ECONOMIC IMPACTS OF THE GERMAN ENERGY TRANSITION

INVESTMENTS IN RENEWABLE ENERGY GENERATION

In 2014, investments in renewable energy generation amounted to 18.9 bn EUR, up from 15.7 bn EUR in 2013. Almost 2/3 of the investments went into wind energy. The graph below (in German) shows the rise of wind (blue) and the surge of solar PV investments from 2008 to 2014. Offshore wind is not listed separately, so it is noteworthy that a considerable share of the increase in wind investments is attributed to offshore installations.

![Graph showing investments in renewable energy sources from 2008 to 2014](image)

Quelle: Bundesministerium für Wirtschaft und Energie nach Daten des Zentrums für Sonnenenergie- und Wasserstoff-Forschung 04/2015

Maintenance and repair of existing renewable energy installations amounted to 6.5 bn EUR in 2014. In most recent 2015 data, investments decreased to 14.5 bn EUR (with 36% onshore wind and 31% offshore wind), but maintenance and repair increased to 14.7 bn EUR, i.e. a total of 29.2 bn EUR.

INVESTMENTS IN THE ELECTRICITY GRID

Grid expansion and grid update investments amounted to 4.7 bn EUR in 2014. In addition, 3.2 bn EUR went into maintenance and repair of the existing grid. A large share of the grid expansion and grid update investments can be attributed to the growth of renewable energy sources in Germany.

INVESTMENTS IN ENERGY EFFICIENCY IN BUILDINGS

In the residential sector, investments in energy efficiency amounted to 34.8 bn EUR in 2014, similar to the 35.4 bn EUR in 2013. In addition, 17.5 bn EUR were invested in energy efficiency for non-residential buildings in 2014, compared to 17 bn EUR for the same category in 2013.

ENERGY EFFICIENCY EXPORTS

Exports of energy efficiency technology exceeded imports by about 5 bn EUR in 2014.
AVOIDED ENERGY IMPORTS

Fossil energy imports were at 93.9 bn EUR in 2013 and went down to 80.5 bn EUR in 2014. Of course, the global energy prices influence this value as well as the overall volume. Modelling by GWS, DLR, ISI, DIW, Prognos (2015) indicates that the net imports avoided due to renewable energy development amounted to 8.8 bn EUR in 2014. Total saving due to energy efficiency amounted to 22.2 bn EUR in 2014.

EMPLOYMENT LINKED TO RENEWABLE ENERGY

In 2014, about 355,000 people were employed across all sectors due to the renewable energy strategy in Germany. About 60% of the total are attributed to new installations. Maintenance and repair is growing over time and now accounts for 19%. Export-related employment represents about 27%.

Wind is the largest employer and has the highest growth rates (roughly 150,000 employees in 2014). Solar has seen a significant decline since 2012 and is now at about 50,000 jobs. Biomass is stagnating at about 120,000 jobs.

Employment in energy efficiency is much higher and was at 848,000 jobs in 2013 according to the German Industry Initiative for Energy Efficiency, basically creating a new economic sector for the economy.

VALUE ADDED AND TURNOVER

In 2014, sales of renewable energy technology manufactured in Germany amounted to 21.8 bn EUR, more than half from onshore wind energy.

MORE INFORMATION

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