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Germany: successful energy transition model at risk?

Energy Citizens: empowering millions in the energy transition

24 May 2016

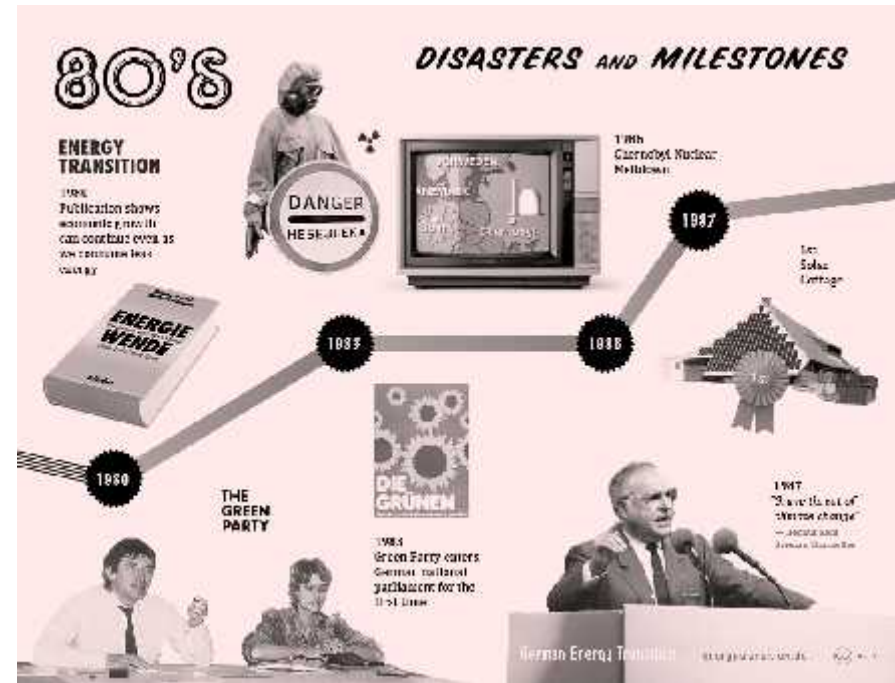
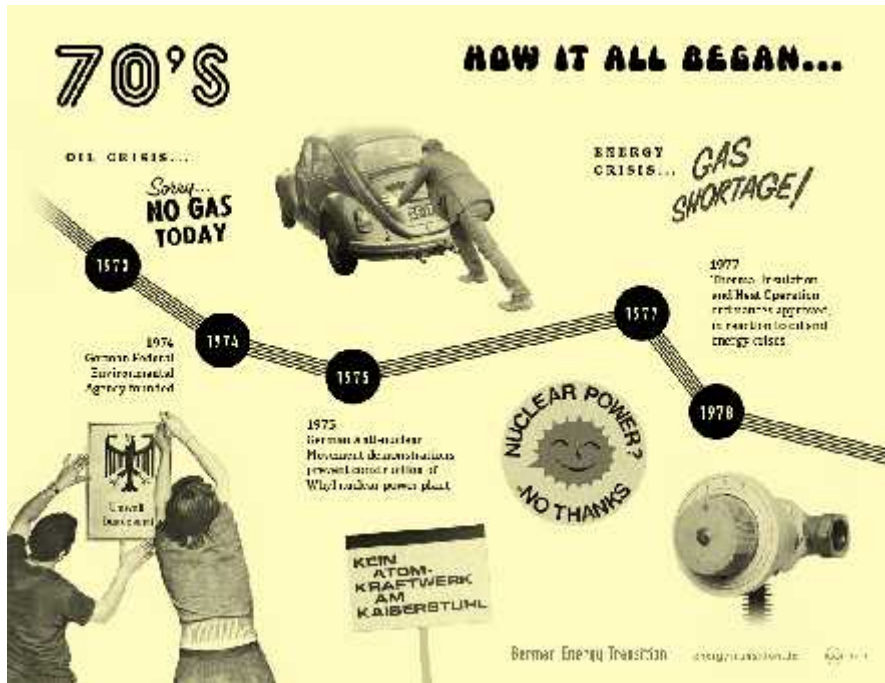
Dirk Hendricks

- EREF Senior Policy Advisor -

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The History of the „Energiewende“ (1 | 3)

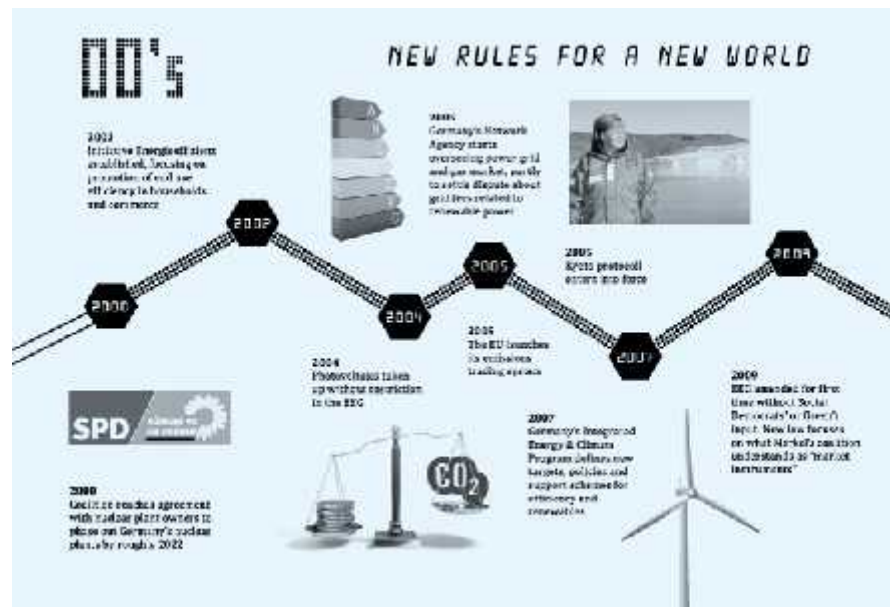
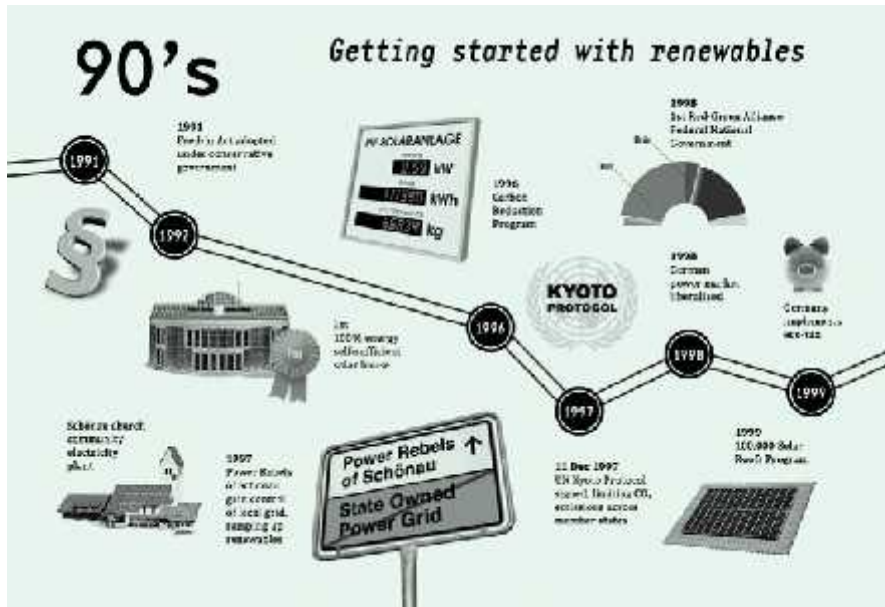


Source: Heinrich Böll Stiftung 2013; energie.wende.de

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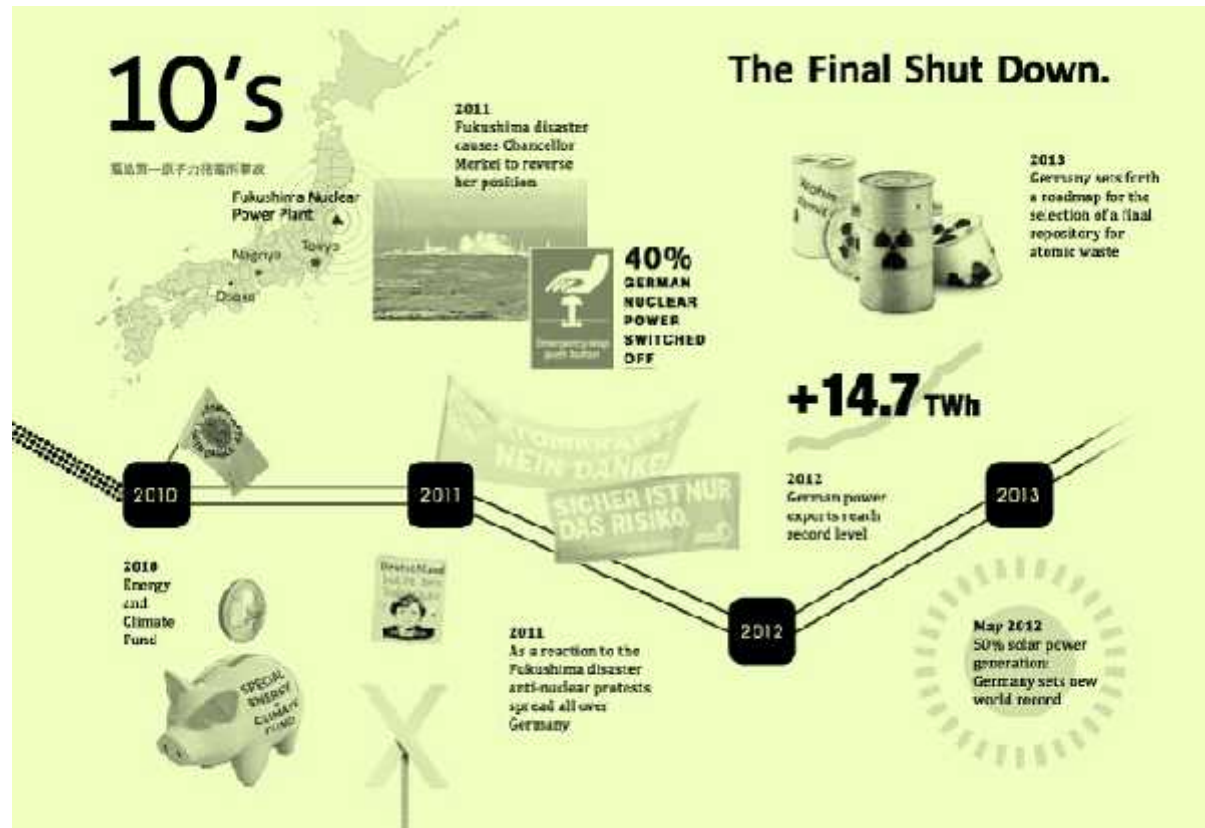
The History of the „Energiewende“ (2 | 3)



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The History of the „Energiewende“ (3 | 3)



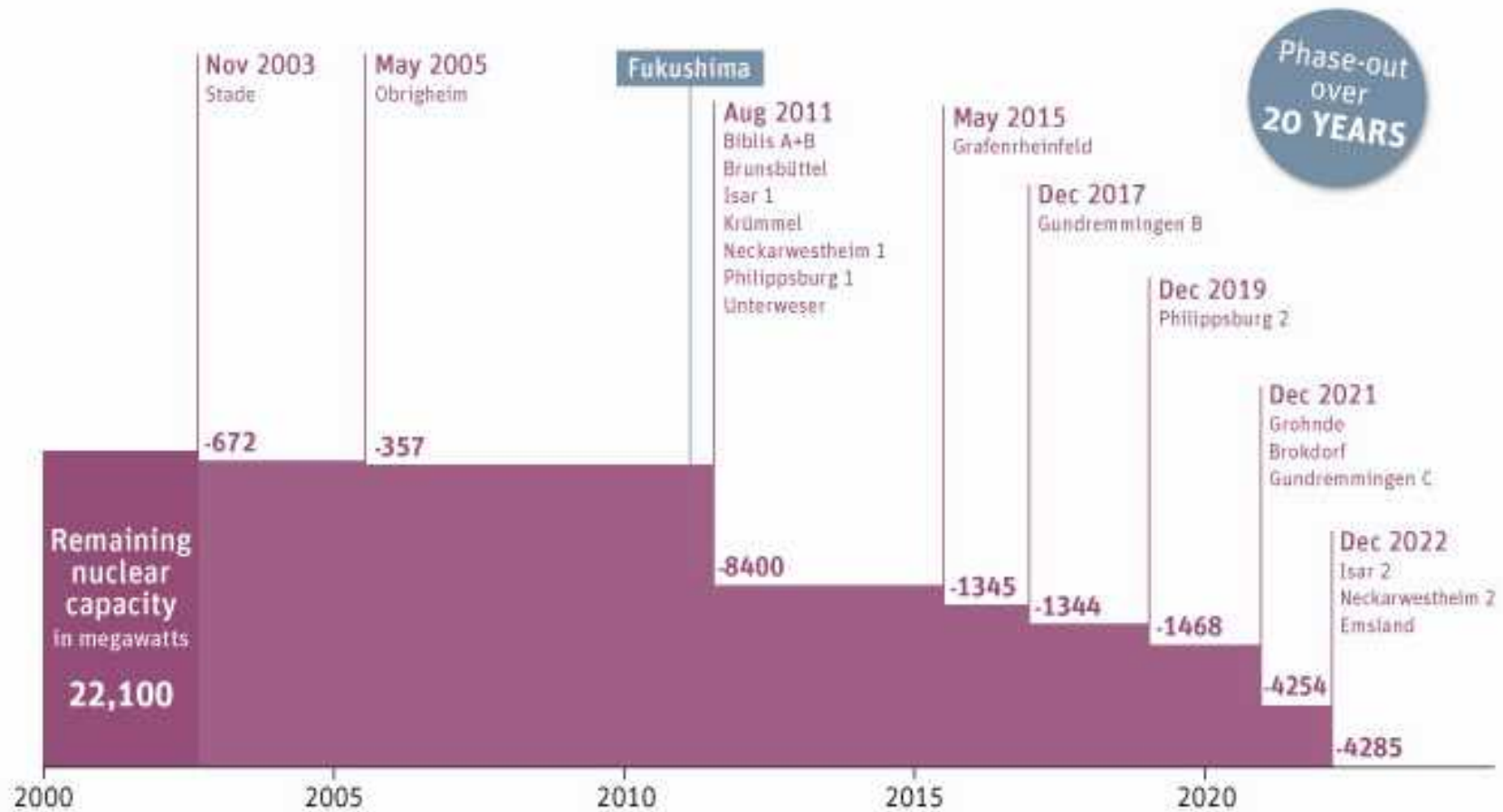
Source: Heinrich Böll Stiftung 2013; energytransition.de

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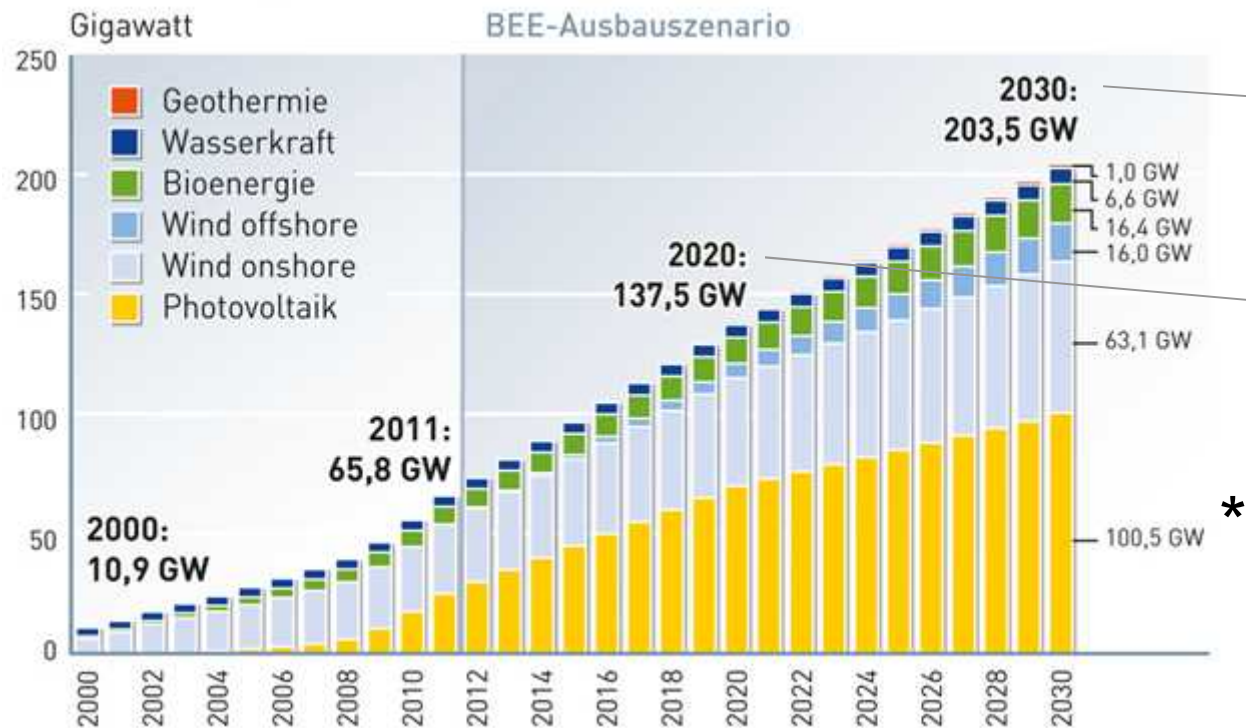
Germany is gradually shutting down all nuclear power plants

Declining nuclear energy installed capacity in Germany, 2000-2022



Source: Heinrich Böll Stiftung 2013, Institute of Applied Ecology, BMJ; energytransition.de

Forecast scenario of installed capacity for electricity generation from RES



equates
76 % of the
power consumption

equates
47 % of the
power consumption

*Stand Szenariorechnung PV- Goal BSW > 120 TWh
Quelle: BMU/AGEE-Stat, BEE Plattform Systemtransformation (Stand: 12|2012), AEE, www.unendlich-viel-energie.de

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Prerequisites for high RES share in Germany: the Renewable Energy Law (Erneuerbare Energien Gesetz, EEG)

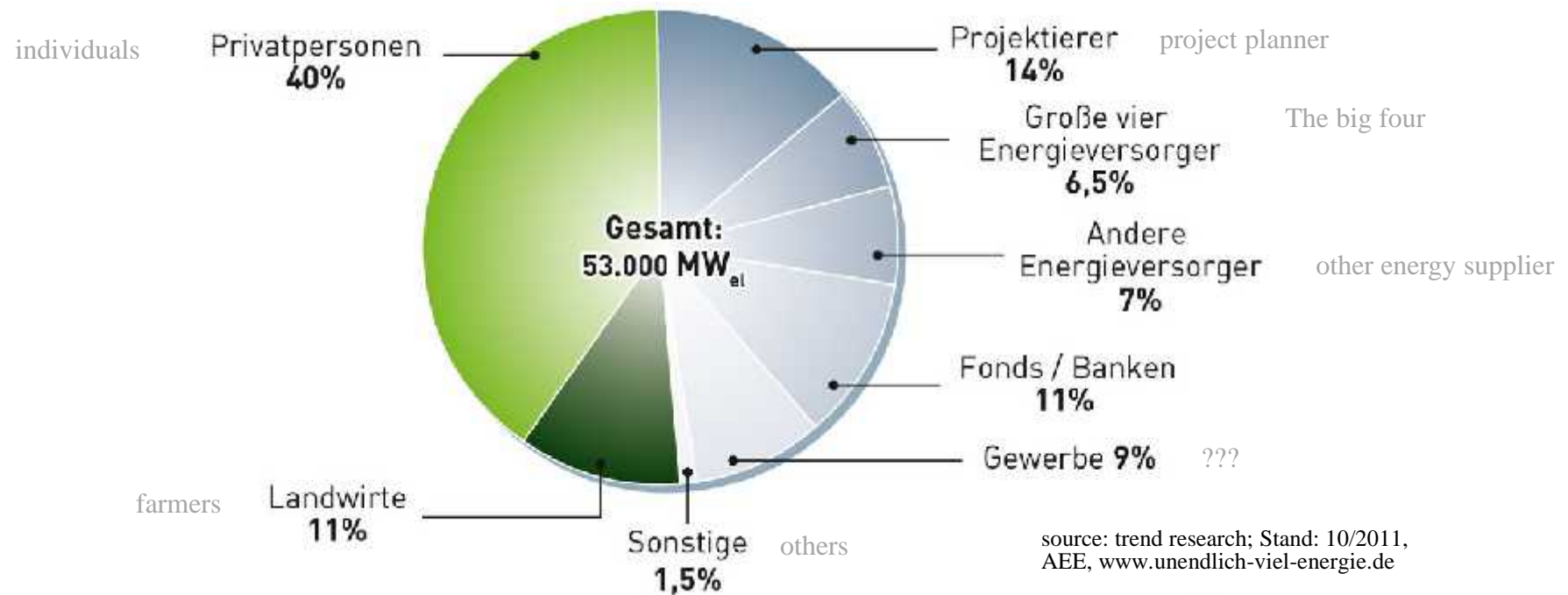


- Investment protection through
 - guaranteed technology differentiated feed-in-tariffs
 - Priority dispatch
- State budget-independent financial promotion (→ investment security)
- Degression of feed-in tariffs, applicable for new plants (→ Innovation and acceptance)



Half of the installed capacity of electricity generation from RES is in public hands

Distribution of the owner of the nationwide installed capacity for Electricity generation from RES installations 2010 (MW 53 000)



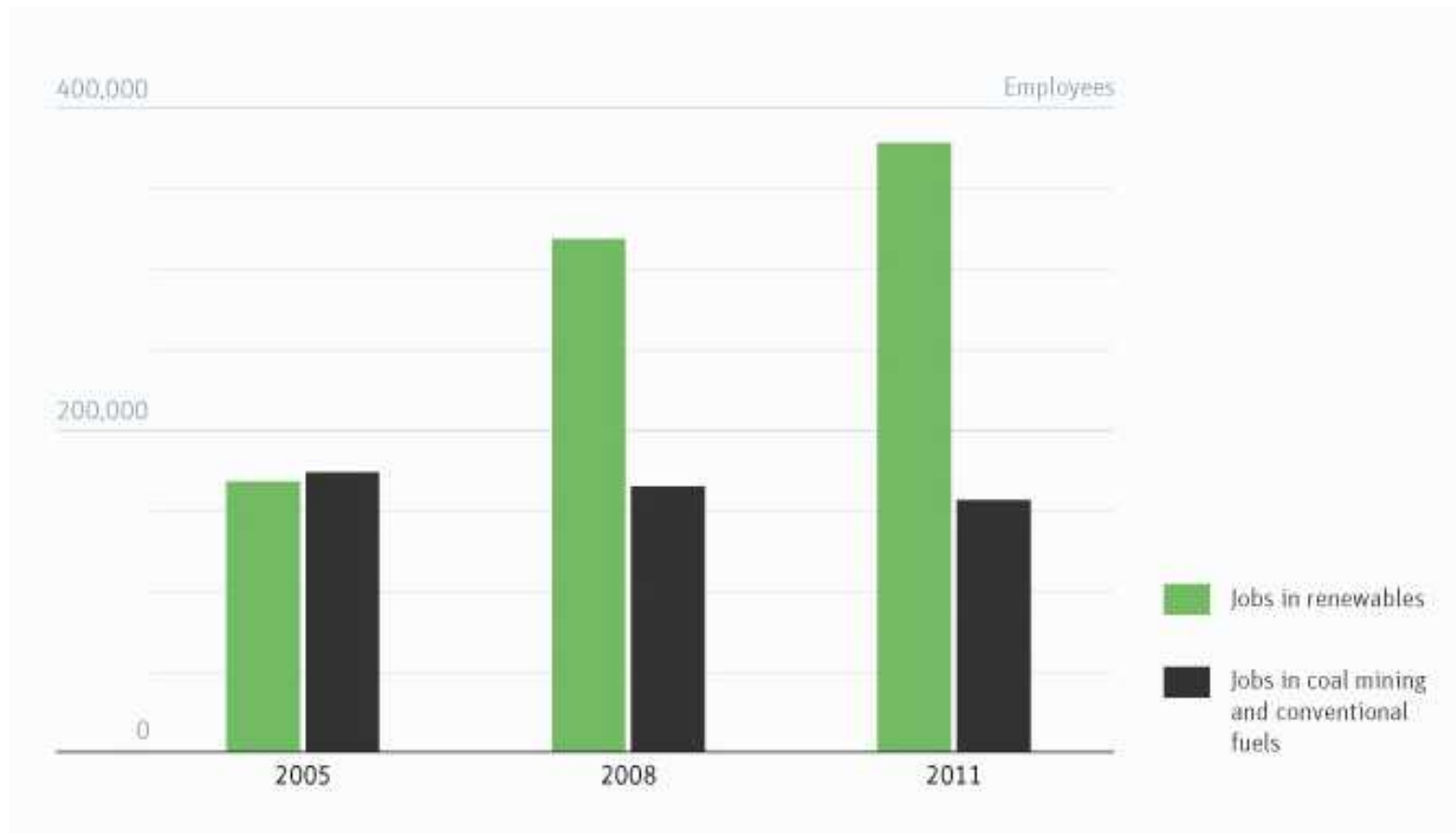
→ With the RES the variety of participants and the competition in Germany is rising

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RES create more jobs than conventional energy does

Employment in Germany in renewable and conventional energy sector, 2005-2011



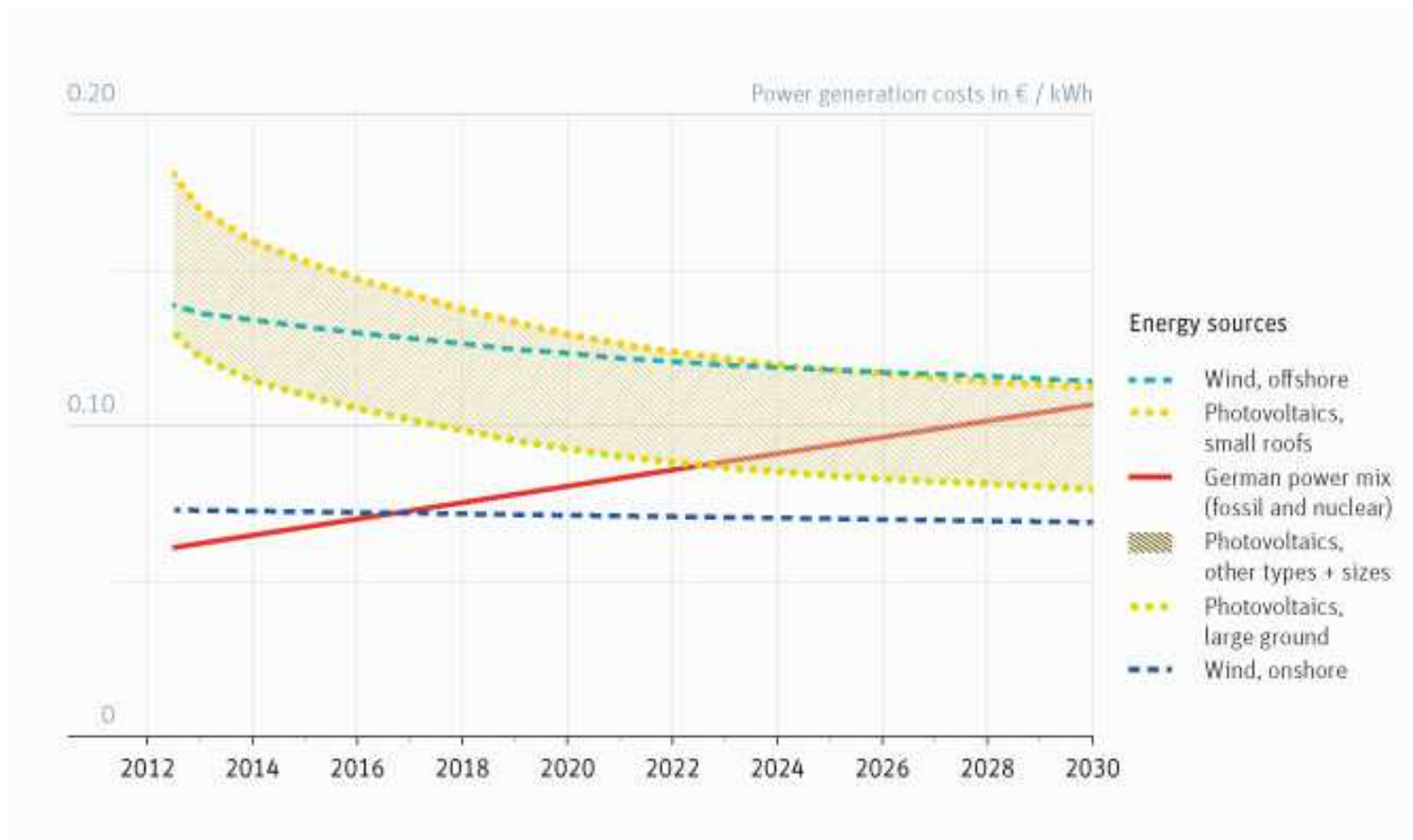
source: Heinrich Böll Stiftung 2013, BMU / BMWi; energytransition.de

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The RES are becoming competitive

Forecast of power generation cost in Germany up to 2030



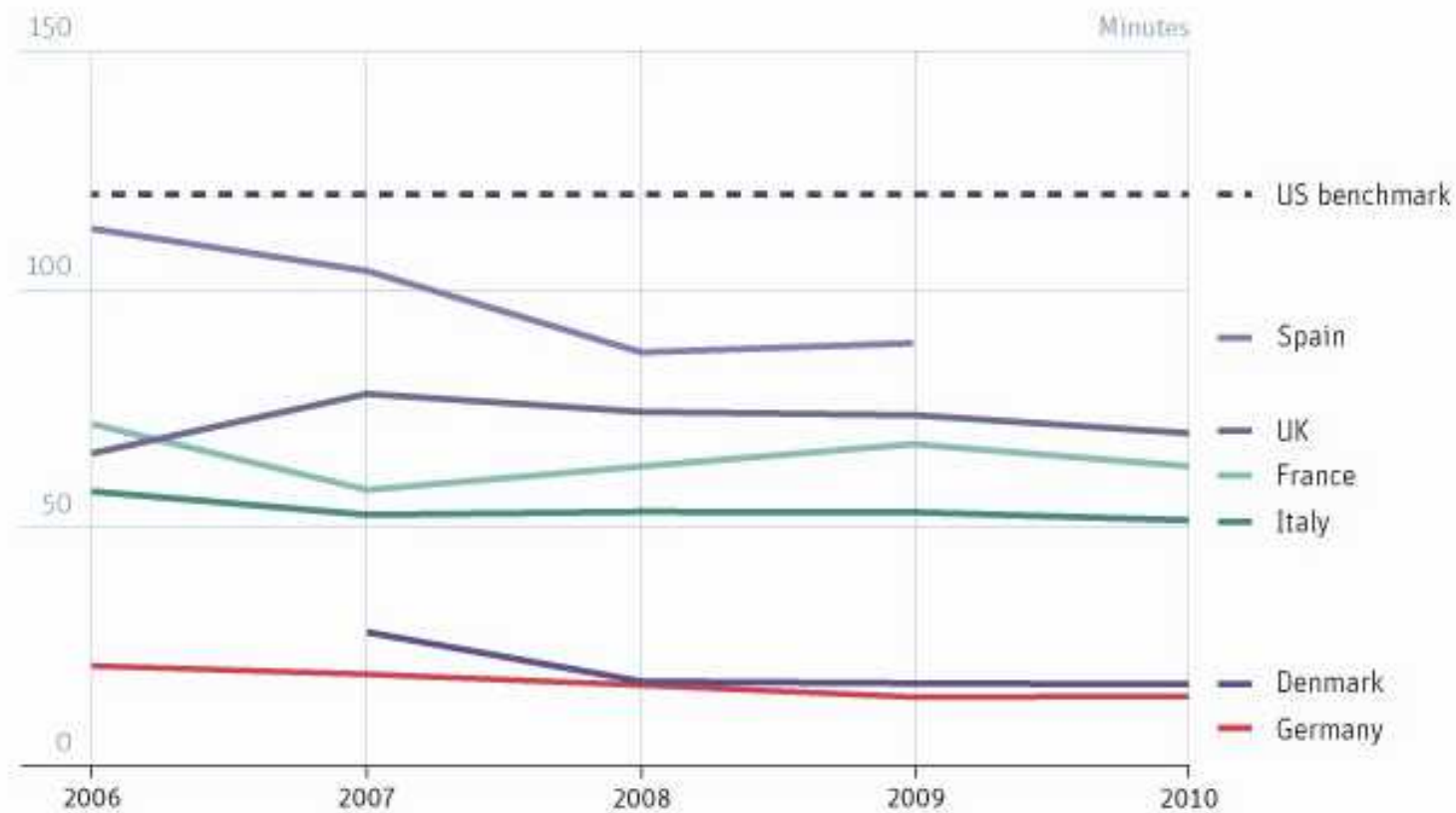
source: Heinrich Böll Stiftung 2013, Fraunhofer ISE; energytransition.de

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Grid reliability and renewable growth seem to go hand in hand

Minutes of power outages per year (excl. exceptional events), based on Saisi



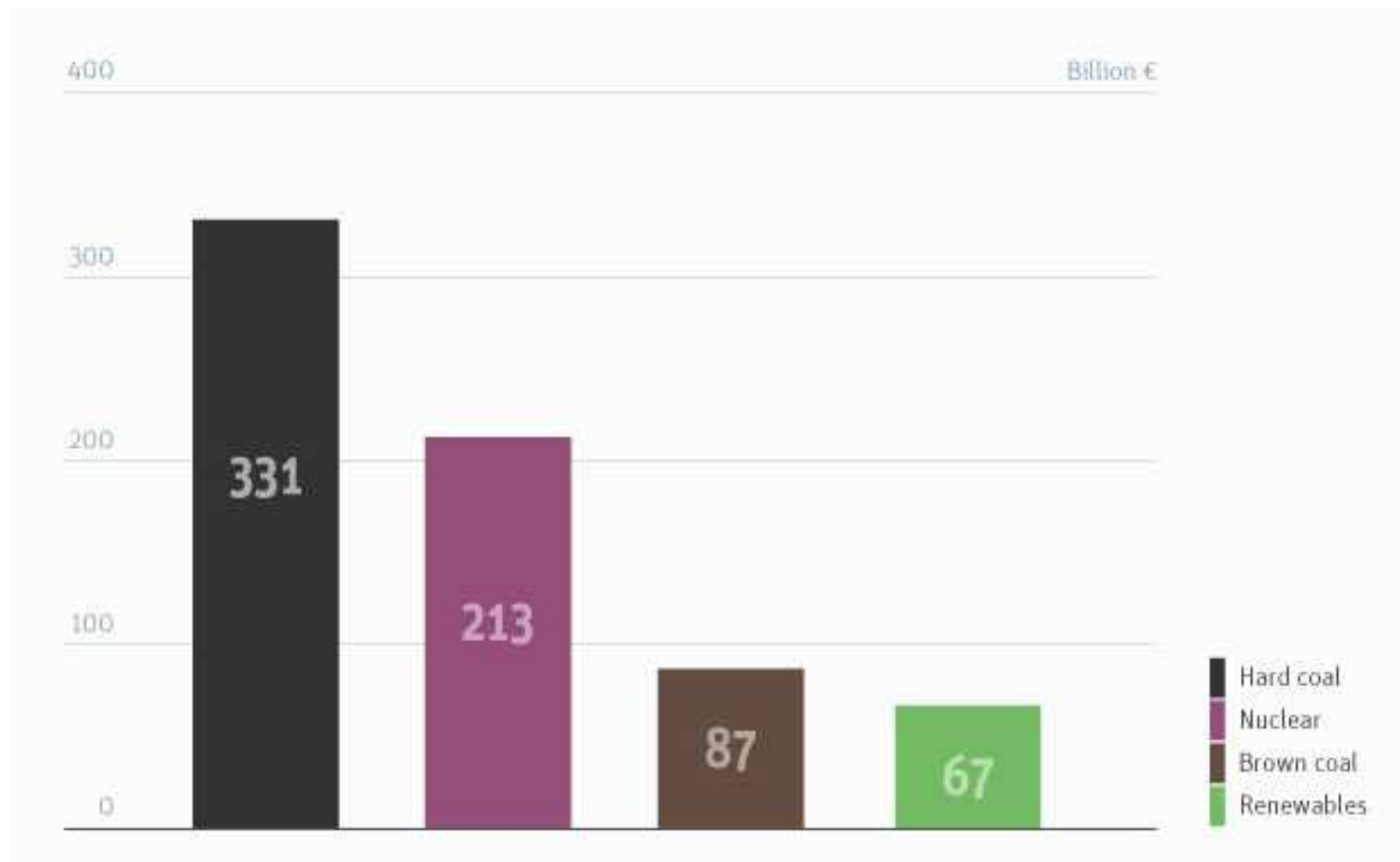
source: Heinrich Böll Stiftung 2013, CEER and own calculation;
energytransition.de

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Fossil and nuclear have received by far more subsidies than RES

Energy subsidies in Germany, 1972 - 2012



source: Heinrich Böll Stiftung 2013, Green Budget Germany; energytransition.de

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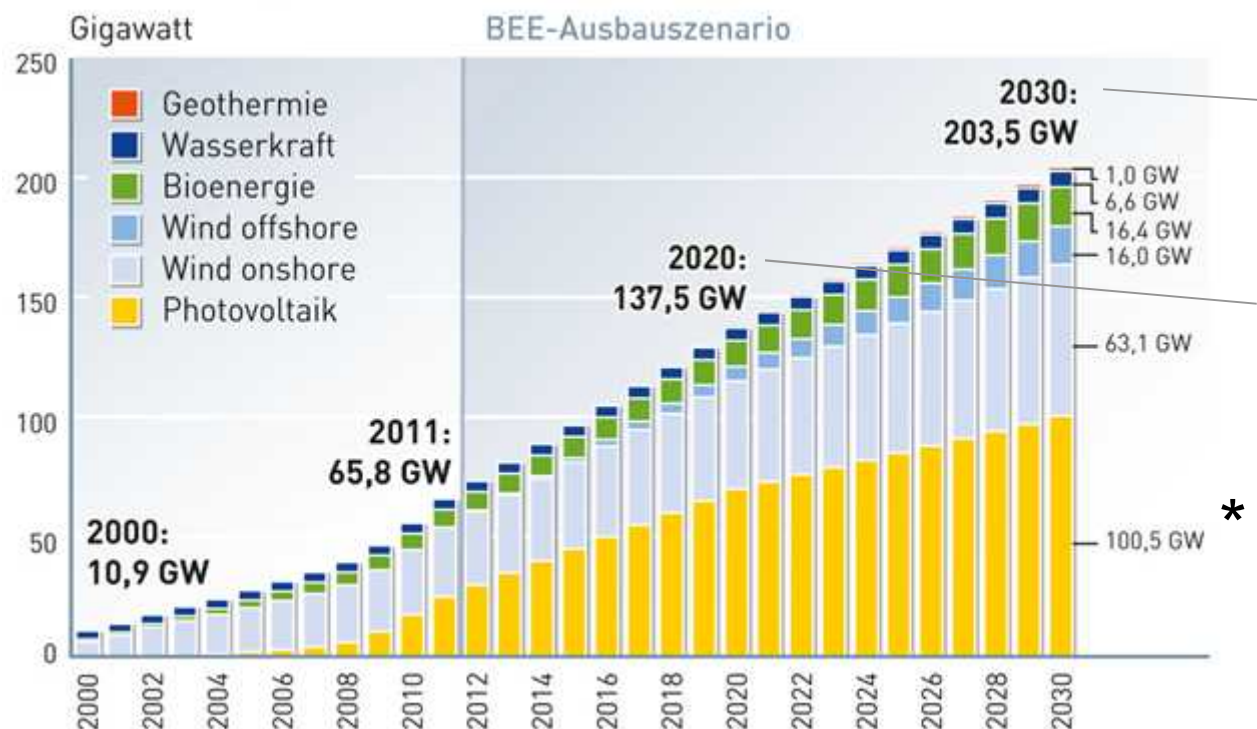
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Proposed 2016 reform of German EEG

- Tender system
- De facto cap of 40-45% of RE in electricity production by 2025
- In addition: strategic reserve
- Can the past success of the *Energiewende* be continued?

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Quelle: BMU/AGEE-Stat, BEE Plattform Systemtransformation (Stand: 12|2012), AEE, www.unendlich-viel-energie.de

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Essential components to promote energy citizens

- Strong, clear and constant **political commitment**
- Clear, reliable and stable **governance framework** for RE deployment enshrined in legislation and including enforcement mechanisms (investment security)
- New energy market design:
 - Decentralised energy system centred on RE & RE with multitude of independent power producers
 - Prosumers and self-consumption
 - Empowerment of consumers (households, cooperatives, SMEs)
- Priority dispatch for renewables
- Continued national RE remuneration mechanisms

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Essential components to promote energy citizens

- No retrospective and retroactive measures against existing renewable energy projects
- No administrative and financial burdens for renewables
 - Time to get permits and planning (one-stop-shop)
 - Taxes and levies
- No capacity payments
- No subsidies for nuclear and fossil fuel plants
- No further investment in nuclear and fossil fuels

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Thank you for your attention!

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