

Germany's energiewende and EU policy

Polish Institute of International Affairs

David Buchan

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Questions addressed

- Does Germany need, or would it have benefited from, a more common EU approach to energy?
- What has been the impact of Germany's energiewende on EU policy?



Germany is exporting electricity and importing (grid) stability

- German X-border trade (especially exports) in electricity has increased by more than one would have expected from EU market-opening liberalisation and by more than would have occurred without the energiewende. It has been exporting its surges in renewable power and, to a lesser extent, importing power for balancing.
- Trade. Since 2003 Germany has been a net exporter of power. Over 2002-2011 total German exports of electricity rose 30% and imports by 11%. In 2012 German exports (figures include trading and balancing flows) were 67.3 billion kWhs, imports 42.8 billion kWhs, and main recipients of German power were Netherlands, Austria, Switzerland and France.



Causes and effects

- Surges in weather-dependent renewables. In 2012 solar PV installed capacity was 33 GW, and wind capacity 31.5 GW.
- Prices. These zero-marginal cost renewables have pushed German wholesale prices lower, so that in July 2013 the wholesale forward price was the lowest since 2005. This has dragged down prices in neighbouring countries when it can reach these markets, and when it cannot because of interconnector congestion, the German price goes negative.
- Closures. The number of loss-making conventional power plants that utilities are now seeking the German regulator's permission to close has now reached 26. Closures abroad – a Rotterdam CCGT completed in 2011, but operated only 690 hours in 2012.



Would Germany have benefited from a common EU approach to electricity generation? Maybe

- Nuclear – impossible. EU partners could never have dissuaded Germany from abandoning nuclear, but could perhaps have persuaded it to phase out more gradually.
- Renewables. Germany has a national 2020 target, but set at EU level, of 18% (of total consumption). This exceeded its natural renewable potential (in sunlight), but not its technological potential. Germany is on track to exceed its target, which Oettinger has said is as much a problem, because of the strain on the transmission system and on prices, as another country failing to reach its target.
- Coal. Germany would have benefited from specific EU controls on coal plants' Co2 emissions. The LCPD and IED directives control carbon monoxide, but not dioxide.



Will Germany benefit from a common EU approach to infrastructure? Yes

- At present Germany effectively uses neighbours' grids to balance its own. Cheap German power can be seen as payment to neighbouring consumers for balancing services. But in these countries it is seen by local energy producers as 'dumping' and by TSOs as highly disruptive. There is an Inter Transmission Compensation mechanism designed to pay TSOs for hosting spill-over of X-border electricity, but not on the scale of the unplanned loop flows coming from Germany.
- Won't more interconnection make a bad situation worse? Not if better X-border interconnection with Germany is accompanied by a) removal of the internal German bottlenecks that cause loop flows elsewhere and b) reinforcement of neighbouring grids to take German power.



EU list of projects of common interest (PCI)

- This contains 248 electricity and gas PCIs (22 proposed by Germany and 12 by Poland) supposed to benefit from fast-track permitting and some EU funding.
- The list extends the concept of ‘common interest’ beyond X-border projects. Some projects are inside a single member state because of their importance to the wider system. Indeed the German project list contains internal links not only inside Germany, but also inside Austria, Belgium and Poland, just as Poland’s project list also contains internal grid reinforcement to make the link to Lithuania.
- But Poland in particular is being cautious. Upgrade of the Vierraden-Krajnik line is conditional on equipment now being installed to protect against disruptive ‘high flows’.



Energiewende's impact on EU policy

- Berlin's view on EU energy policy, split between the economics and environment ministries, has not always been clear. Before the election, the CDU proposed an energy ministry to increase German influence on EU decision-making.
- Germany used to resist European Commission liberalisation initiatives, not actively and ideologically like France but passively and wanting to be left in peace to deal with its complex domestic energy market in its own way. This has changed, notably the PCI initiative where German self-interest was obvious and where German support was essential.
- Berlin is still prickly about EU state aid probes into German householders cross-subsidising German industry, and rather blind to the idea this might distort competition in the EU.



Germany – vision of the future for the EU

- Germany has accelerated debate in the EU about:
- A) the cost of renewable subsidies. The EEG renewable electricity surcharge is to rise another 19 % in 2014 to 6.2cents/kWh, with an expected total levy on German users of Euros 23.6 billion (including a deficit from 2013).
- B) the 26 power plants that German utilities now want to shut underscore the collateral damage that renewables can inflict on the conventional generation which they need for back-up. (Accentuating this problem is the big German utilities' sudden loss of revenue from some of their nuclear plants).
- C) the need for capacity schemes for back-up. But national schemes = market fragmentation. Perhaps Poland could join Germany in a regional capacity scheme?

