

The European “Energy Transition” Revisited

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There is worldwide consensus to reduce energy consumption and emissions of greenhouse gases in the atmosphere. The ‘energy transformation’ is surely one of the most important challenges of the 21st century. Correct planning and thorough insight into the complexities of energy systems are an absolute necessity before starting such a task, in order to avoid unnecessary disruptions in the economy and daily life of the citizens.

The European Union has ambitious plans in this direction for the coming decades. However, there is no simple answer to the best way forward. In the electricity sector emphasis is currently put on massive developments in renewable systems (wind, solar, hydro, biomass,...). As wind and solar are main components, the consequences of the intermittency need to be fully understood. Important components for a green electricity system dominated by intermittent sources are still lacking and developing these is challenging and will take time. Therefore it is not justified to eliminate any of the non-renewable options in near future and future electricity policies.

The plans of the EU need also to be shaped in the context of worldwide greenhouse gas emissions and estimated future world energy needs. The effectiveness of green electricity policies implemented in the EU so far will be discussed using the example of the Germany.

A last but very important remark is about the information for the general public. Unfortunately, the quality of public and political discussions on this subject is a matter of great concern, as these frequently lack reference to realistic numbers, or use numbers very selectively. Even worse, critical discussions are very often simply ignored or rebuffed with unfounded black and white arguments. Given the importance of sufficient and high quality energy sources for the welfare of all citizens on this planet in the future, there is an important role for education. This should be an important asset in order to arrive at a correctly defined and affordable sustainable future energy supply.