

## Germany's Energy Talk

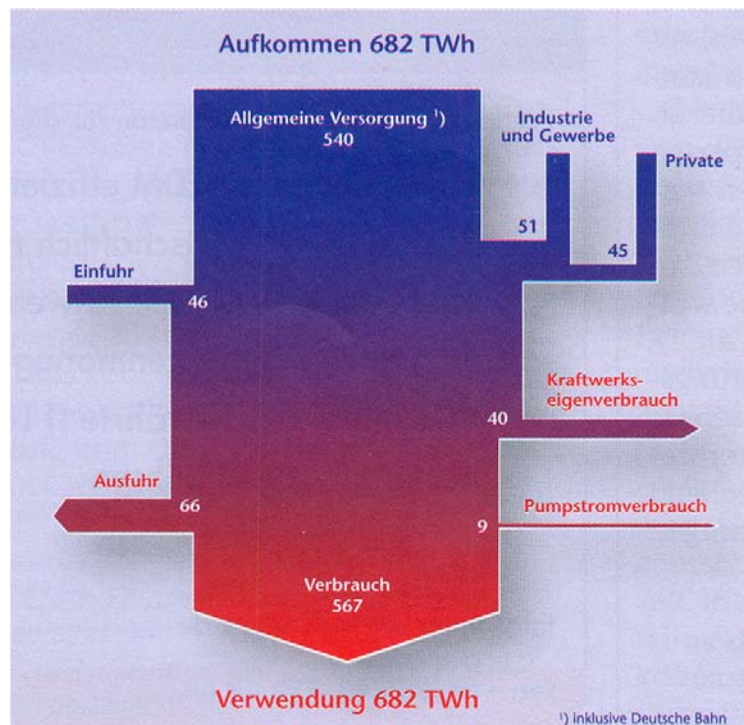
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### The power supply and consumption Sankey Diagram – Graph 3

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Let us discuss a graphics literally translated the “Balance of Electrical Work” of the entire power supply in Germany. The blue part of the Sankey diagram starts with the power supply by the public utilities and railway. Added as input side streams are the supply by captive power plants in industry, commerce and private small suppliers such as operators of renewable energy systems or wind parks. The total electrical input in Germany was therefore 682 TWh in 2006. About 540 TWh were provided by public utilities and the railway. The private sector contributed 45 TWh, commerce and industry 51 TWh. About 46 TWh were imported. Consequently 682 TWh were available in Germany in 2006. The red lower part of the Sankey diagram shows the

consumption that in a balanced statistics must also sum upto 682 TWh. Remember, mankind can neither destroy nor generate energy. The consumption of customers outside of the “fence” of the power generators where 567 TWh. This includes the technical losses of the transmission and distribution network as a “consumer”. In addition the following smaller consumption side streams are



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shown. Station use i.e. the own consumption inside the “fence” of a power plant was 40 TWh. For pumped storage 9 TWh were used and export amounted to 66 TWh. In other words availability of 682 TWh equals consumption of 682 TWh. At least this makes the statisticians happy, but requires a lot of diligent data collection and a technical committee in place which permanently and continuously improves data collection and validation.