



# The Energy Transition in Germany: Market Designs speeding up the roll-out of Renewables

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# Who we are

As the umbrella organization of the renewable energy sector, the BEE bundles the interests of around 60 member associations and companies with 30,000 individual members, including more than 5,000 companies.

Our goal: 100 % renewable energy in the electricity, heating, and mobility sector



# The need for a faster expansion of Renewable Energies is growing

The importance of a fossil-free energy supply is becoming more and more obvious.

The price and supply crisis of fossil energies intensified in 2022.

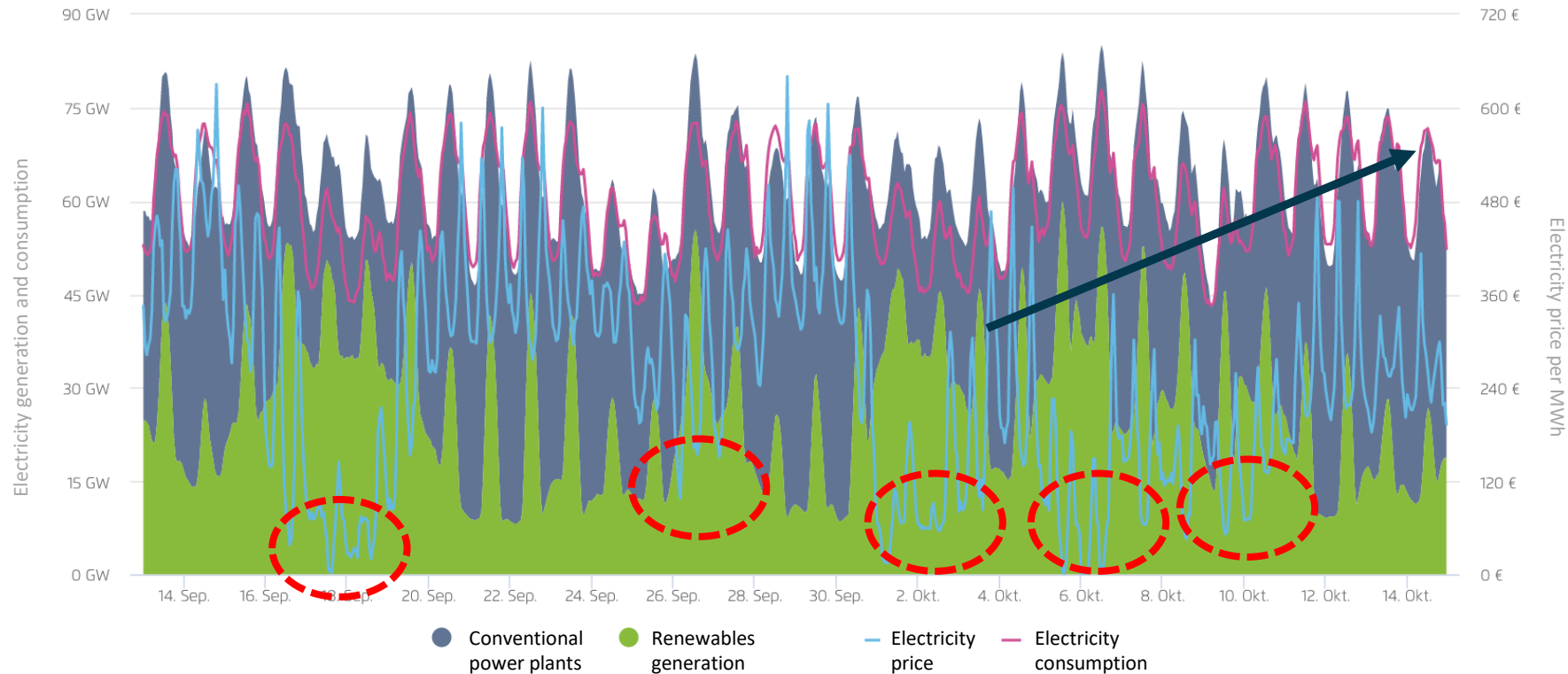
Therefore, we must unleash Renewable Energies in all end-use sectors, locally, nationally, EU-wide, globally

- for climate protection,
- for affordable energy prices,
- for security of supply, and
- for regional value creation.

**=> We need more ambition and more action.**



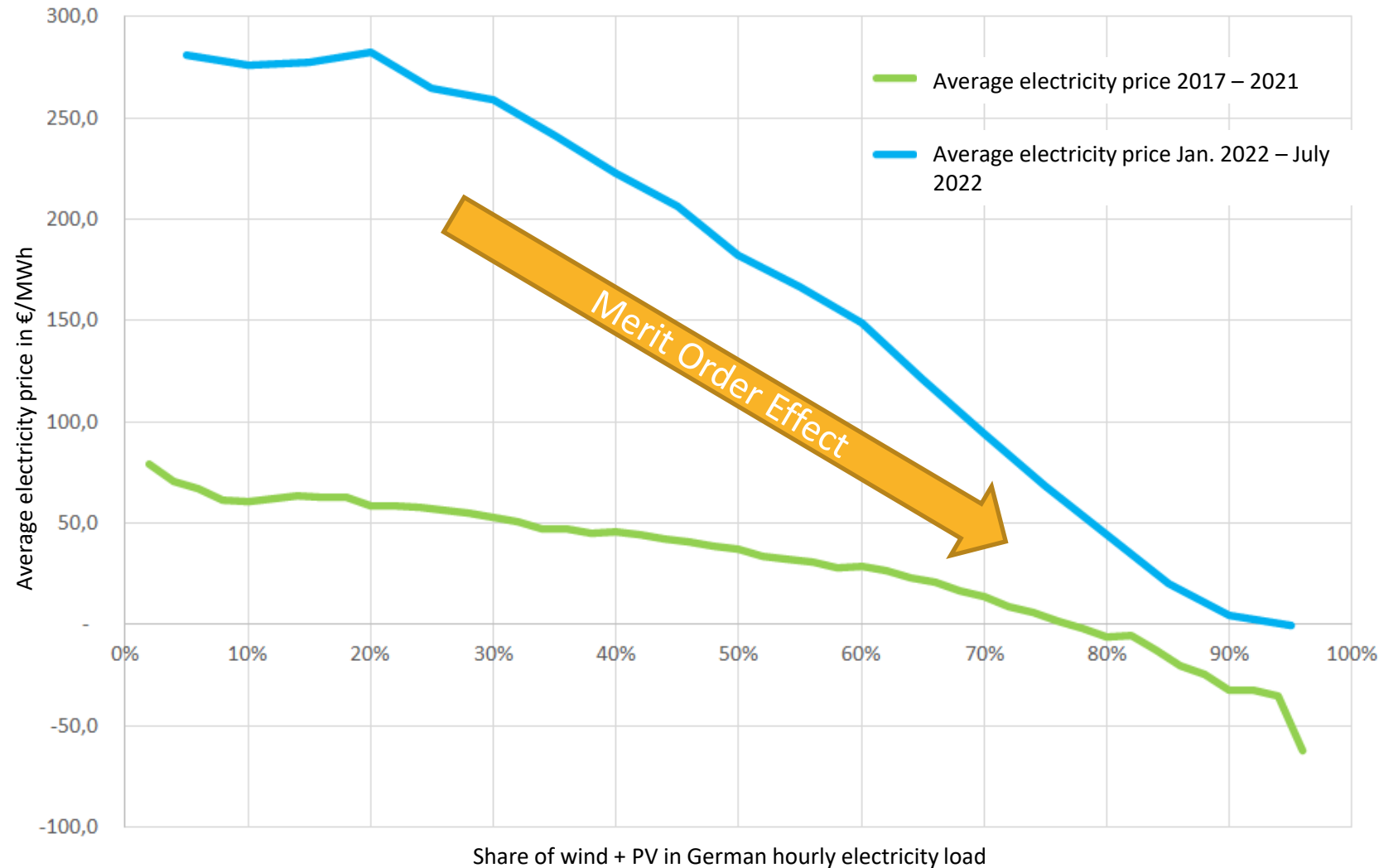
# Extreme price rally on the energy markets (here: spot electricity market)



A strong price increase over the last weeks on the spot market (black arrow), with strong short-term price drops, when variable Renewable Energy feed-in (Wind, Solar) is high (red circles)

➔ Renewables significantly lower electricity prices.

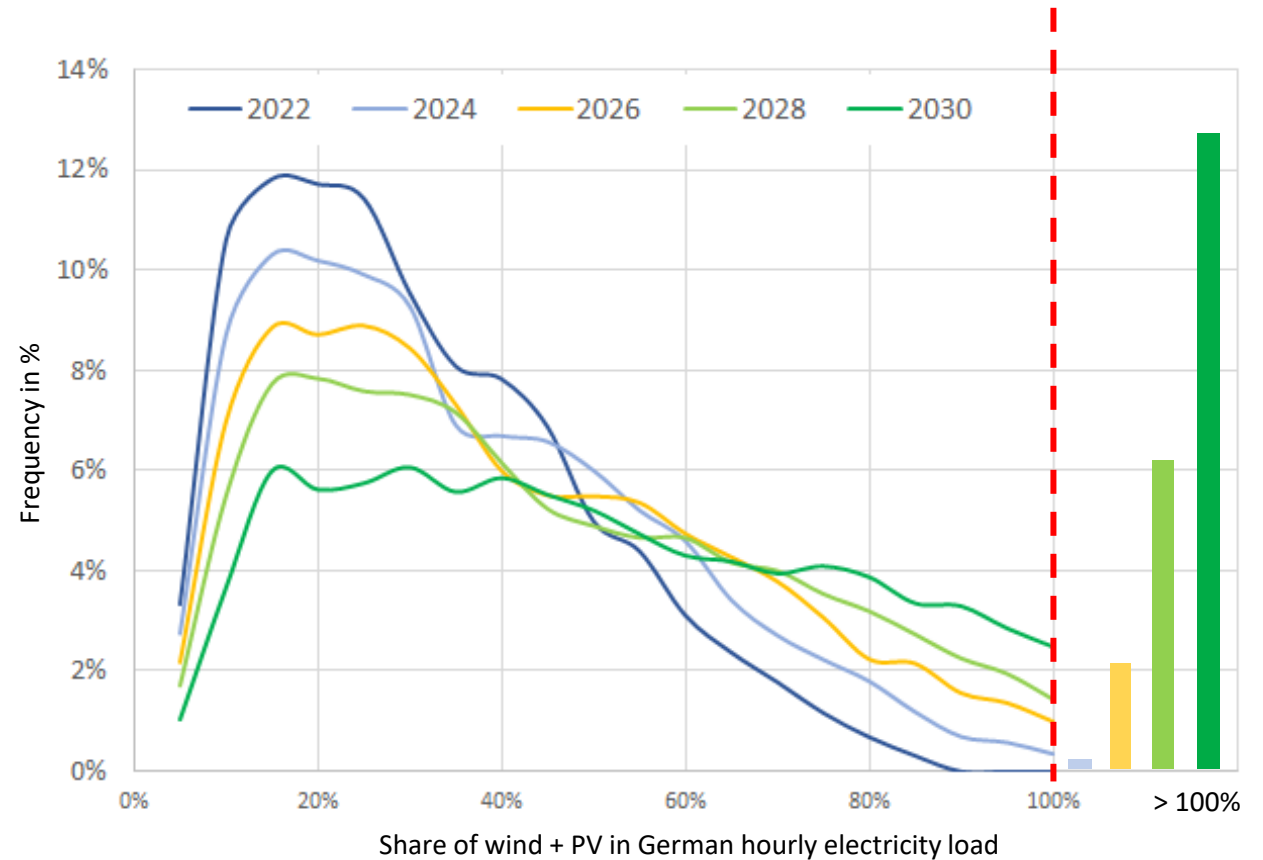
# Renewable energies significantly reduce electricity prices - even in the energy crisis



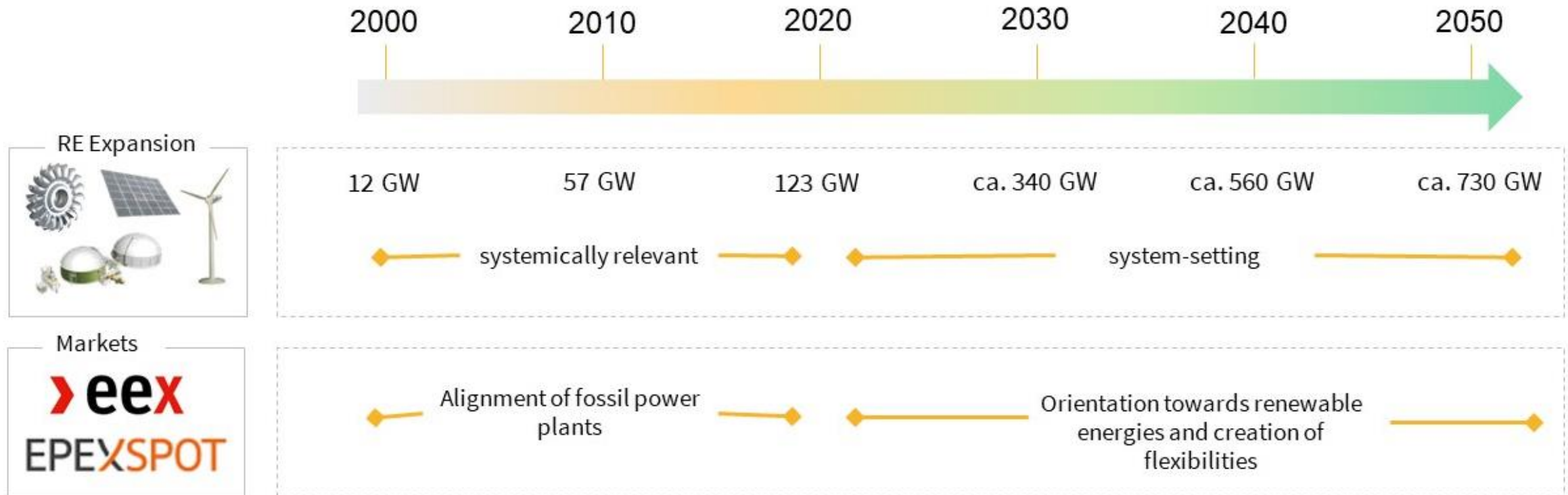
# Expansion towards high RES shares in the coming years is expected

In the coming years, there will be a significant increase of high RE shares of above 75% in the hourly electricity load.

=> **Almost independent of fossil price increases, renewables will protect the national economy from extreme prices.**



# Implementation of the energy transition requires realignment of the markets

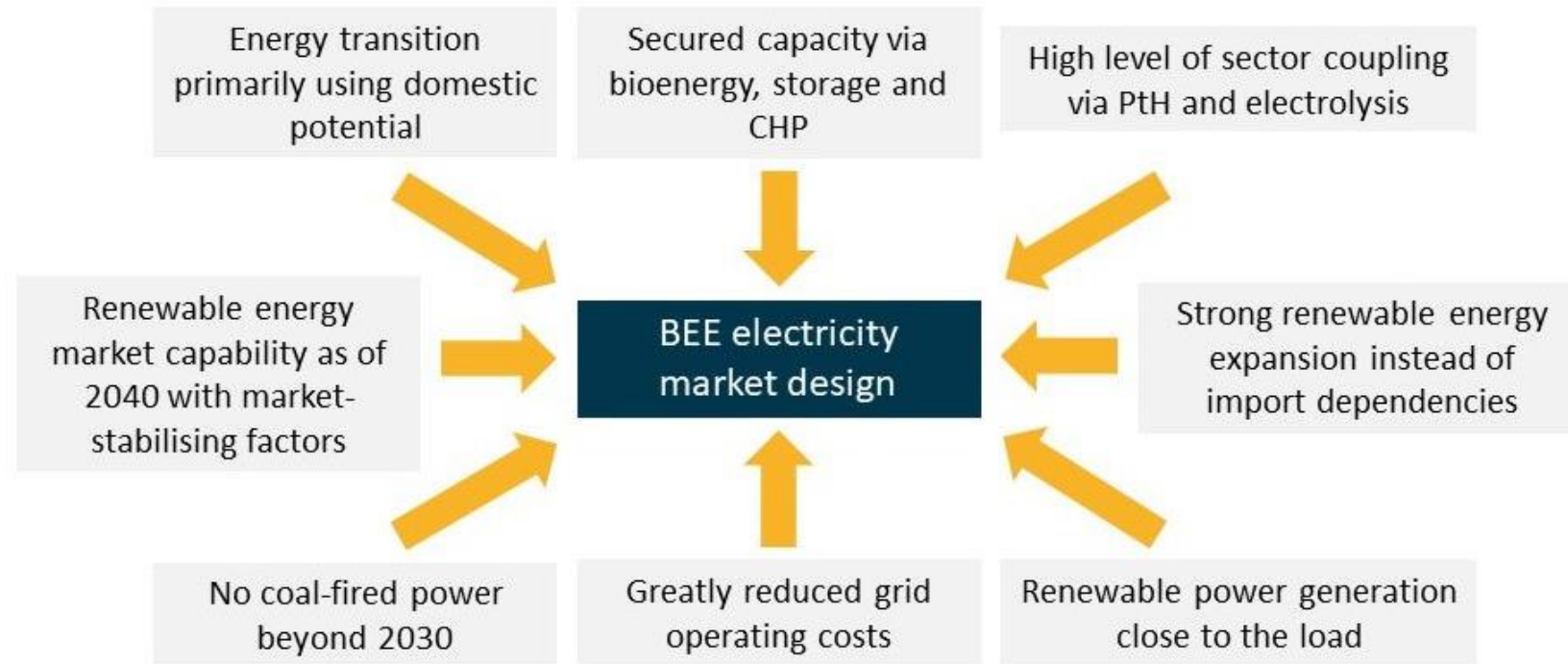


Renewable Energies are becoming system-setting in the course of the energy transition. Fluctuating Wind and Solar must be balanced by flexible power on the consumer and generator side (Biogas, Hydro, Geothermal power, Storage, PtX).

1. The current regulatory framework in the electricity market slows down the expansion of renewable energies, which are necessary for climate protection.
2. Flexibility options must be significantly expanded at the same time.
3. An early coal phase-out by 2030 is technically and economically feasible.
4. Bioenergy, hydro power, sector coupling and storage options can provide the dispatchable capacity needed for security of supply, while at the same time reducing the need of hydrogen power plant capacity.
5. Up to 100 GW of electrolysis capacity can be built in Germany, so that imports of green hydrogen are not necessary for implementing the energy transition in Germany.
6. With increasing availability of sector coupling and various flexibility options in the energy system, renewable energies will be fully competitive.
7. Meaningful savings of grid costs can be achieved, if the focus is on decentralised and distributed electricity generation from renewables and generation-related hydrogen production from variable renewable energies.



# Key findings of the BEE electricity market design study



The BEE electricity market design study provides evidence for a regionally realizable energy transition with an increased domestic value creation.

# Learn more about the study on our landing page

[www.klimaneutrales-stromsystem.de/english.html](http://www.klimaneutrales-stromsystem.de/english.html)

## BEE study

### New Electricity Market Design for the Integration of Fluctuating Renewable Energies

The German Renewable Energy Federation (BEE) published the study "New Electricity Market Design for the Integration of Fluctuating Renewable Energies" in December 2021. Together with its sectoral and regional member associations and supported by more than 70 stakeholders from the entire energy sector, the BEE commissioned and supported the study, which was scientifically implemented by the Fraunhofer Institutes for Energy Economics and Energy System Technology (IEE) and Solar Energy Systems (ISE) and legally reviewed by the law firm Becker Büttner Held (BBH).

The background of the study is the current electricity market design which leads despite low-cost generation of renewable energies, both to negative electricity prices and increasing shares of energy volumes that are not remunerated, as well as to lower market values in the medium term. This hinders the economic efficiency of the expansion of renewable energies necessary for climate protection.

The comprehensive study shows how a climate-neutral electricity system must be designed. In addition to the required flexibility options in the consumer, storage and generating sectors, the study also considers economic and business aspects for the operation of renewable energies. into the compatibility of the individual measures with the European legal framework also ensures that the proposals for a new electricity market design are compatible with national and European law.

The full study is only [available in German](#). A short version of the study, a press release as well as the presentation of the core findings are available for download here.



## Downloads

[Short version of the study](#)

[Presentation of core findings](#)

[Press Release](#)

# Requirements for national price caps on electricity prices

1. No retrospective interventions.
2. Time limitation of the measures (less than 6 months, clear commitment to functioning markets).
3. Need to preserve and further stimulate flexibilities and a diversified renewable energy mix.
4. Allowing for continued investment scope for accelerated RE expansion. (Consider the impact on futures markets/long-term markets and supply chain bottlenecks).
5. Coordinate measures in the European energy network.
6. Set up the “Climate Neutral Electricity System” platform as soon as possible.

# Thank you for your attention!

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