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System foresight at RWE: A multi-scale, sector-integrated approach

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Abstract

To prepare RWE for changes in the energy system, possible developments of the energy system need to be foreseen. Such system developments are driven by technological advancements, social aspects as well as the environmental and economic circumstances in the assessed region.

The system foresight activities at RWE expand on traditional approaches to energy system analysis.

Firstly, the activities assess energy systems at scales which range from the level of the individual household system to a global/international one. For selected scales, it has been analysed whether individual energy systems will exchange energy among each other, which ones will be energy-importing or energy-exporting and which energy technologies will be applied in them.

Secondly, all analyses are looking to find optimal solutions to the end-customers' needs which, in most energy systems, are naturally spread over all of the traditional energy sectors: electricity, mobility and heat.

We will present first analyses and findings.