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Energy Transition in Germany – The Way to a 100% Renewable Electricity Supply

Prof. Dr. **Volker Quaschning**

HTW Berlin – University of Applied Sciences

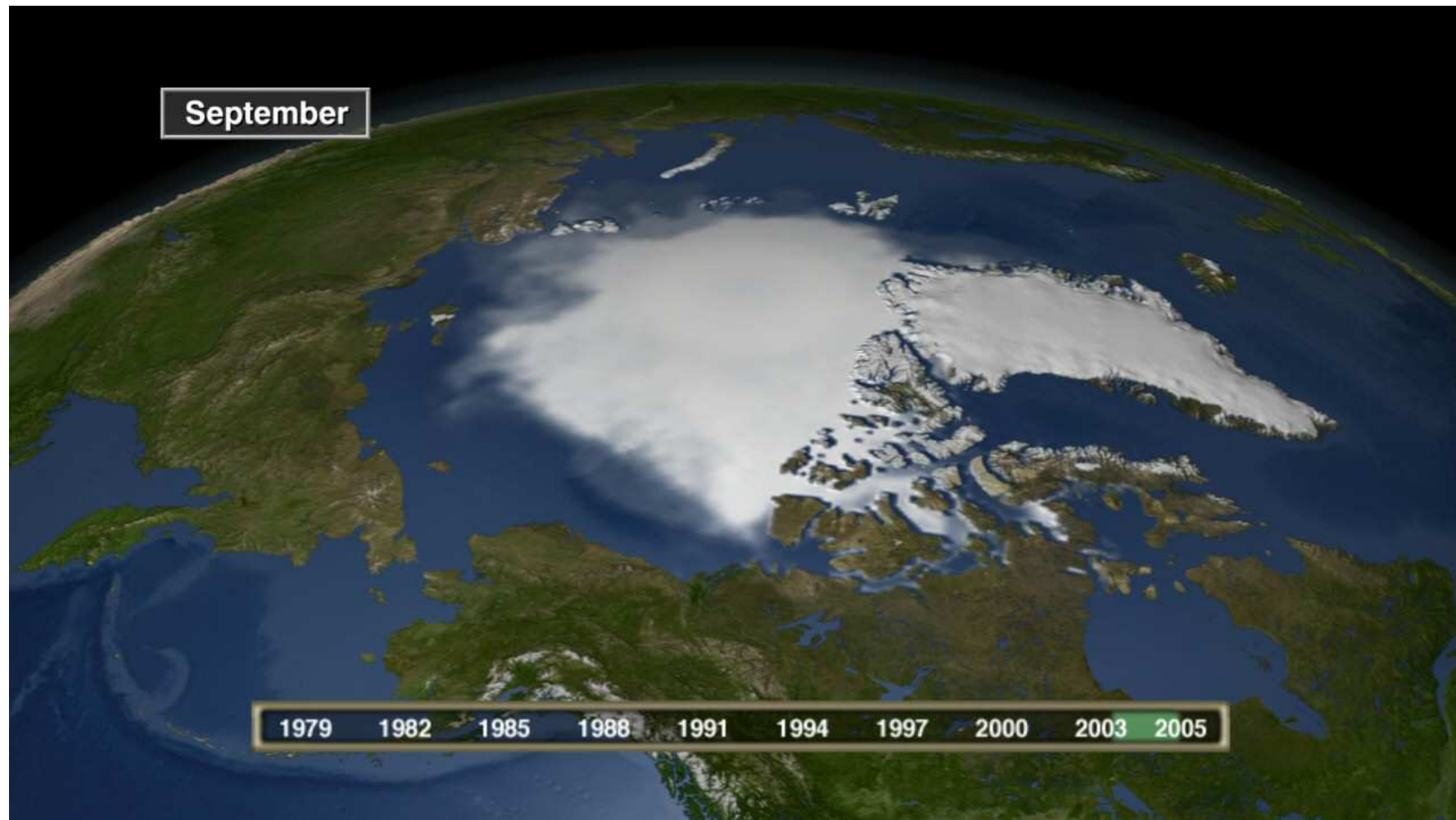
US Congress Longworth Building

March 12, 2012

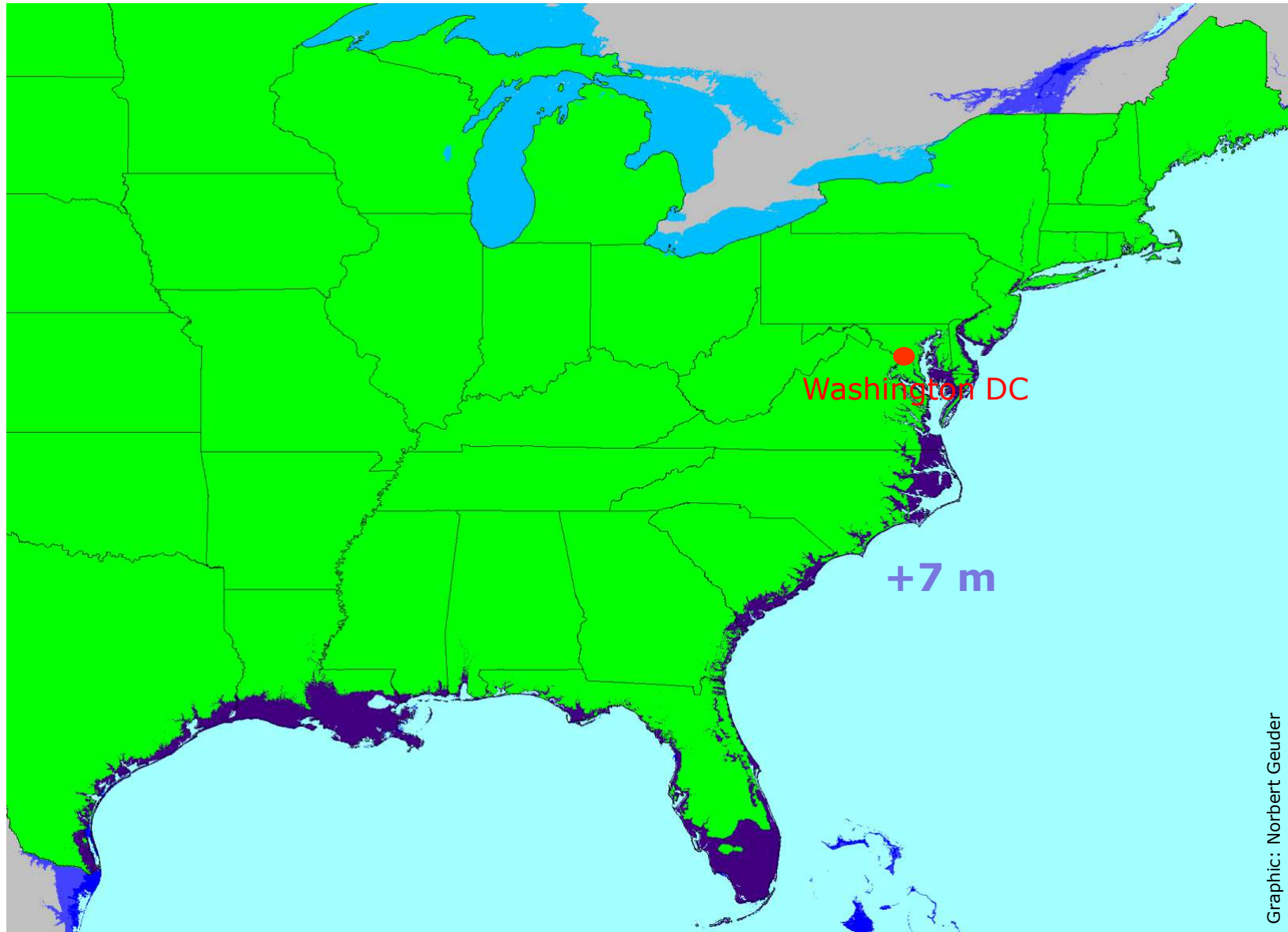
Washington DC



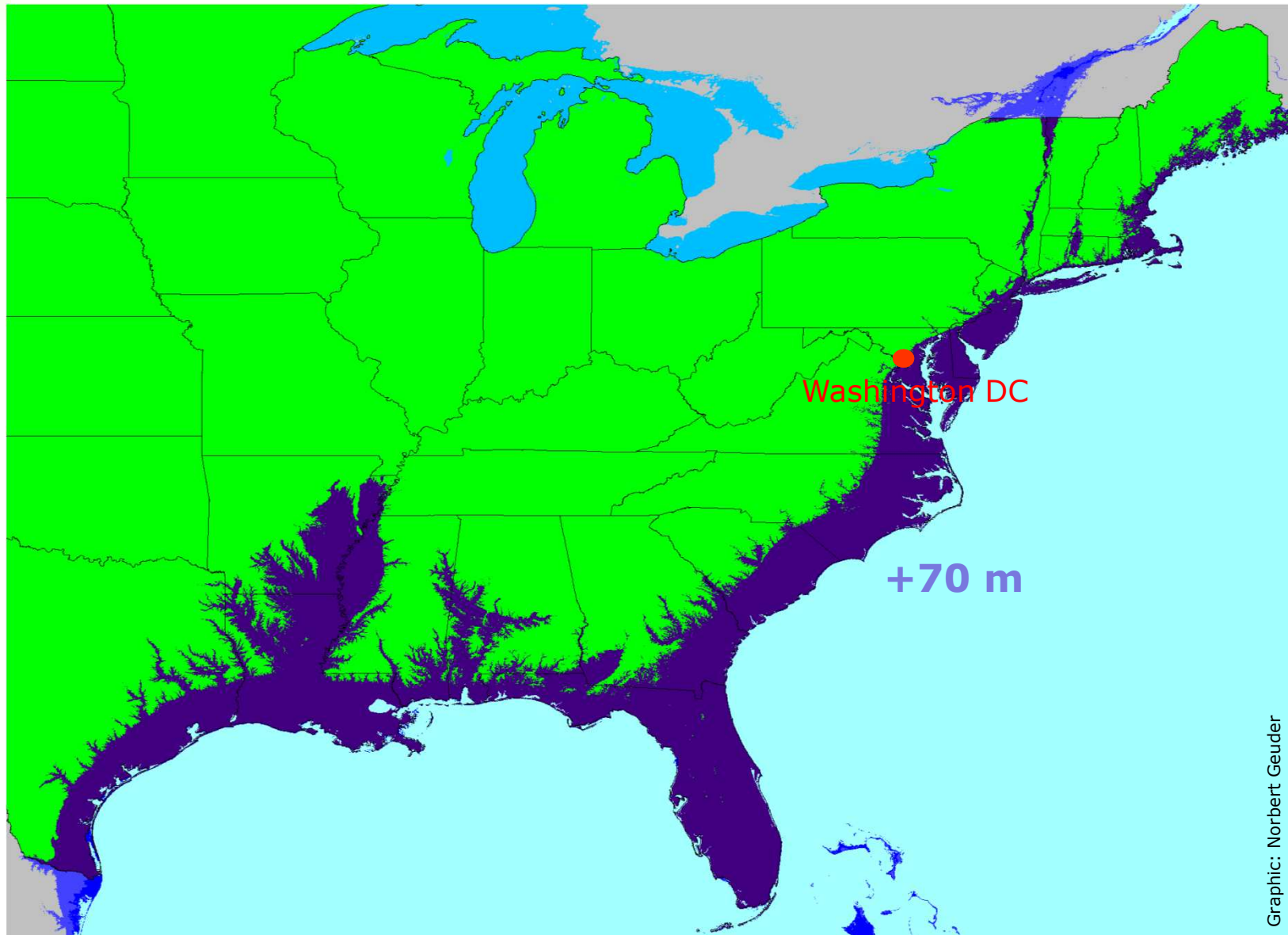
Source: NASA

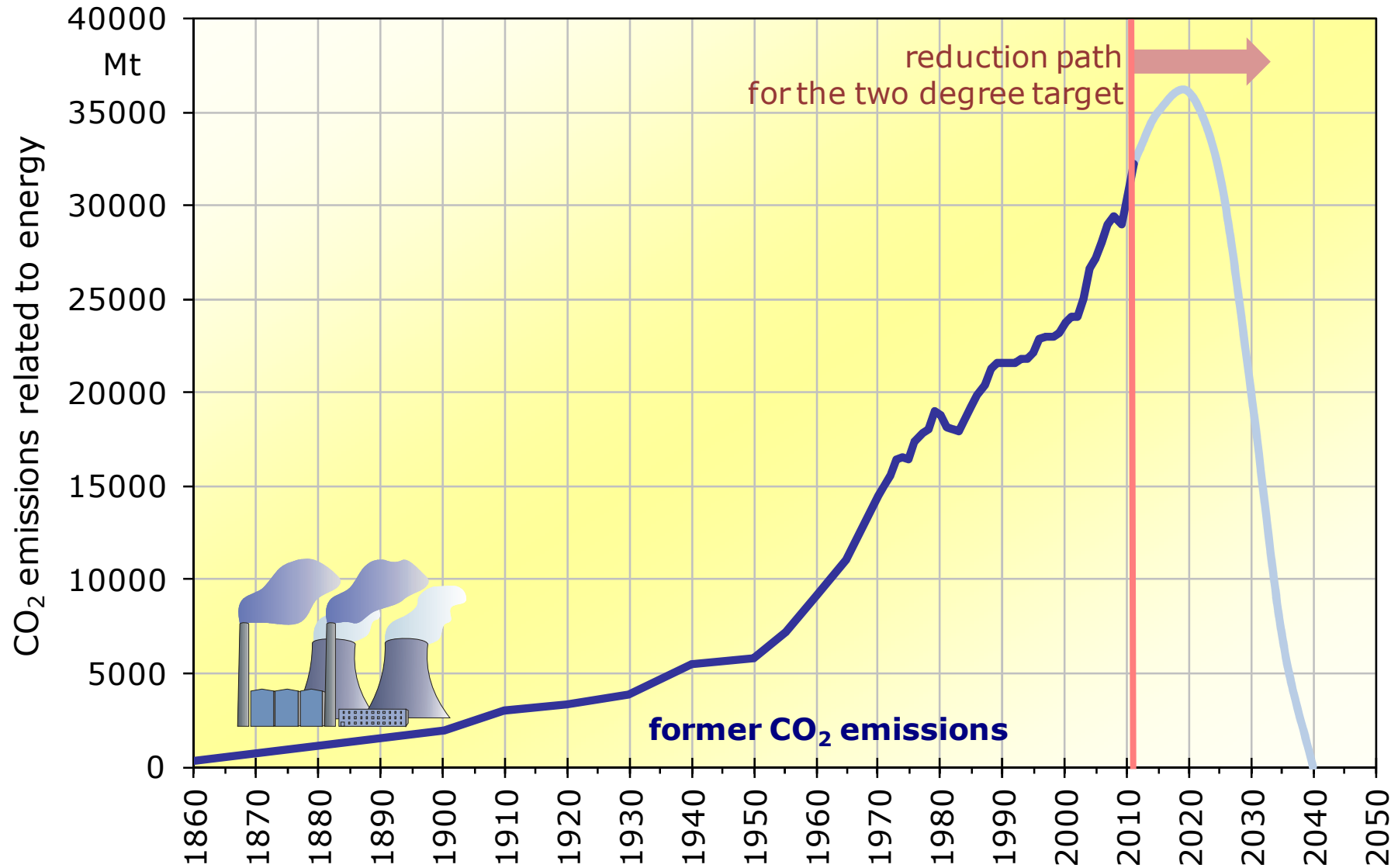


Source: NASA

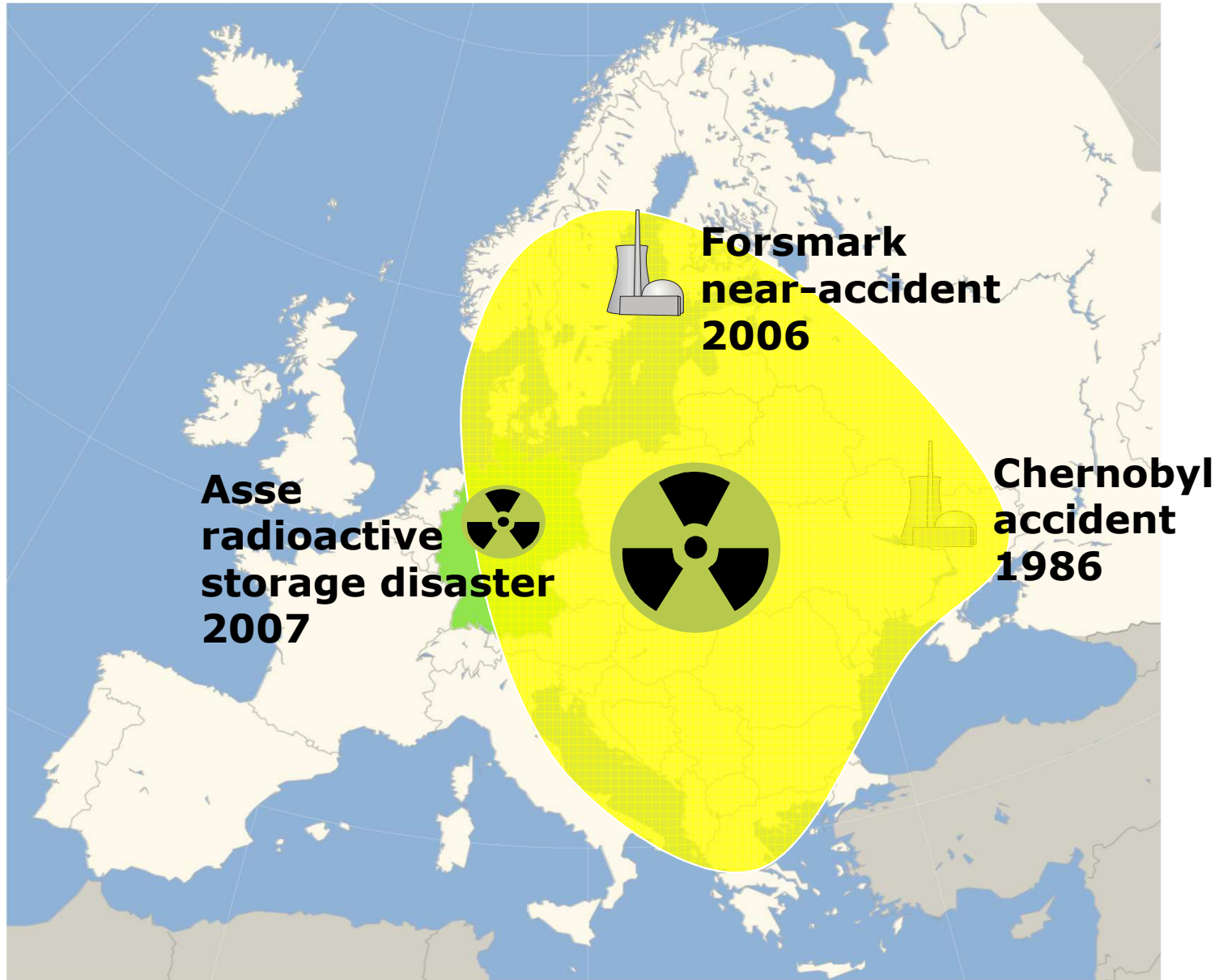


Graphic: Norbert Geuder

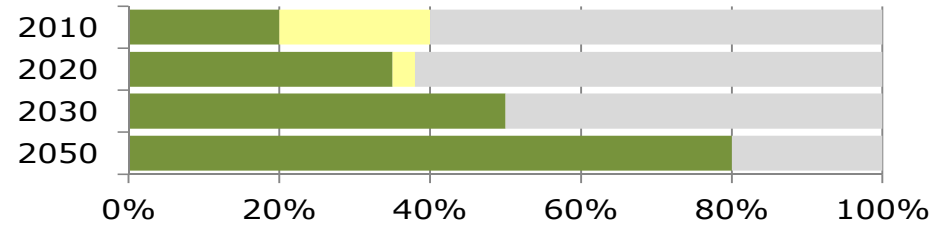




data: WRI, IEA, PIK-Potsdam

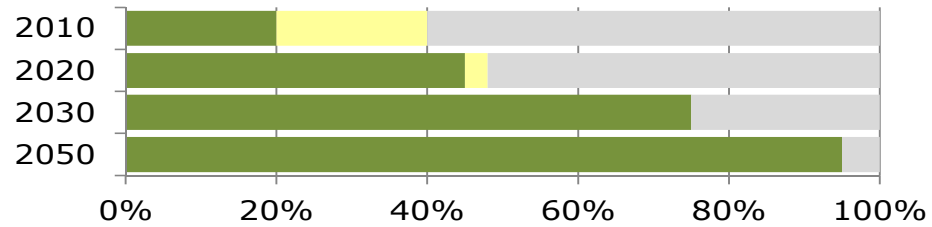


Federal Government

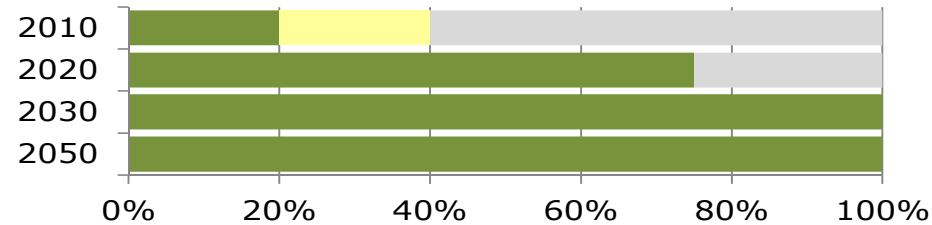


shutdown of nuclear power until 2022
>80% renewables until 2050

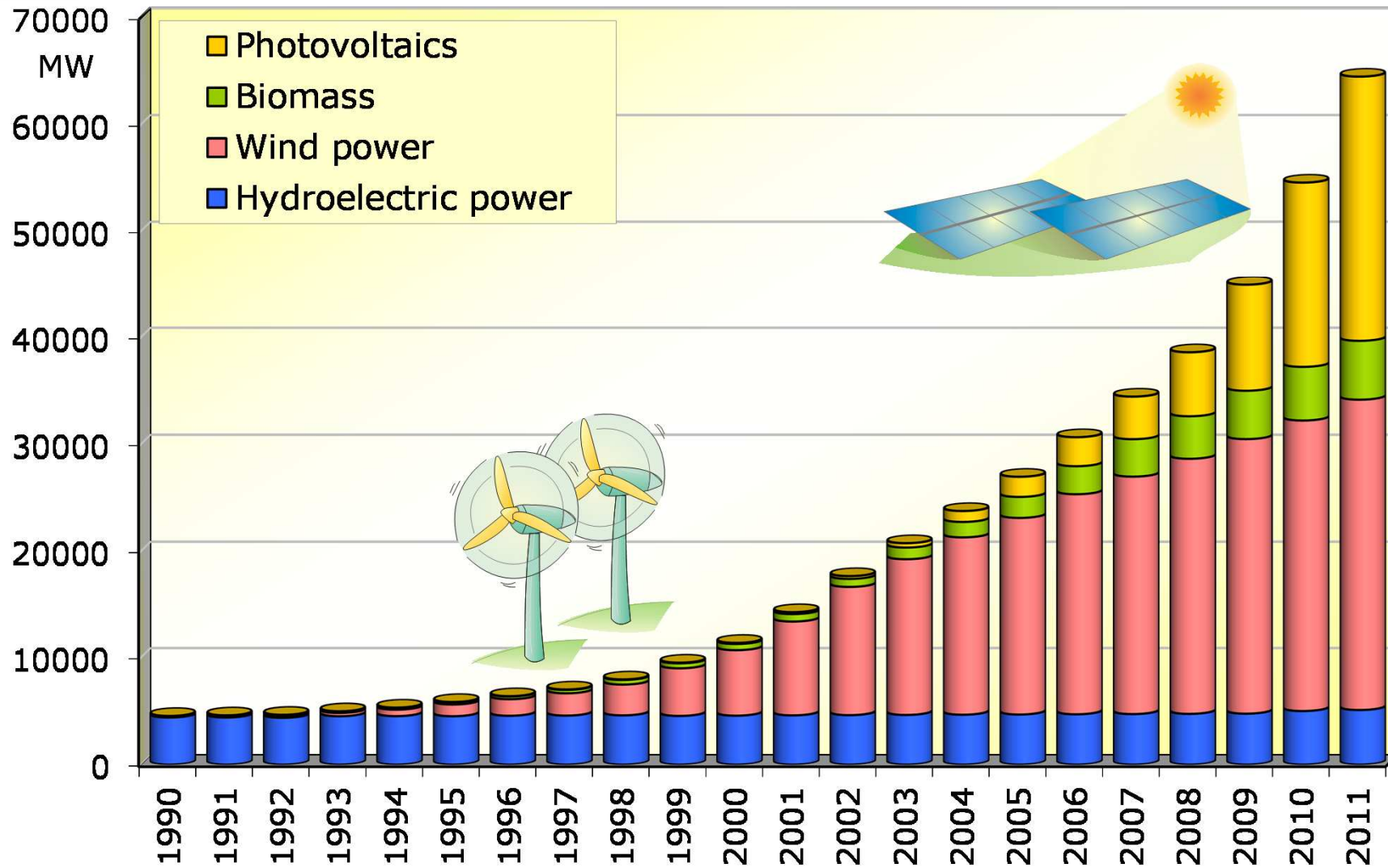
Opposition



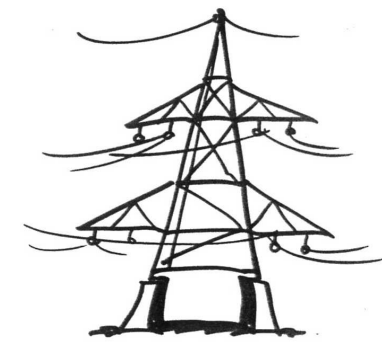
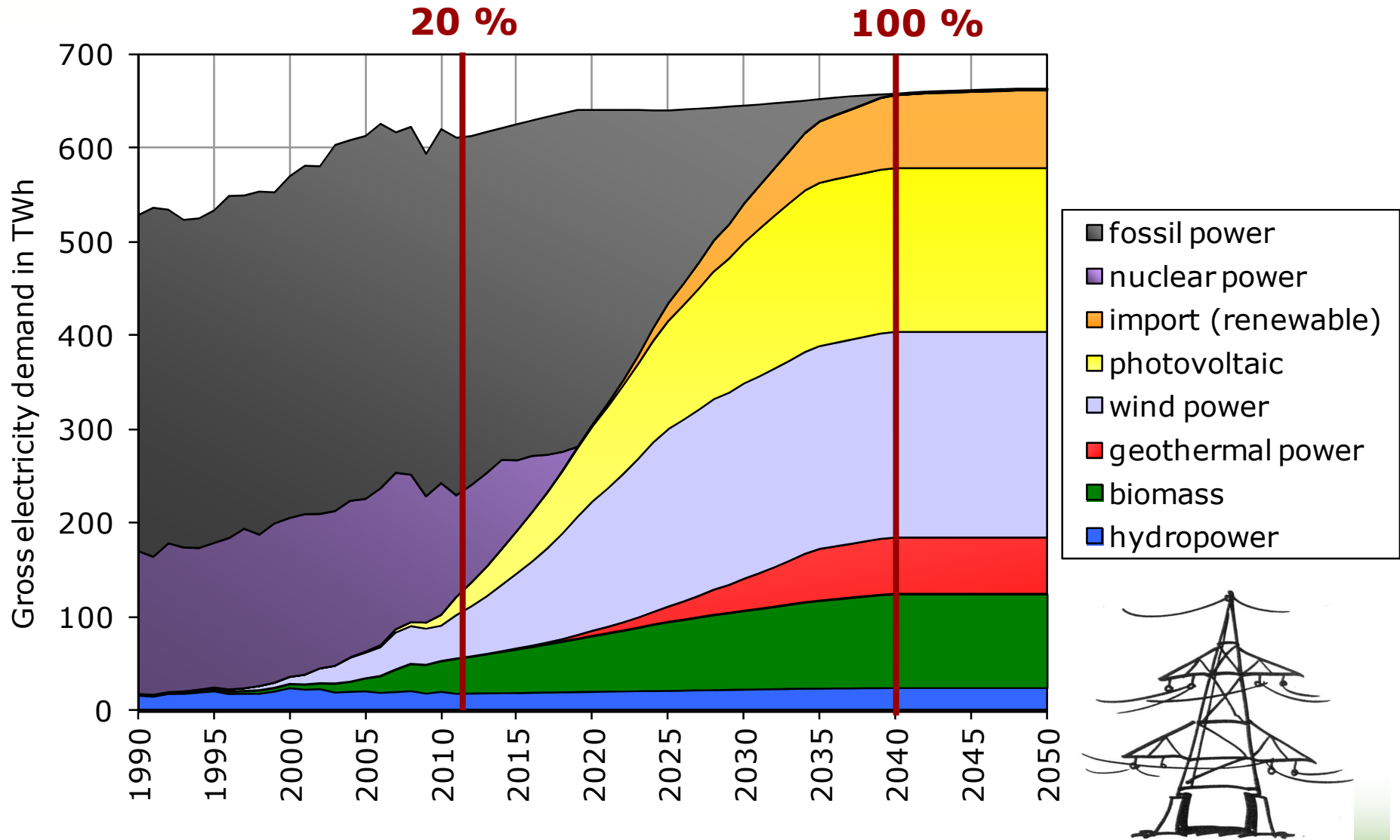
75% renewables until 2030



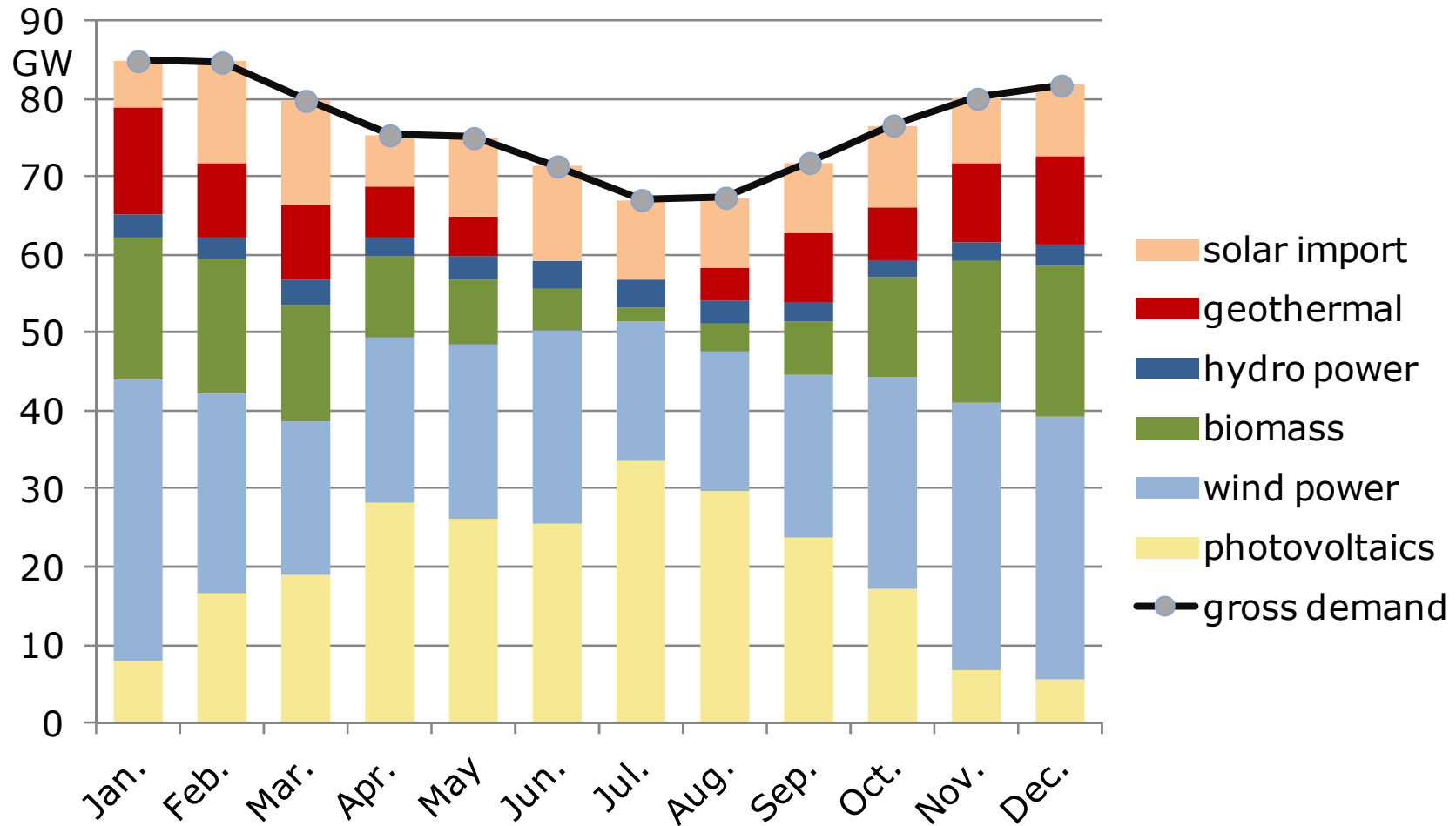
100% renewables until 2030

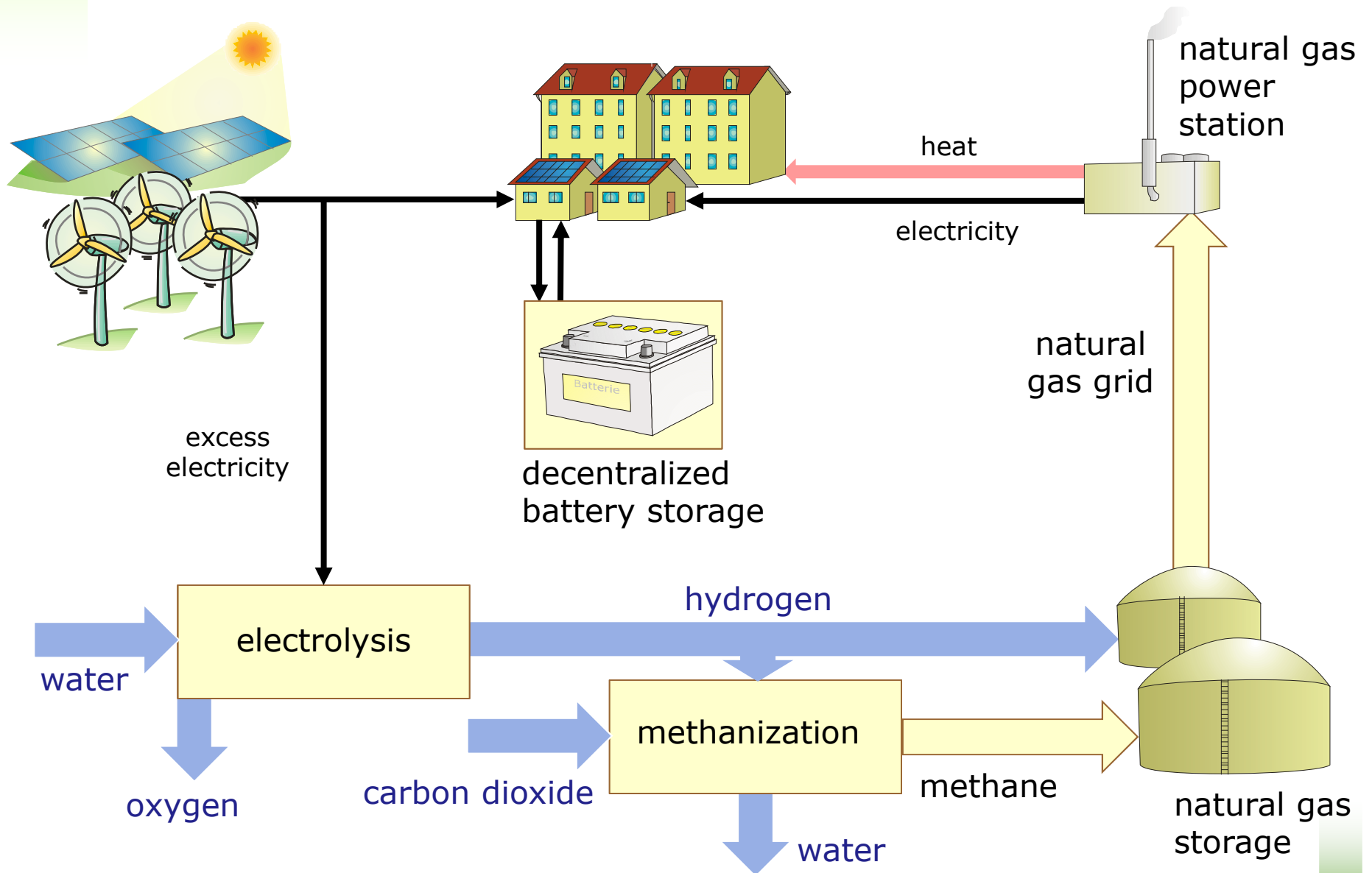


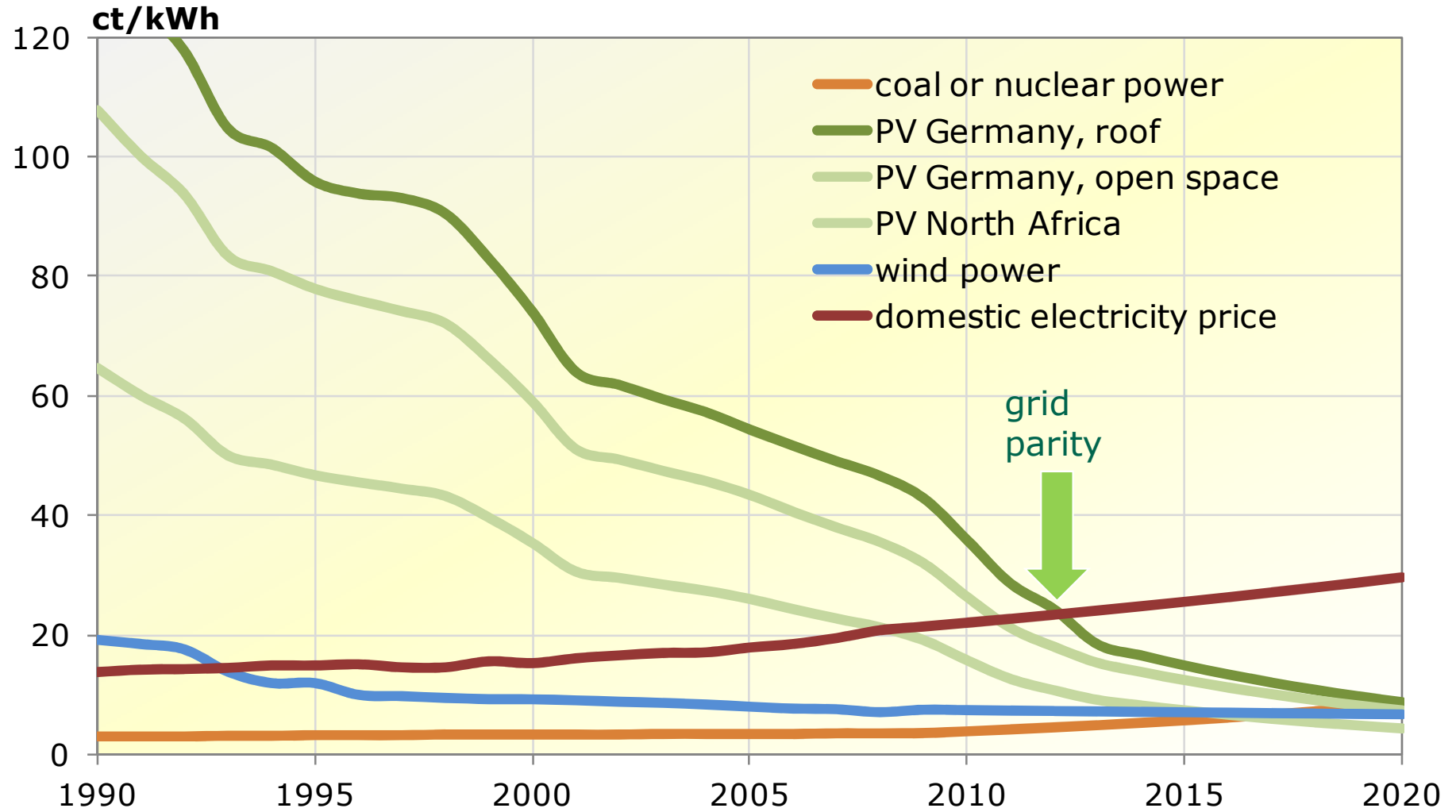
HTW scenario: climate protection and sustainable development



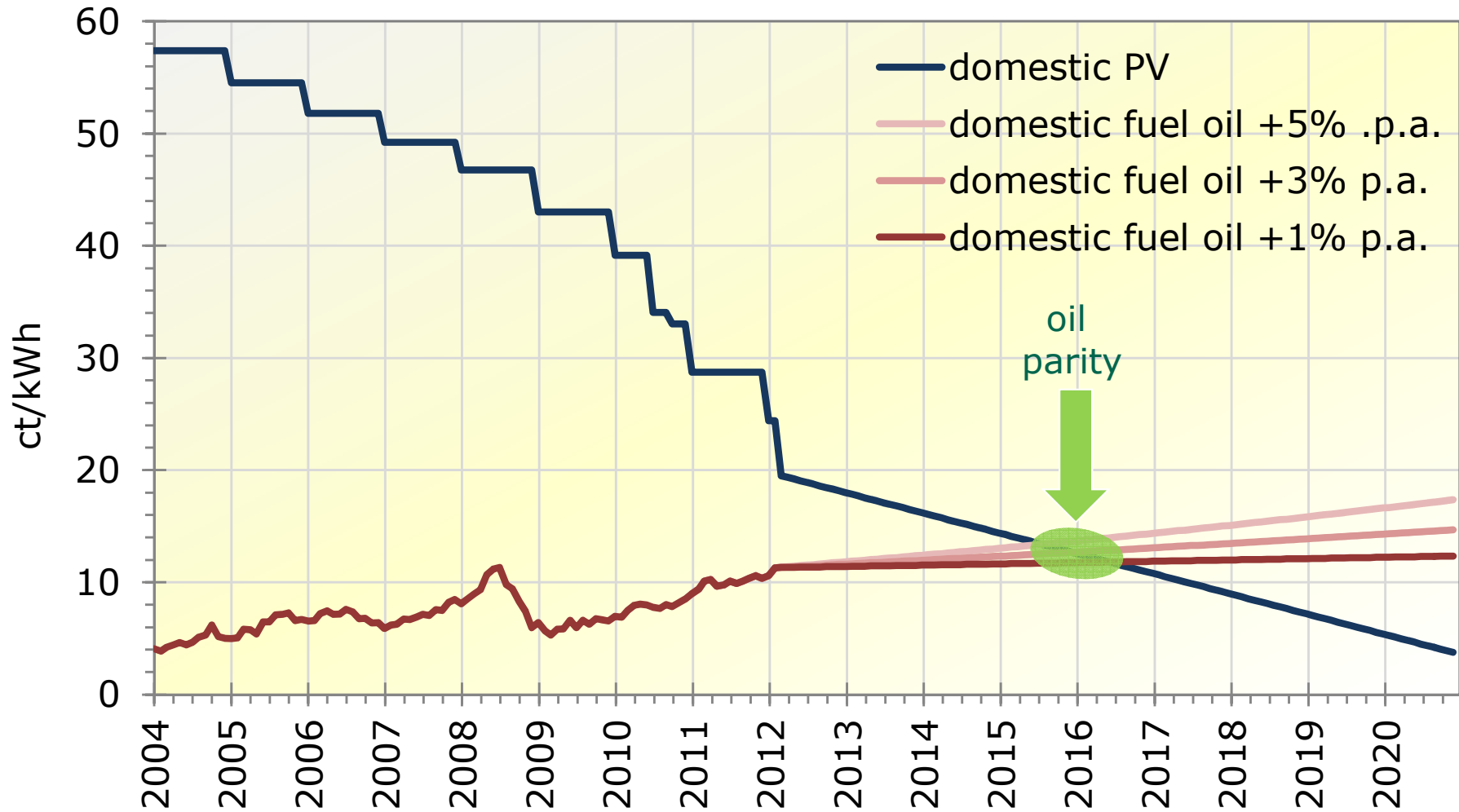
mean monthly power generation and demand





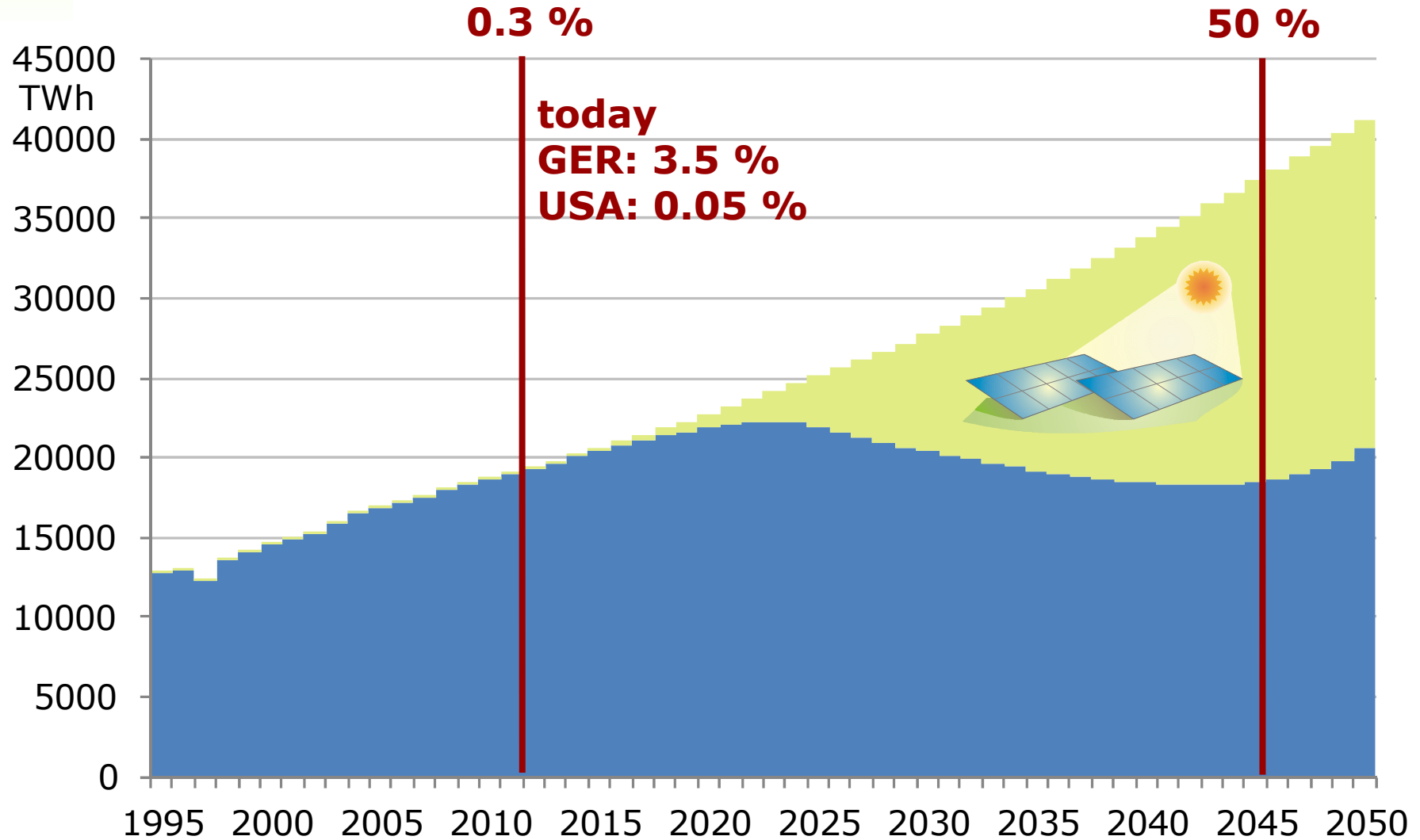


Assumptions: Boiler efficiency 80%, calorific value of fuel oil 10.5 kWh/l

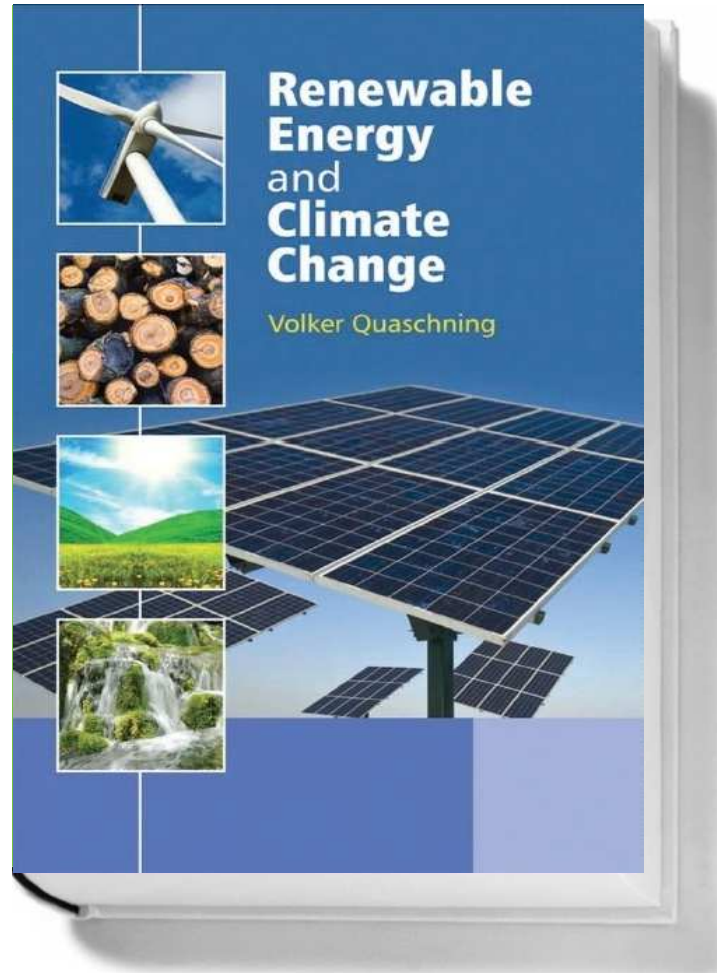


Expected Share of PV for the Global Electricity Supply

Assumptions: 30% market growth per year until 2025, then 550 GW p.a.



For further reading...



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