing system responsibility of renewable energies. In addition to economic aspects, the study also considered business aspects for the operation of renewable energies and the required flexibility options for consumers, storage and electricity producers. In contrast to other studies, e.g. the long-term scenarios of the Federal Ministry of Economic Affairs and Climate Action (BMWK), it shows that the energy transition in the electricity sector can be organised by predominantly using regional value creation potentials.

'One of the special features of the study is the analysis of the economic profitability of renewable energies and flexibility options for the energy system of the future. It represents an important pathway to achieving climate neutrality, which at the same time can significantly reduce the dependence on imports of energy resources and electricity and also fulfils the requirements for security of supply through predominantly domestic value creation. A secure energy supply is guaranteed at all times - even in the event of earlier coal phase-out by 2030. We thus provide a comprehensive proposal for the Climate Neutral Electricity System platform planned by the new German government. The study was accompanied by an intensive discourse with associations, renewable energy companies, grid operators and electricity traders. At the same time, its submission underlines that the renewable sectors now want to take responsibility for the overall system', says BEE President Dr. Simone Peter.

These are the core results of the study:

1. Due to the lack of an appropriate economic basis the current regulatory framework in the electricity market prevents further expansion of renewable energies, which are necessary for climate protection.
2. Changes to the current electricity market are therefore necessary. In order to make the future expansion of renewable energies economically viable, the flexibility options needed for this must and can be sufficiently expanded at the same time.
3. An early coal phase-out by 2030 is possible.

4. Bioenergy, hydro power, CHP plants and storage can provide sufficient dispatchable capacity for security of supply, while at the same time reducing the need for the expansion of hydrogen power plant capacity.
5. Up to 100 GW of electrolysis capacity can be built in Germany in a financially rewarding way and with high regional value creation, so that imports of green hydrogen is not necessary for the implementation of the energy transition in Germany.
6. The currently fixed support period of 20 years should be converted into a quantity support to enable renewable energies to react to electricity prices themselves. This will ensure the economic viability of renewable energy installations.
7. With increasing sector coupling and the creation of sufficient flexibility options in the energy system, renewable energies will be fully competitive by 2040.
8. Meaningful savings of grid operation costs can be achieved if the focus is on decentralised electricity generation from renewable energies and generation-related hydrogen production from variable renewable energies.

Further Information:

The short version of the electricity market design study in English can be found [here](#).

As the umbrella organization for the renewable energy sector in Germany, the BEE brings together the interests of 50 associations and companies from the wind, bioenergy, solar, geothermal and hydropower sectors. In this way, we represent 30,000 individual members, including more than 5,000 companies, 316,000 jobs and around 6.5 million plant operators. Our goal: 100 percent renewable energy in the areas of electricity, heat and transport.

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