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【35】 Substitution of Fossil Fuels with Renewable Energy

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On the example of Switzerland and the energy demand of 2019 the technical requirements and the economic consequences were analyzed for the transition from fossil fuels to renewable energy. The three energy systems based on electricity, hydrogen and synthetic fuels lead to the required photovoltaics for the electricity production and the size of the day/night and seasonal storage. The result is a completely electrified renewable energy economy is the most efficient and requires the installation of large storage capacities or the import of green hydrogen at least during the winter time.

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