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Zentrum für Sonnenenergie- und Wasserstoff-Forschung Baden-Württemberg (ZSW)

Site: Meitnerstr. 1, 70565 Stuttgart

ZSW and BDEW on renewable energies' share of electricity consumed in the first half of 2017

Germany: Renewables Cover 35 Percent of Demand for Electricity

Main power sources: Onshore wind (39 billion kWh), biomass (23 billion kWh) and solar (22 billion kWh)

Electricity generated from the sun, wind and other regenerative sources of energy accounted for 35 percent of Germany's consumption in the first half of 2017. It was the first time that mark had been reached. The Centre for Solar Energy and Hydrogen Research in Baden-Württemberg (ZSW) and the German Association of Energy and Water Industries (BDEW) arrived at this figure in an initial assessment. Renewable energies' share was thus up two percentage points from the previous year's period.

Accounting for 39.4 billion kWh (kilowatt hours), onshore wind power was yet again the top source of green electricity (first half of 2016: 34.7 billion kWh, growth: 13.6 percent). Offshore wind power saw the steepest growth, increasing by 47.5 percent to 8.8 billion kWh (first half of 2016: 5.9 billion kWh). The amount of power sourced from biomass increased by 2.2 percent from 22.7 billion kWh to 23.2 billion kWh. Photovoltaic systems generated 21.9 billion kWh of electricity, an increase of 13.5 percent (first half of 2016: 19.3 billion kWh).

"Renewable energies' increased contribution is gratifying. Unfortunately, the necessary grid expansion is not keeping pace with the growth in regenerative plants because of all the time lost to political debates. Grid expansion and the expansion of renewables have to be far more closely linked and better meshed to reduce the enormous costs of stabilizing networks. On top of that, we will not be able to do without conventional power plants as a backup for secure power supply," said Stefan Kapferer, Chairman of BDEW's General Executive Management Board, today in Berlin.

Prof. Frithjof Staiss, Managing Director of the ZSW, adds, "The good news from the electricity sector notwithstanding, the important thing is to continue developing the power supply as a whole in a reliable, affordable and environmentally sound way, and advancing the *Energiewende* [Germany's exit from nuclear power and fossil fuels and transition to renewables] on the political and social fronts. And let's not lose sight of energy efficiency as a core component. The math is

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simple enough: Energy that is not needed does not need to be generated."

Hydroelectric power dropped by 18 percent to 9.4 billion kWh (11.5 billion kWh) and municipal solid waste (50 percent biogenic) was up 5 percent to 3.0 billion kWh (2.9 billion kWh), while geothermal energy dropped by 7 percent to 0.078 billion kWh (0.084 billion kWh).

The Zentrum für Sonnenenergie- und Wasserstoff-Forschung Baden-Württemberg (Centre for Solar Energy and Hydrogen Research Baden-Württemberg, ZSW) is one of the leading institutes for applied research in the areas of photovoltaics, renewable fuels, battery technology, fuel cells and energy system analysis. There are currently around 230 scientists, engineers and technicians employed at ZSW's three locations in Stuttgart, Ulm and Widderstall. In addition, there are 90 research and student assistants.

Media contacts

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Pictures and a fact sheet on ZSW are available from:

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