

[Energy in Germany](#)

Green Energy Subsidies: UK Should Look To Germany For Cautionary Tale

10 Nov

How heavily should a state intervene in its energy sector? Virtually every developed state ponders this question. As a cautionary tale about subsidies for renewables gone wrong, it is worth looking at a fresh piece of German history.

The UK is at loggerheads on the future of its energy supply. As the new Energy Bill is to be published later this month, the debate is heating up. Conservative Energy Minister John Hayes has just provoked the more eco-friendly sectors of the public and shaken up the markets by questioning the UK's need for onshore wind power (<http://www.telegraph.co.uk/earth/energy/9644558/Death-knell-for-wind-farms-Enough-is-Enough-says-minister.html>). His comments have contradicted the very essence of London's energy policy in recent years. More crucially, they show how confused and out of sync David Cameron and his ministers really are when it comes to this topic.

The Department for Energy and Climate Change, along with lobbyists for renewables and nuclear power, has been making the case for feed-in tariffs for months. These would give the utilities more room to calculate the expected revenue from, for example, a wind farm or a nuclear plant. That would spur on competition – whereas now, only big companies can afford to take the risk of a venture not being profitable.

Conservative politicians answer that feed-in tariffs would end up bolstering not only the renewables, but also the electricity prices – which is happening in Germany at the moment. (<http://www.spiegel.de/international/business/merkel-s-switch-to-renewables-rising-energy-prices-endanger-german-industry-a-816669.html>) In fact, German politicians are pondering about switching from feed-in tariffs to the utilities having to source certain portions of their electricity from renewable power. That is exactly the model that is used in the UK now. From a truly liberal point of view – party politics aside – feed-in tariffs are a step back.

Will subsidies create a flourishing industry?

The question behind the argument is: will the prices for renewables shrink quickly if the government throws money at the companies, be it through feed-in tariffs or other means? Will subsidies, in the long run, make UK engineers develop wind turbines, solar panels, nuclear plants or environment-friendly coal plants that the world wants to buy?

As a cautionary tale, it's worth gazing across the north sea.

(http://www.slate.com/articles/news_and_politics/project_syndicate/2012/02/why_germany_is_phasing_out_its_solar_power_subsidies_.html) Germany had been subsidising its solar power recklessly. Due to the state guaranteeing the revenues for 20 years, no home owner could put a foot wrong by putting a solar panel on his roof. Green Entrepreneurs like Frank Asbeck, founder of market leader Solarworld, became millionaires – and the costs were rising constantly.

Who had to pay for all that? Mr. Average had to. Each and every kilowatt hour of solar electricity had to be subsidized by the customers, through individual energy bills. So prices rose. Soon, Angela Merkel was facing a severe backlash – by the energy intensive industry which was faced with severely mounting production costs, by the lesser partner in her coalition and by consumer groups. Germany's political leader gave in soon: last summer, subsidies were cut drastically.

German solar companies under pressure

Even earlier, German solar technology manufacturers had come under pressure from another angle: Chinese producers had begun flooding the market. Gigantic subsidies and lower wages gave and still give them the chance to produce at unmatched prices.

Taking into account that crisis-ridden European countries like Spain and Italy have also been cutting down their solar budgets, it's easy to explain why German developers of solar parks and producers of solar panels have been folding one after another (<http://www.spiegel.de/international/business/q-cells-bankruptcy-heralds-end-of-german-solar-cell-industry-a-825490.html>). Even for comparatively resilient companies like Solarworld, the stock value is plummeting. The subsidies that everybody had to pay through energy bills lead to exactly nothing. They were and still are an utter waste of money.

To be fair: subsidies as kick-starts for business sectors can be, and were many times, success stories. But this example goes to show that a government ramping up on green energy on a wave of public sentiment without a coherent strategy can end up shooting itself in the foot. Spending money on so-called sustainable technologies does not always prove to be so sustainable after all.

Update: Karl-Friedrich Lenz brought forward some criticism about this post. (<http://k.lenz.name/LB/?p=8085>) One valid point: the tariffs for solar subsidies have not been rising, as previously stated in paragraph 6 – only the costs have. His other assertions are discussed in a comment of mine (<http://k.lenz.name/LB/?p=8085#comment-7887>).

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8 Responses to “Green Energy Subsidies: UK Should Look To Germany For Cautionary Tale”

1. [lisashark](#) November 30, 2012 at 4:25 pm [Edit #](#)

It's always the same question when you've made an investment: Does it make any profit?

I want to acknowledge that most of the German politicians aren't engineers and therefore they have to rely on the opinion of the industry. Maybe some decisions are made too quickly and improvidently (lobbying, more votes at the next election,...)

PS: great blog!

[Reply](#)

- [florianbamberg](#) November 30, 2012 at 9:26 pm [Edit #](#)

Thank you, Lisa! I guess some decisions are indeed made too quickly. In this case, the phase-out and transformation of the system were decided on a wave of public sentiment – now lawmakers have to actually look at the details, which are proving to be difficult enough. I guess solar power was a strong symbol for renewables, too – so politicians got weak. But that is just my little theory

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2. [Alex](#) November 23, 2012 at 12:47 pm [Edit #](#)

Next year we'll be paying over 25c/KWhr for electricity in Germany. It would be unbearable if it weren't for our solar panels.

However, part of the purpose of the FIT scheme was to drive up volumes and bring down prices. In this respect, the German solar FIT has been successful. Consumers in Germany such as myself are paying a lot for all the previously installed solar, but not so much for future installations. Solar power in Southern Germany or Southern England is cheaper than retail electricity.

The UK is late to this game, so the costs are lower. In effect, in the UK we can free-ride on German solar and Danish wind experiences. On shore wind is price competitive with gas and nuclear electricity – though has to fall further to cover the cost of the required spare gas capacity. But then the UK has a much better wind resource than either Germany or Denmark.

Whether future expansion (as opposed to the high sunk costs in German solar and Danish wind) is cost competitive depends on

1. Developments in electricity storage: Germany can't handle much more solar, even if it is cheap, without some way to store the electricity. Low cost Sodium Sulphur batteries please.
2. Future prices of fossil fuels. Germany is happy to use brown coal but the UK believes in gas. Even the Greenpeace energy scenarios relies on gas generation.
3. For German solar in particular, domestic fuel cell CHP will be the perfect compliment if the price can fall, as it leads to relatively clean electricity generation in winter, when solar yield is very poor.

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3. [Jean-Marc Desperrier \(@jm_desp\)](#) November 12, 2012 at 12:21 pm [Edit #](#)

Do you have more details about what the energy intensive industry complaints consist of exactly ?

Actually few people really understand (or seem to be interested in) how the electricity market actually works in Europe. The major utilities try to sell forward as much of their future production as they can, up to 2 years in advance. Energy intensive industries are the number 1 buyer for this, as it's very important for them to ensure the energy will be there when they need it. As a result very little of their electricity need is negotiated on the spot market.

This can be seen in the to following documents from RWE :

<http://rwe.com.online-report.eu/2009/ir/1/reviewofoperations/environment/germanelectricityprices.html>

“We sell forward nearly all our in-house electricity generation output in order to reduce volume and price risks”

<http://www.rwe.com/web/cms/mediablob/en/1528080/data/280030/6/rwe/investor-relations/reports/2012/RWE-report-first-half-2012.pdf>

“Electricity also became cheaper in German forward trading. The 2013 forward was priced at an average of €51 per MWh of base-load power and €63 per MWh of peak-load power” and it didn't change from 2 years earlier “sell forward nearly all of the output of our German power plants and secure the prices of the required fuel and emission allowances in order to reduce short-term volume and price risks”

Those forward prices appear to be significantly impacted by the abundance of cheap renewable power (cheap on the spot market where a buyer must be found as they're produced at least). Forward prices actually appear to work more or less as a lock-in of the current average price for one or two years in advance.

So it's true that renewable made the prices cheaper for them, even though the mechanism are more complex and not so immediate as you'd believe

if you watch only the spot prices.

This being said I don't precisely know the mechanisms by which all of this is settled on delivery day, which are obviously complex when several separate utilities had committed to deliver some amount of energy but a part of it is not needed after all because it will be covered by the renewables. The levy on the consumers bill funds a compensation for the difference between the spot and FIT price, but at least in France the compensation is calculated based on an average spot price, which does rise some questions about how all of this is made to be financially well-balanced.

Reply

- [florianbamberg](#) November 12, 2012 at 9:32 pm [Edit #](#)
Interesting point!

I haven't looked into the complaints with the energy intensive industry that much, but they obviously lobbied so as not to lose their privileges: <http://www.dradio.de/dlf/sendungen/umwelt/1902333/> (in German). Also look at <http://www.manager-magazin.de/politik/deutschland/0,2828,851684,00.html>.

Cheers

Florian

Reply

4. [florianbamberg](#) November 11, 2012 at 11:11 am [Edit #](#)
Thanks for your answer, Mr. Lenz – just commented on that on your site.

Reply

Trackbacks/Pingbacks

1. [The German “Energiewende” – Affordable? | Business Astronauts](#) - November 24, 2012
[...] his blog – Energy in Germany – Florian Bamberg does not only criticize these high payments, he also claims that the subsidies [...]
2. [Florian Bamberg Anti-Renewable Propaganda Blog | Lenz Blog](#) - November 11, 2012
[...] Florian Bamberg has started a new blog titled “Energy in Germany” where he spreads some standard anti-renewable propaganda talking points in his first post. [...]

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