SECTOR COUPLING IN THE HEATING SECTOR CAN BE COST-NEUTRAL FOR CONSUMERS IN ENERGY-EFFICIENT BUILDINGS

First study on behalf of the Federation of German Consumer Organisations (vzbv) on the financial impact of sector coupling on the energy costs of private consumers

BACKGROUND

Sector coupling may not increase costs for private consumers

Fossil fuels must be replaced by renewable energies in many areas in order to achieve the climate protection targets. The use of renewable electricity for heating purposes can be part of the solution. The so-called sector coupling between the electricity and heating sector changes the energy mix for heat supply. This has a direct impact on the energy costs that private consumers have to pay for a warm home.

But what impact will increased sector coupling have on energy costs for private consumers in the future? Will it become more expensive? Will it become cheaper? Does the Federal Government have to adapt the legal framework and, if so, how?

Answers to these questions can be found in a study conducted by Öko-Institut e.V. on behalf of vzbv in 2018.

CONTENT

The report examines the possible consequences of an increased sector coupling on the energy costs of private households in 2030 for two energy price projections. Five different household types were used to calculate the financial impact of the increased use of electricity for heating buildings. The study examines two different variants, which differ essentially in the proportion of electric heat pumps in the heat supply in 2030. In the variant with a large proportion of electric heat pumps, it is assumed that almost all new buildings and around 60 percent of all residential buildings refurbished by 2030 will receive a heat pump in future. This means that in 2030 every fifth residential building will have a heat pump. In the second variant, around half of all new buildings and around 40 percent of all residential buildings refurbished by 2030 will receive a heat pump. The calculations were based on energy savings of 16 percent by 2030 in the building sector.

RESULTS

Study shows: sector coupling can be cost neutral for private consumers under certain conditions

The results of the study show that sector coupling can be implemented in a roughly cost-neutral manner. The energy savings in the modelling are somewhat higher than the rising energy prices. As a result, the annual energy costs in 2030 remain roughly the same for the five selected type households. Energy costs in the variant

verbraucherzentrale Bundesverband with many heat pumps even tend to be somewhat lower. The average household in Germany pays approx. 1,020 euros in 2017 and in 2030 - depending on the degree of electrification - approx. 990 to approx. 1,000 euros for the annual energy costs. A prerequisite for an almost cost-neutral sector coupling, however, is a high standard on energy efficiency of the buildings.

CONCLUSION

Improving the framework conditions for energy-efficient building refurbishment

Sector coupling in the heating sector does not need to have a negative impact on the energy costs of private consumers under certain conditions. Since sector coupling can only be implemented in energy-efficient buildings in a cost-neutral manner, the legal framework for energy-efficient building refurbishment must be significantly improved in order to achieve a successful energy transition. This is the only way to prevent private consumers from rising energy costs, again.

** The Federal Government must significantly improve the framework conditions for implementing energy-efficient building refurbishment for private consumers in order to achieve the climate protection targets.

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