

# Electricity Price Dependency of German Industrial Sectors and Exemption from the “EEG-Apportionment”

Ralf-M. Marquardt  
Westfälische Hochschule, August-Schmidt-Ring 10, D-45665 Recklinghausen  
0049-2361-915-450, [ralf-michael.marquardt@w-hs.de](mailto:ralf-michael.marquardt@w-hs.de)

## Overview

The expansion of renewable energies in Germany has successfully been forced by guaranteed and usually the market's price exceeding tariffs for the plant operators. The difference between the tariff payments and the sale on the market has been financed by a nationwide, standardized “EEG-Apportionment”. To protect energy intensive sectors from unilateral distortions of competition, these industries have in parts, or even totally been exempted from the apportionment. This exception is seen controversially in Germany. Furthermore, it is currently subject of an EU aid procedure. This paper discusses the issue of a “Green Electricity Leakage” in general and it quantifies the degree to which protected sectors recently realize a price reduction. The main focus however lies on the evaluation of direct and indirect cost effects in the different German economic sectors resulting from a rise in electricity prices. In order to identify those sectors, which still need protection, these findings are finally combined with the sectors' exposures to international competition.

## Methods

Regarding the cost effects of increasing electricity prices, a differentiation between two different kinds of transmission channels has to be carried out. On the one hand the input of electricity influences the production cost directly. On the other hand the input of further intermediate goods will cause additional, indirect cost effects, since the increase in electricity prices will be passed on to the prices of these goods as well. Although these indirect effects seem to be quite relevant, they have usually been neglected in comparable studies. In order to analyze the interdependence within the process of cost and price formation holistically, the evaluation is carried out by means of a price model based on official German input-output data of 71 sectors. The sector-specific exposures to international competition are measured by a well-established indicator of the trade intensity using the input-output data, too.

## Results

As a result of several legal exemptions, Germany's energy intensive industry is facing only a moderate increase in electricity prices due to the turn-around in German energy policies. This applies all the more to the “EEG-Apportionment”. However, with respect to the sensitivity to an increase in electricity prices in general, 16 sectors can be identified with above-average cost effects as well as an above-average exposure to international competition. The calculated differences between direct and indirect cost effects are remarkable. Nevertheless, this differentiation does not significantly alter the burden ranking between the sectors.

## Conclusions

Although the German energy intensive industry has been lobbying against the financial burden resulting from the expansion of renewables for a long time, there are only limited indications for the existence of such a burden, yet. However, comparable to the EU's argument of the “Carbon Leakage” for some sectors, these exceptions are entirely reasonable.

## References

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