EEG 2014: Energiewende light, Energiewende backwards?

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Abstract and questions

EEG 2014 is a break with the past, not a continuation. It means the victory of those forces that objected to EEG logic in 2000-04-08-11 and almost prevailed in 2012 but were stopped by the Bundesrat

So what is its purpose? Its goals?

What interests are benefiting from its instruments?

What is new about the coalition behind it?

Professed Purpose and Goals

- **“Make Energiewende affordable**” by a planned transition + market integration
- **“Maintaing goal of growth of renewable power to 80% share by 2050”**
- **“Make Energiewende safe”** from threats to security of supply, grid stability etc.
- **Save suffering German industry from disaster** by stabilising the surcharge and limiting its burden on industry

Unstated Purpose 1

Set up myth of unchanged RES-E deployment while in fact slowing it down

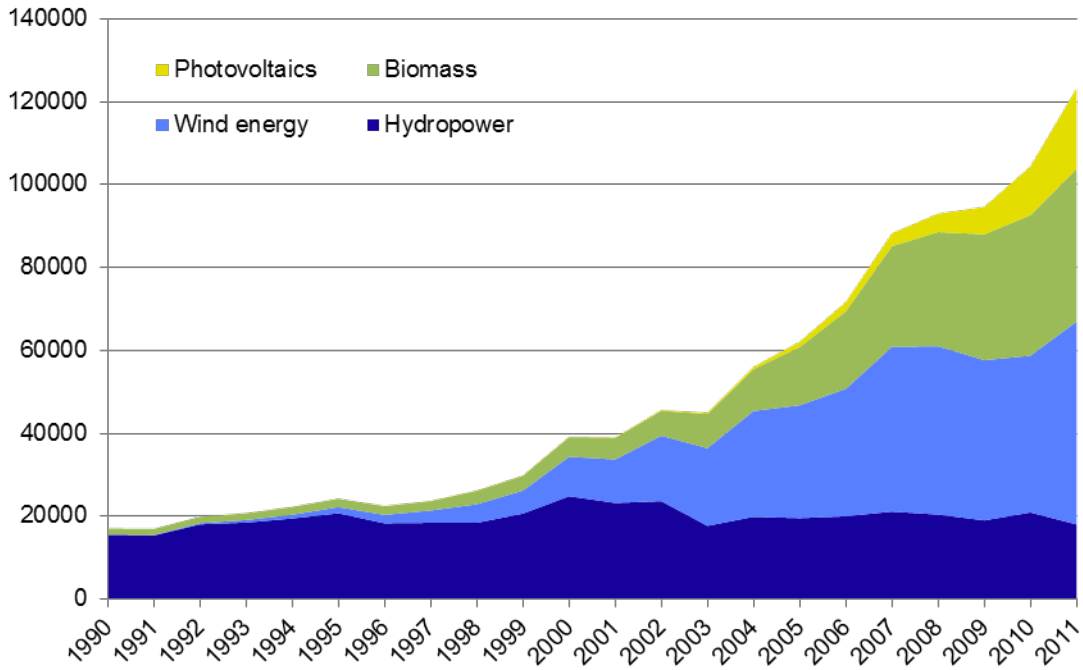
The targets of EEG 2014 reflect largely the targets of EEG 2011 (35% by 2020, 50% by 2030, 65% by 2040 and 80% by 2050 – but those were minima, not caps as in EEG 2014. Since then EW had accelerated further, 100% seemed within reach for 2030s (SRU 2012; Hohmeyer 2014). EEG 2014 puts “flexible caps” on potential acceleration.

Minimum targets regularly over-achieved/ moved upwards till 2010

- EEG 2000: **12%** by 2010 (achieved in 2005)
- EEG 2004: **20%** by 2020 (achieved in 2011)
- EEG 2008: **30%** by 2020
- NREAP 2009: **38.6**% by 2020

- Energiekonzept 2010/EEG 2011: **35%** by 2020: Should this be sacrosanct? Was intended to make space for postponing nuclear phase-out

Germany: Development of new renewables-based electricity generation,1990-2011, in GWh (from about 1.5 TWh to 105 TWh): 70x, excl hydro



Adapted from: FME (Federal Ministry for the Environment, Nature Conservation and Nuclear Safety) (2012).

Acceleration of renewable generation growth up to 2013. Slowdown efforts post-2010 enacted in 2014

Year	Total generation in TWh	Annual increase in period
1990	19.7	
		Average 1 TWh/year
1999	29.1	
		Average 5.5 TWh/year
2004	56.6	
		Average 9.5 TWh/year
2009	94.9	
		Average 14.2 TWh/year
2013	151.7	

Unstated Purpose 2

- **Reduce hardships for coal and nuclear-based incumbents by slowing RES-E deployment; also new collision rules with RES-E in case of negative prices.** Incumbents fought EEG which limited them to residual load and barely invested in RES-E. Plagued by diminishing market shares, falling full load hours, falling wholesale prices, overcapacity, all-out competition, plus mothballed gas generation, nuclear phase-out…). RES-E no longer compensated for "excess" generation, inflexible fossil gen. benefits

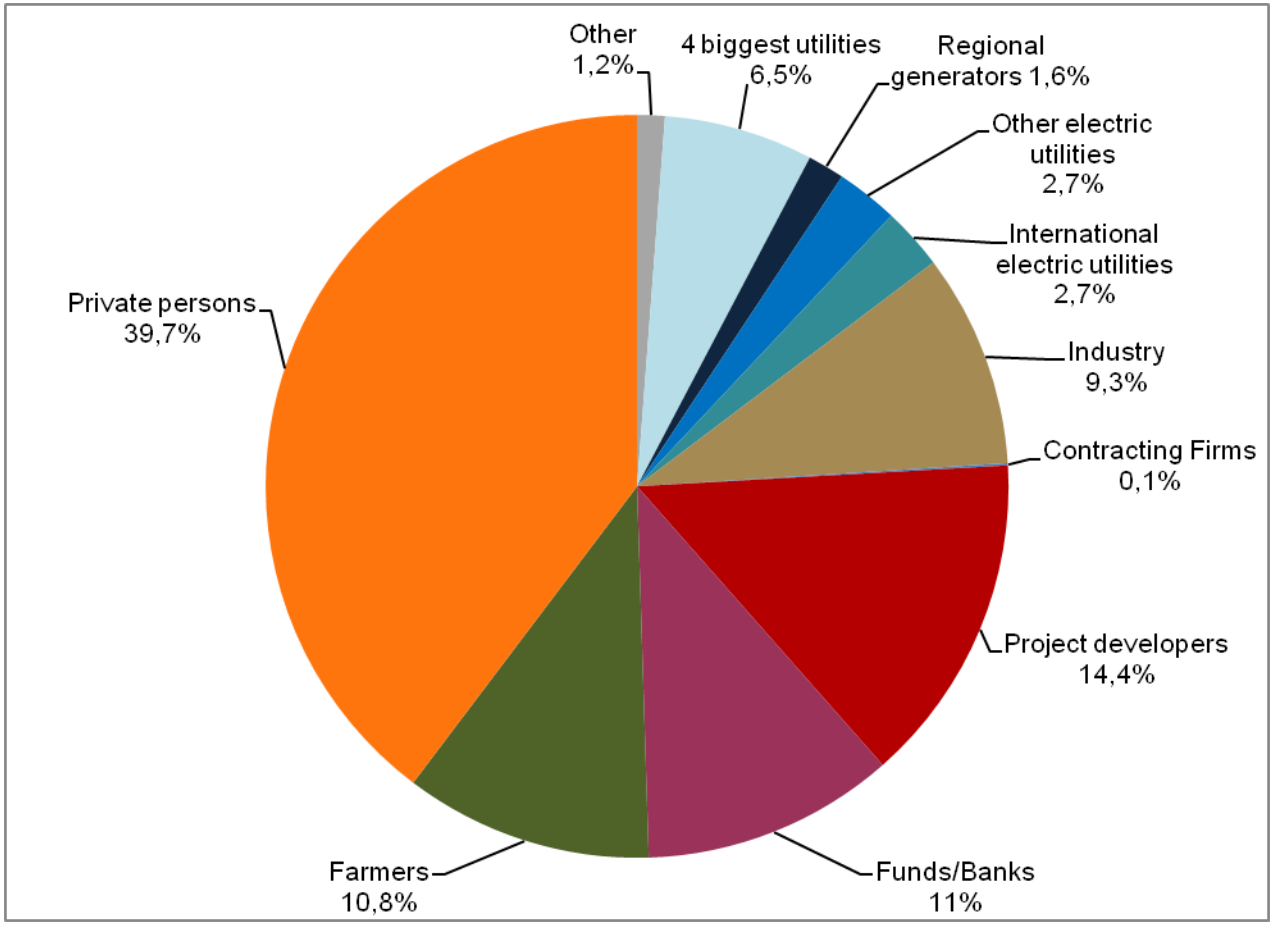
Unstated Purpose 3

- **Privilege incumbents' access to renewable power sector in future.** The replacement of FIT/ market premiums by bidding - envisioned for 2017 - is mostly seen as allowing incumbents to replace citizens and non-utilities as chief RES-E investors).

  But it is not clear that incumbents have the funds or the desire to promote EW (conflict of interest with their other investments).

  No good record of bidding systems vs. FIT.

Figure 1. Ownership structure in 2010 of renewable electricity installations in Germany (not including pumped storage) (Total installed capacity: 53,0 GW)



Adapted from: trend:research (2011), p.45.

Unstated Purpose 4

- **Stabilise competitive advantage of German export industry through low cost of power** (exemptions from grid fees, electricity tax, only modest 20% contribution to surcharge). Paradoxically - given their complaints – big electricity users do not seem to pay prices that would hurt their competitive status (Küchler and Wronski, FÖS 2014). EU negotiated new state aid guidelines for enviro. and energy in close contact with German government.

Unstated Purpose 5

- **Keep intact a system that inflates extra costs from RES-E for small consumers**
- Since 2010, RES-E no longer physically passed to suppliers but sold for less on spot market.
- Merit order effects of RES-E growth and new coal build despite overcapacity reduced whole-sale price for surcharge exempted firms only, while increasing burden on households, SMEs
- The latter's burden also increased as a result of multiplied exemptions under Econ Aff Min Rösler (Meyer and Burger, 2014)

What are key new instruments of EEG 2014? Origins and purpose?

- FIT are replaced, first by **market premiums**, then starting in 2017 by **bidding systems**
- **Deployment corridors** with **flexible caps** stabilise (= put lid on) RES-E deployment
- **New collision rules** favour inflexible coal and nuclear generation over fluctuating renewables
- **Surcharge for RES-E self-consumers** will help to reduce their investments

Market premiums, bidding systems

- At EU level, market premiums had favour of European Com. (Papoutsis) in 1997-99, along with quota-certific. schemes. Recently shift to bidding systems (State aid rules/2014)
- In Germany, quota systems were supported by incumbents since early 2000s (certificates, more recently bidding systems), also by FDP. CDU for market premiums until recently, some in business wing favoured bidding systems.

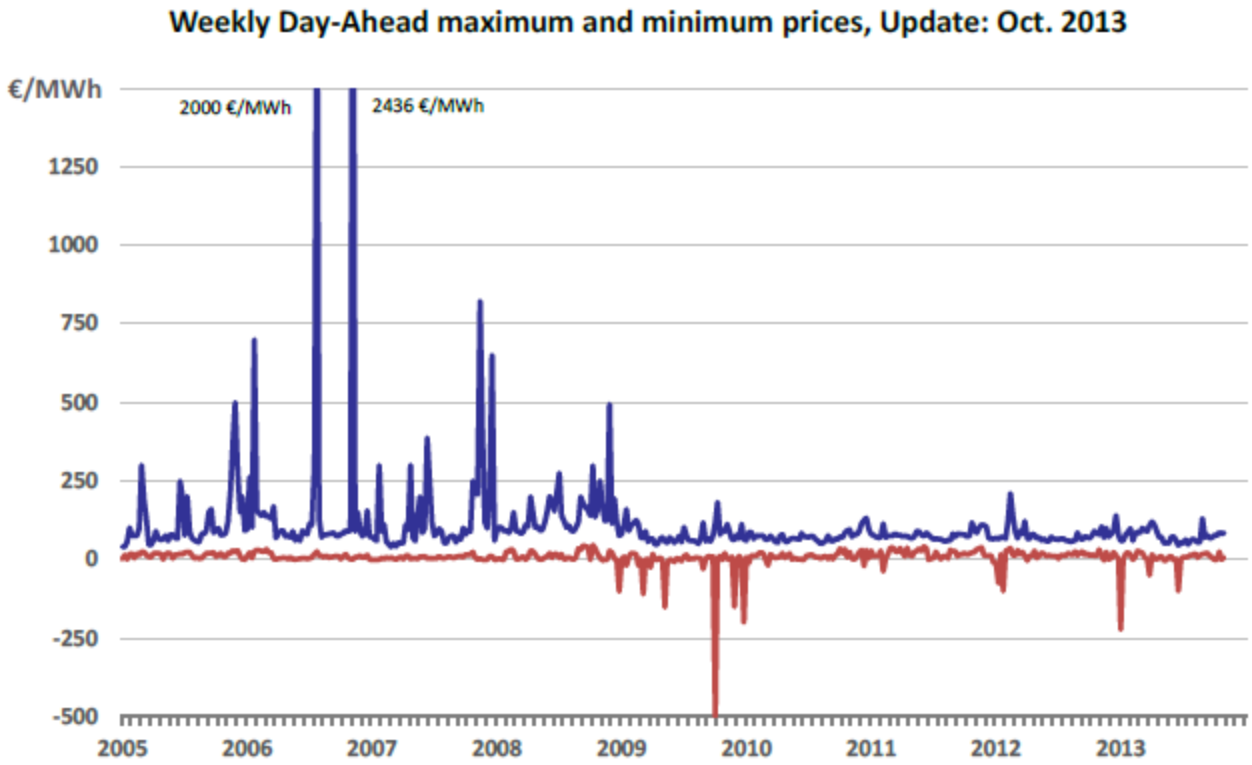
Deployment corridors and flexible caps

- First discussed for PV in debates of EEG 2008, proposals from Fell (Greens) and Pfeiffer (CDU business wing) to prevent surge. Rejected.
- Reinvented by Röttgen (CDU ecol. wing; Min Env in charge of renewables) for EEG amendment 2010 to limit PV growth to 2.5-3.5GW/a
- Altmeier (CDU, Min. Env.) proposed them for all RES-E technologies in 2012 for slowdown
- Gabriel (SPD, Econ+Energy Min) tightens limits:2.5 GW/a for wind and solar, 0.1 GW biomass.

Precedence for conventional generation in case of negative prices

- Neg. prices occur in Germany since 2009
- Due to low demand+high fluctuating generation+inflexible coal or nuclear. RES-E then compensated if shut down (priority access)
- Incumbents push for eliminating RE compensation in these cases, idea picked up by Rösler, (FDP Min Econ Aff) and CDU, later (?) SPD
- In govt. coalition agreement 2013, p.55
- Also in EC State Aid rules for energy (2014)

History of Price Extremes in the Day-Ahead Market



Source: Mayer, Johannes (2013): Electricity spot prices and production data in Germany. Published by: Fraunhofer ISE. Available at: http://www.ise.fraunhofer.de/de/downloads/pdf-files/aktuelles/boersenstrompreise-und-stromproduktion-2013.pdf, 02.11.2013.

EEG surcharge for self-consumers

- Argued with the cost of grid use by self-consumers and the need to balance fluctuation impacts, ensure security of supply etc.
- Current PV compensation so low that flexible cap of 2.5 GW probably not reached in 2014. Surcharge will further dampen PV investment
- Many other consumers of self-generated power are exempted. Logic? Protect incumb.?

Conclusion

- They represent a major victory for
  - electricity incumbents
  - believers in neoclassical/neoliberal precepts
- But not necessarily for efficiency and effectiveness of RES-E regulation

Political coalition behind EEG- why the shift of SPD?

- Many innovations of EEG 2014 emerged as ideas among FDP Liberals from 2000 onwards
- The Conservatives: similar but more sympathetic towards RES-E and even EEG; though always concerned with moving RES-E closer to market “soon” to avoid overcompensation.

  In 2012 their business wing gained upper hand over ecological wing, radicalised party stance

Political coalitions behind EEG

- Both CDU+FDP often patrons of incumbents, particularly when Liberals held Econ Aff Ministry. General industry associations came up with similar ideas. Also EU commissioner Oettinger.
- The only surprising element is the shift of SPD, from 2000 to 2012 onwards supporter of EEG against similar proposals coming from the Liberal-Conservative government and critical of incumbents' positions.

Hypotheses to explains SPD shift

- Weakness of party in 2013 election; SPD had to make strong concessions in coalition agreement. But Gabriel is keen on new policy
- SPD was led in coalition negotiations on energy by Hannelore Kraft, governor of NRW (North Rhine Westphalia), Germany's most populous state where coal plays big political role even though coal jobs are down (nationwide) to 36.000, from over a million in 1950s

Hypotheses…2

- Long-standing, sometimes overly close links of NRW Soc Dem to RWE (Becker, 2011) explain traditional soft spot for coal power in “coal faction” (Kohlefraktion) of party.
- Coal faction may have gained upper hand after 2013 elections, similar to bus. wing in CDU in 2012.
- Incumbents may have stepped up pressure in light of their dramatic situation

Hypotheses… 3

- Growing estrangement between Soc Dem and especially PV industry during PV surge of 2010-2012 and the industry's earlier calls for strong support?
- Subsequent failure of PV policy to replace energy imports by domestic industry/employment – loss of interest for Soc Dem leaders?

Hypotheses… 4

- Unwillingness of party to take up a compli-cated and possibly unpopular problem (the real extra cost of RES-E versus the surcharge); fear of being seen as a party making problems for German industry, exports, wealth.
- Unwillingness to face populist accusations of neglecting energy security, risking blackouts
- Soc Dem conversion to neoclassical/neoliberal philosophy on RES-E?

Persisting effects of “old” EEG

- Incumbents are unlikely to return to their earlier privileged condition since EEG plants (installed up to this year) will continue under their earlier compensation regime; share of renewables will further increase
- Even at the reduced rate of deployment, annu-al additions are likely to range between 8 and 11 TWh per year (depending on tariffs/premiums and other /bidding results)

Persisting effects of “old” EEG?

- By creating new generators not controlled by incumbents, EEG broke up a largely non-competitive electricity generation structure nearly 100 years old, something the Allies in post-war Germany and EU liberalisation did not achieve
- In a competitive environment, it will be very difficult to restrain transition towards renewables if technology costs are falling

Lasting effects of pre-2014 EEG

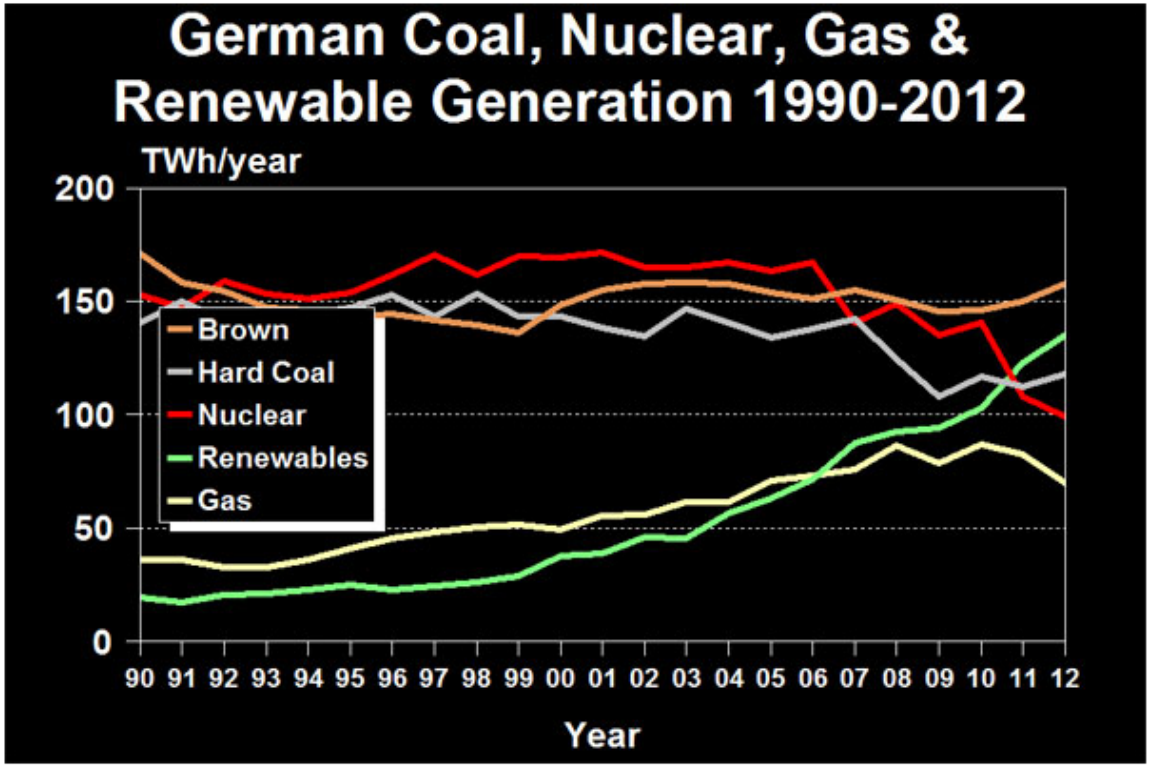
- Probably no German government would have been able to/dared to directly introduce as much competition in the electricity sector.
- “Old” EEG undermined of oligopolistic power, profitability and technological inertia of the electricity incumbents locked into fossil fuels
- Also, the breakthrough on PV (for the whole world) would not be here yet

Good bye EEG

R.I.P.

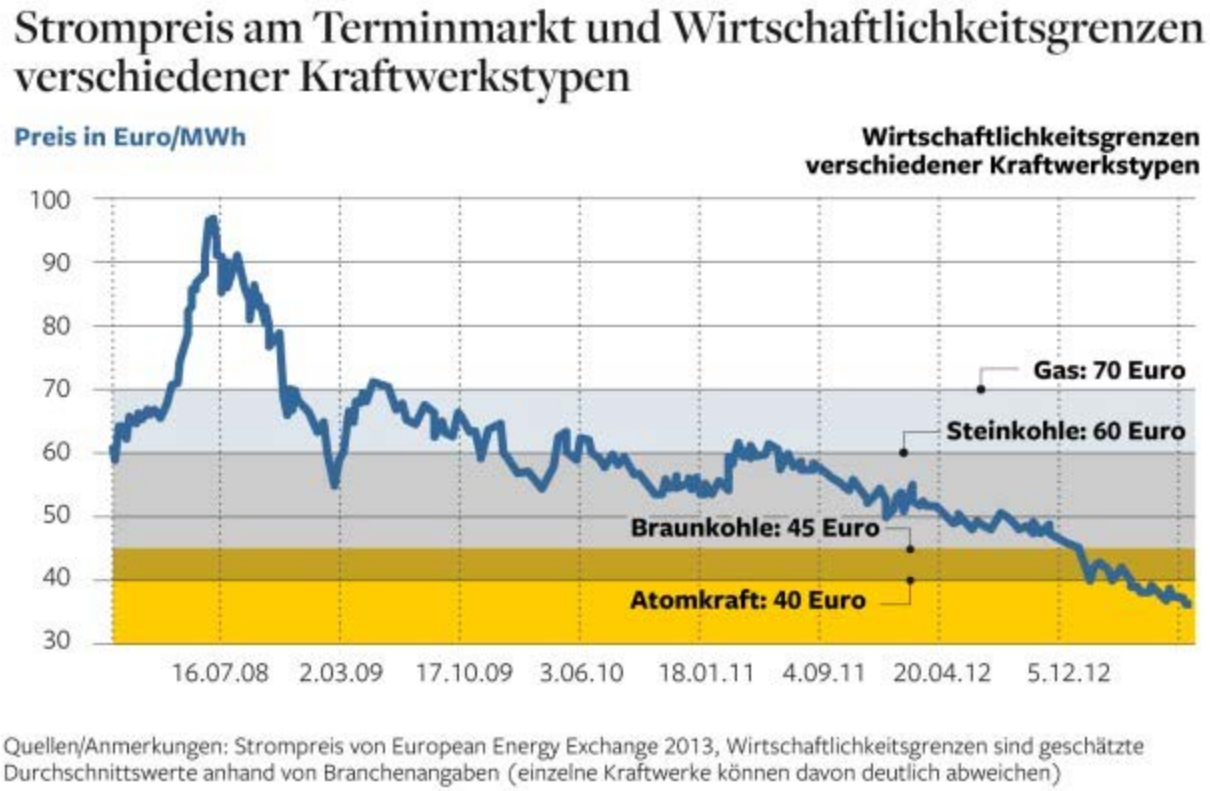
until your next reincarnation

German Coal, Nuclear, Gas and Renewable Generation 1990-2012



Source: Gipe, Paul (March 2013): 2012 German Nuclear & Gas-Fired Generation Falls Further While Renewables Grow. Available on: [http://www.wind-works.org/cms/index.php?id=39&tx_ttnews[tt_news]=2259&cHash=3991f443a7d9f79482d8c8d4816c0a32](http://www.wind-works.org/cms/index.php?id=39&tx_ttnews[tt_news]=2259&cHash=3991f443a7d9f79482d8c8d4816c0a32), 18.03.2013.

Electricity price on the German futures market and profitability thresholds of different types of power plants, 2008-2012



Jerome à Paris (5 September 2013), The Economic and Political Consequences of the Last 10 Years of Renewable Energy Development. Available at: http://www.resilience.org/stories/2013-09-06/the-economic-and-political-consequences-of-the-last-10-years-of-renewable-energy-development,acccessed 27.09.2013.