


„Energiewende“ – Trois ans après

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Table ronde, France Stratégie, October 2nd, 2014



Disclaimer



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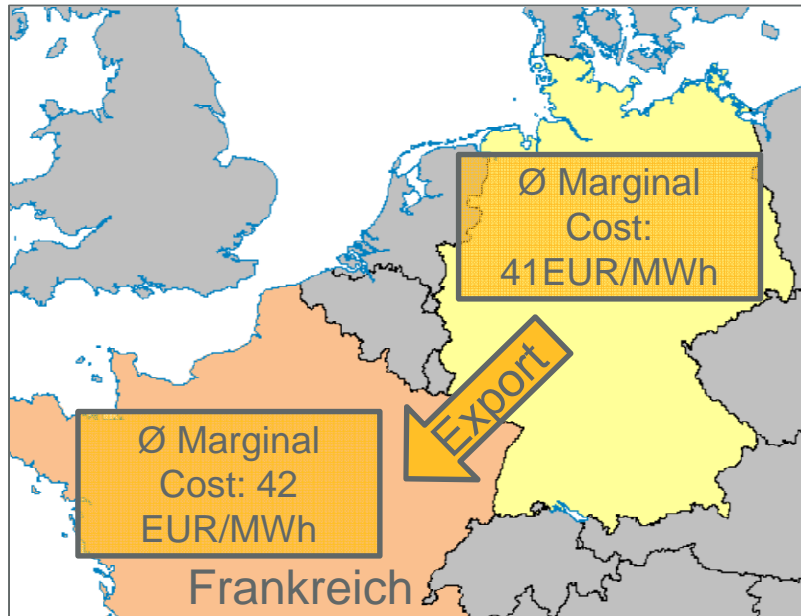
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L' „Energiewende“ ?

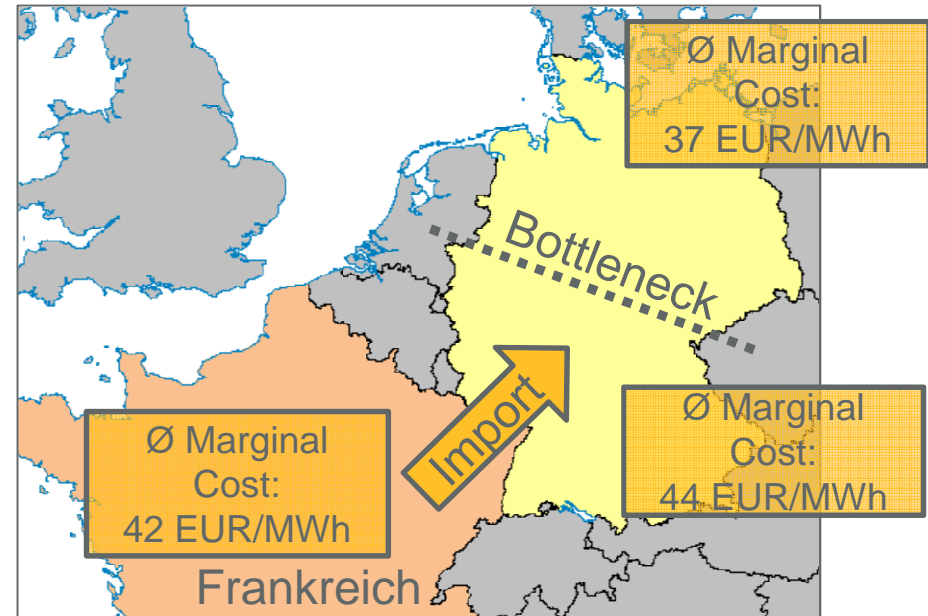
Nuclear phase-out: Unforced asset depreciation, and **ewi** creation of regional imbalance

What market prices look like:



Source: EWI. Selected model results for 2022.

What scarcity really looks like:



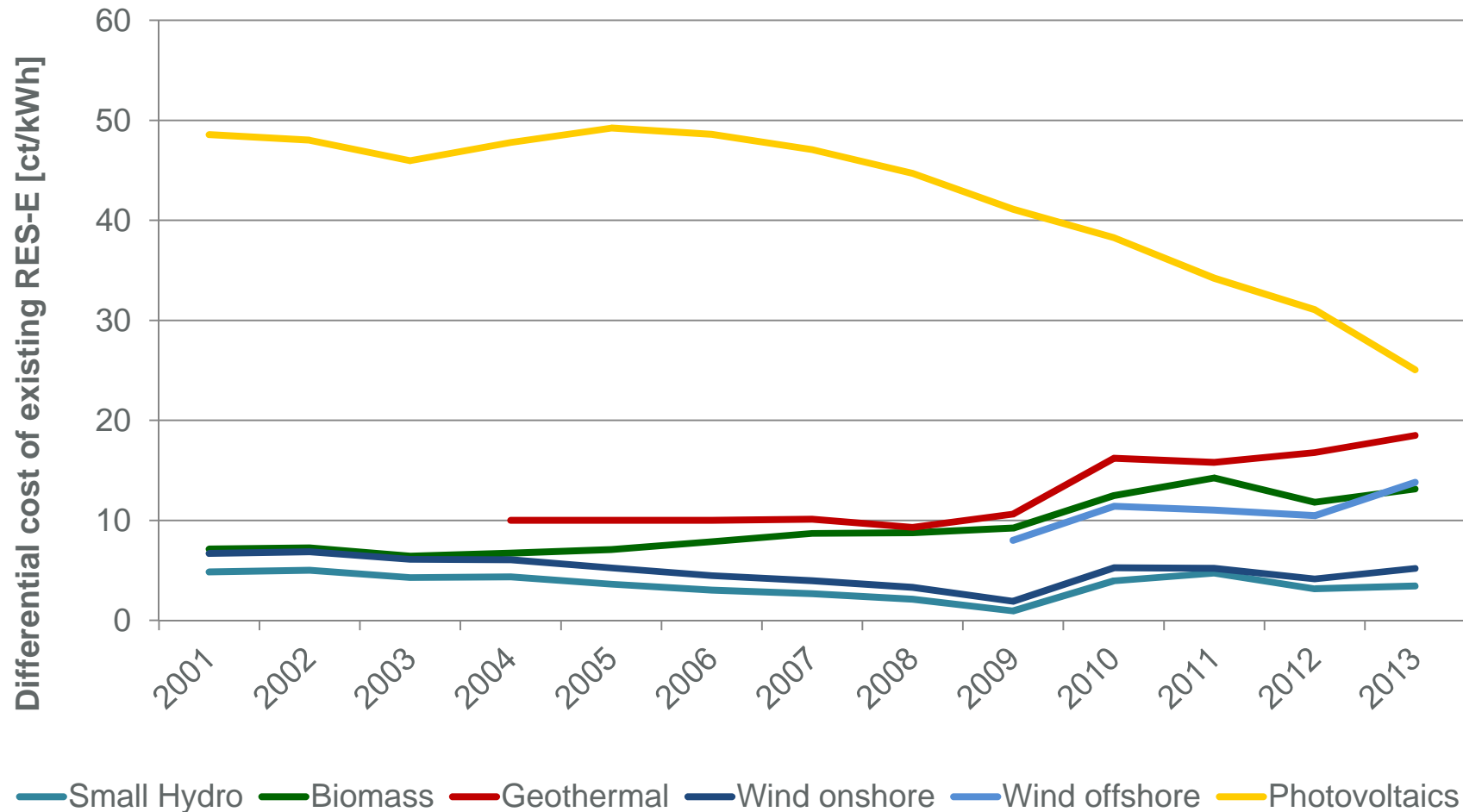
Source: EWI. Selected model results for 2022.

When keeping uniform bidding zone for Germany:
much closer cooperation with neighbouring countries required

Source: EWI (2014)

RES-E: expensive, and no reduction of GHG-emissions

EEG-differential cost (= FiT ./ Market Value)



Source: BDEW (2013): Erneuerbare Energien und das EEG: Zahlen, Fakten, Grafiken.

Myth: „Levelized Cost of Electricity“ (LCOE)

Correlation between wind-/solar feed-in and market value

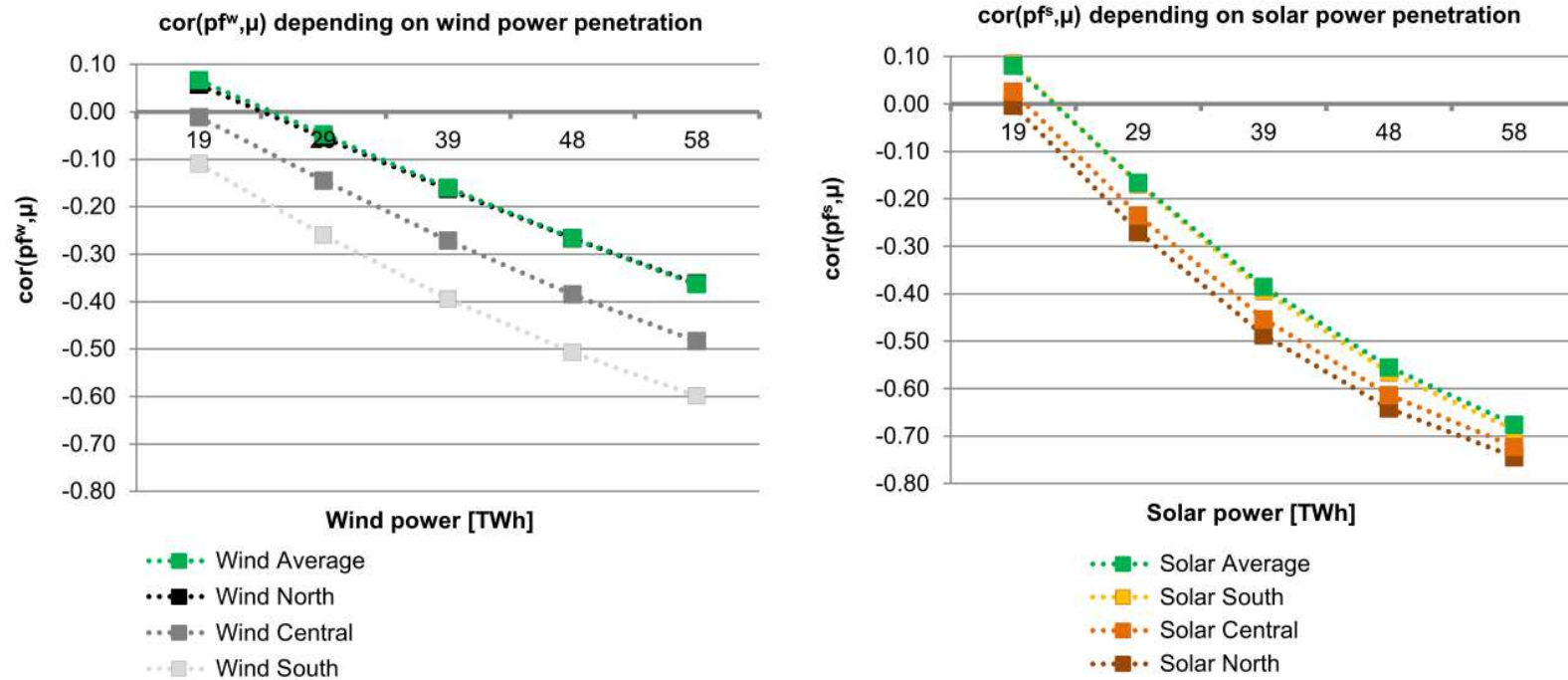


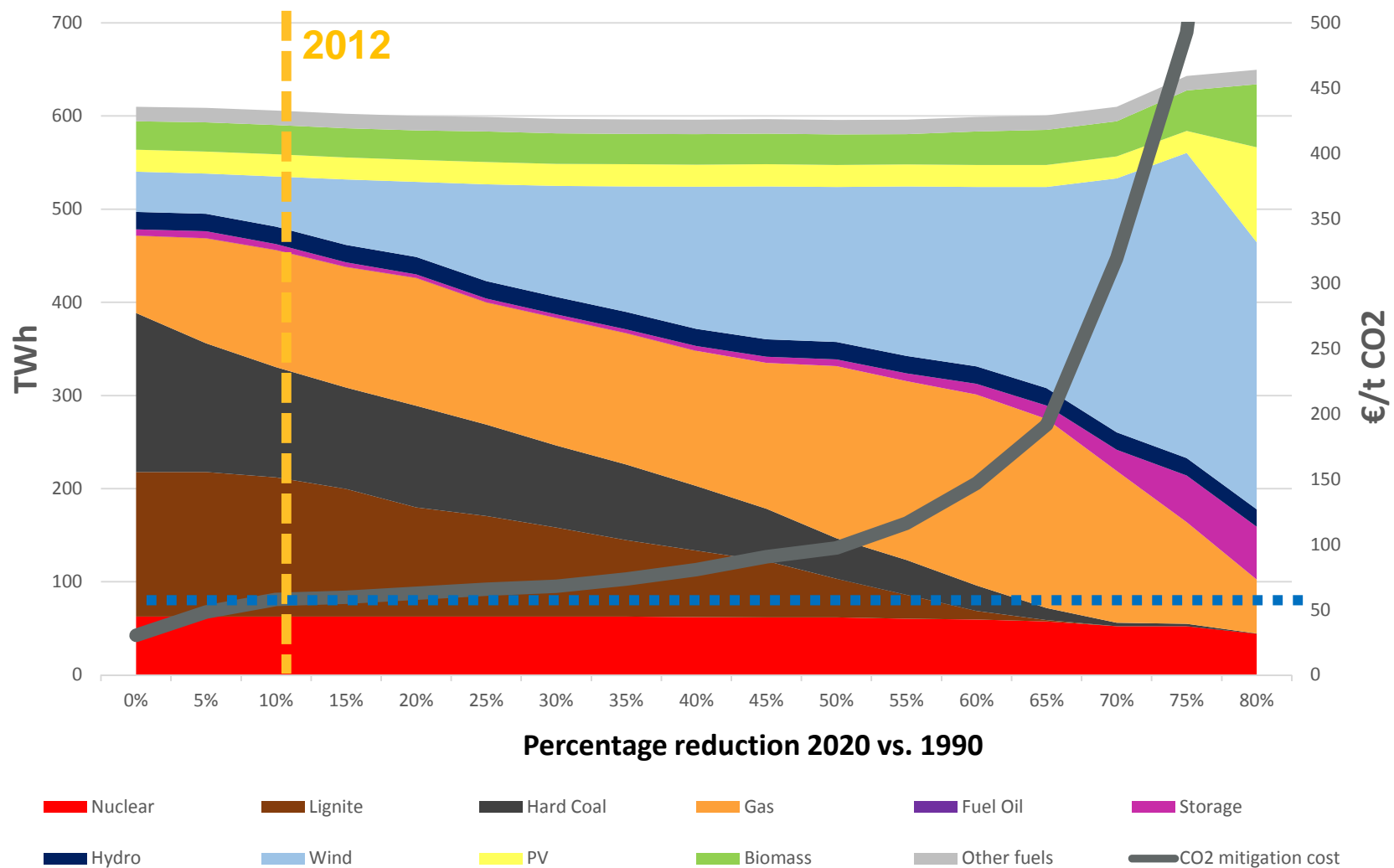
Figure 3: Correlation between the hourly wind/solar power production factor and the wholesale price ($cor(pf^w, \mu)$, $cor(pf^s, \mu)$)

Source: Jägemann (2014)



Mitigation economics in the German power sector


Hypothetical results without import-/export effects



Source: EWI (2014)

A tale of politically robust redistribution – for the time being

**Political support for
RES-E state-aid in Germany**



Levy
instead of
state
budget

**Exemption
rules**
for heavy
industry

**German-
wide levy**
instead of
individual
levies for
the federal
states

**German
locations**
instead of
EU
competition

Critical elements of „Energiewende“ agenda

1. Blending into EU energy policy for 2020-2030
 - EU-ETS, EU-RES-E-targets and support scheme
 - Leveraging intra-EU synergies in CO₂-mitigation
 - Cross-border „Bidding Zones“, incl. capacity mechanism design (if/how)
2. Drastically rethinking RES-E-Support (EEG)
 - RES E-targets „out of the money“ – but still not fundamentally revised
 - Reducing and refinancing difference cost (excess cost of RES-E-support)
 - Integrating RES-E into the European electricity market
3. Improving generation adequacy where needed
 - *No nationwide need for action*
 - Regional situation partially critical, esp. in Southern Germany
4. Reducing state-induced price distortions
 - Avoiding economic inefficiency
 - Avoiding further redistributive effects



Thank you very much for your attention.

