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Who Is To Blame For German Increasing Electricity Price?

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More and more complaints on the electricity price push the renewable energy to be a hot political topic. New debate occurs about who is to blame for increasing electricity price? Some holds the view that the renewables develop too fast to pay for, and the Merkel government failed to control the speed and the price. But it is not the case. Speed and price are not the key factors. One of the main failures is the reluctance to face up to adjustment to the utilities' GEP and the exemption for the large scale enterprises.

Fast development VS increasing complaints

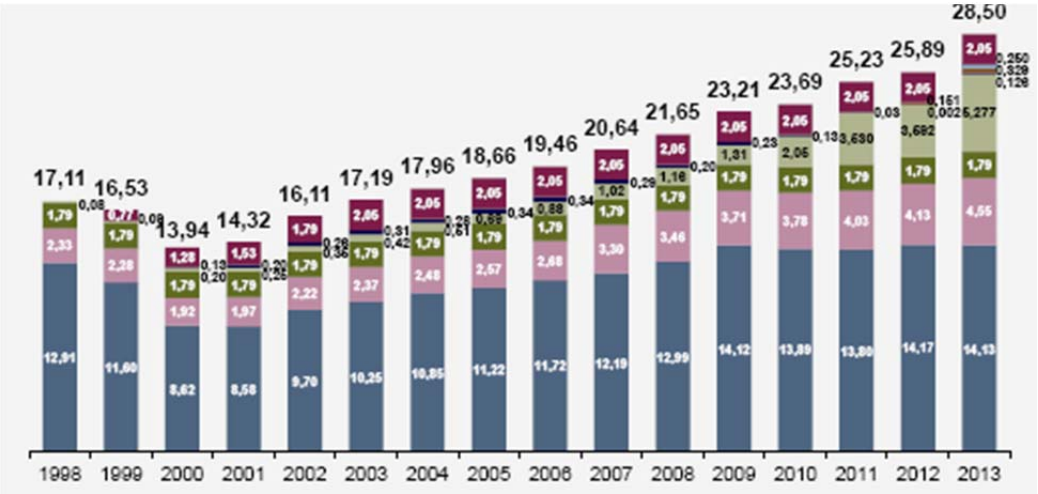
Germany has ever been honored "the world's first major renewable energy economy" by the Renewable Energy World. [1]After the Fukushima nuclear disaster in March 2011, Chancellor Merkel government sped up the renewables development with the first signal of shutting down the eight oldest nuclear reactors (and the remaining nine are due to be phased out by 2022). The government set a target of getting 80pc of electricity from renewables by 2050, which gave the great impetus to the renewable market.

[1] Jane Burgermeister, *Germany: The World's First Major Renewable Energy Economy,* http://www.renewableenergyworld.com/rea/news/article/2009/04/germany-the-worlds-first-major-renewable-energy-economy?cmpid=WNL-Wednesday-April8-2009.

According to the BMU statistics, the electricity generation from wind in 1991 was 100 Gwh and it jumped up to 1500 Gwh, 9513 Gwh and 48883 Gwh in the year 1995, 2000 and 2011 respectively. The total renewables-based electricity generation reached 39181Gwh in 2000 and 123186 Gwh in 2011 from the year 1991 of 16974. The share in the gross electricity consumption was 6.8% in 2000, two times as it was in the year 1991 of 3.1%. And in the year 2011, the RES-E share rolled up to 20.3%, three times as it was in the year 2000. The StrEG and EEG (German renewable policy) greatly stimulated and encouraged the technological learning in the sectors of renewable-chain. [2]

German renewables development is called a great success. However, it's not cocksure that the policy is flawless and sustainable. Figures published in early April 2013 appeared to vindicate Germany's green energy revolution, showing that the country's electricity surplus had nearly quadrupled between 2011 and 2012. However, the figures do not take into account the cost of subsidizing renewable energy, which some estimates put at €14bn .[3] 2010, for household of 3 people about 3500KWh/year, EEG surcharge/KWh is 2.05 cents, while the total price is 23.69 cents. EEG surcharge only shares 8.65%. While later, the EEG surcharge rushed up to 3.53, 3.59 and 5.3 cents in the year 2011, 2012 and 2013 respectively, compared with the total price of 25.23, 25.89 and 28.5 cents.

[2] Data from the BMU, as of July, 2012.
[3] Jeevan Vasagar,



Source:http://www.bdew.de/internet.nsf/id/17DF3FA36BF264EBC1257B0A003EE8B8/$file/Foliensatz_Energie-Info-EE-und-das-EEG2013_31.01.2013.pdf

Roughly around 2010, the complaints about the increasing electricity price spread among the residents. And it even became more fierce with the fast rolling of the electricity price.

The fast renewables development should not be denounced!

No doubt, the increasing share of the RES-E is not the one to blame as the promotion of renewable energy is the national approved approach to phase out the nuclear. Just after the forecast of 2013 EEG surcharge issued (5.3 cents), the poll showed approximately 70% of public is likely to accept some degree of price increasing in order to popularize renewable energy.[4]The development of RES brings the notable economical, environmental and social effects:

In the year 2011, the revenue from the operation of renewable energy installations totally increased to approximately13.8 billion EUR. Among which, wind sector, bio-fuels and biomass sector were the three leading roles, occupied 1380 million, 3670million and 6500 million respectively. while solar sector was far behind with 230 million EUR.[5] In 2011, total GHG

[4] http://www.chinaelc.cn/ch_jishu/xny/2013041063329.html.
[5] Data from the BMU, as of July 2012

avoided (including electricity, heat and transportation) was approximately 130mt CO2 equiv, within which approximately 70mt CO2 equiv. was due to RE-electricity with EEG remuneration. The contribution from wind electricity was 35.2, occupied 27.1% in the total GHG avoidance and 41.8% in the electricity sector. The total employment in renewable related sectors increased to 381600, approximately 138% more than the one in 2004. From figure3.9, we can get a clear glimpse of the effect of StrEG and EEG on contribution of renewable energy sources to energy supply and greenhouse gas emission reductions in Germany in 2011.[6]

Who Is To Blame For German Increasing Complaints On Electricity Price?

As addressed in the EEG, the RES surcharge is national wide allocated. It means that, each domestic energy consumer pays a surcharge on his electricity bills to fund government incentives for green energy. According with the increasing share the RES-E, the surcharge goes up continuously. In 2013, Millions of consumers have to face up to the much more higher price of 5.3 cents EEG surcharge of the total 28.5 cents (retail ,3500 kWh/a). Electricity price became a hot political topic: the political opposition the business laid the blames onto German Federal Government renewables encouragement.But this is not the case. In fact,there are basically two factors made German renewables policy unsustainable.

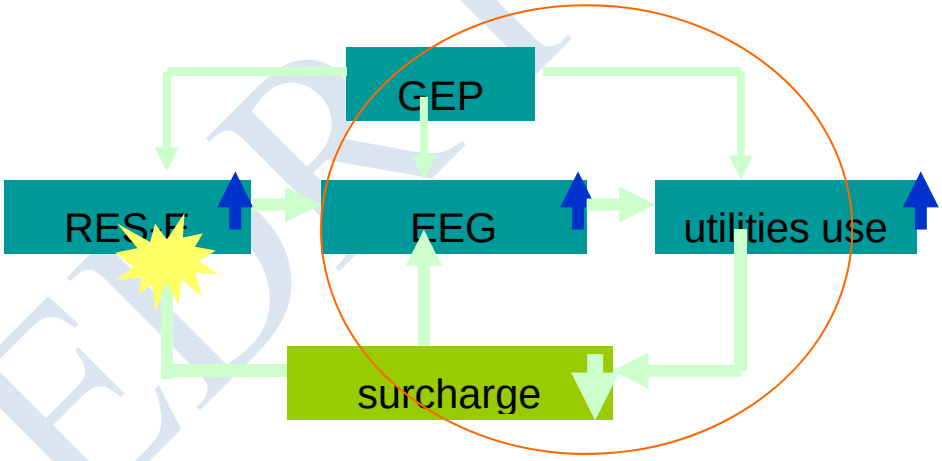
First, the Green Electricity Priority (EEG) is out of date with the rapid increase of RES-E..As EEG2000 section11(4), EEG2004 article14(3), EEG2008 section37(1) defined, RES-E privilege-cap for exemptions from the surcharge, so called the green electricity privilege (GEP). Pursuant to it, the utilities with ≥50% RES-E could be exempted from surcharge.

Utility companies which deliver electricity to final consumers shall purchase and pay for that share of the electricity which their regular transmission system operator purchased pursuant to

[6] Data from the BMU, as of July 2012

the provisions of paragraphs (1) and (2) above in accordance with a profile made available in due time and approximated to the actually purchased quantity of electricity pursuant to Article 4 in conjunction with Article 5. The first sentence above shall not apply to utility companies which, of the total quantity of electricity supplied by them, supply at least 50 per cent in accordance with the provisions of Articles 6 to 11 …[7]

Obviously, the original intention is to encourage the utilities to hold more RES-E in its portfolio. While the expected result is that, given the certain number of final consumers, with more and more utilities to take advantage of GEP with considerable windfall profits, the EEG surcharge goes up further as it is to be paid by a decreasing number of payers. So, now, it goes offtrack despite its correct initial. So we can figure out a vicious circle as the negative impact of GEP as below.



A flaw in EEG's surcharge-sharing regulation
Source: Jiang Wei, Study on Germany renewable policy, submitted to the AvH, July,2011.

Second, similarly, the exemption of surcharge for the business leads to another inequality. As the big businesses are exempted from the charges after complaints that making firms pay would hurt

[7] EEG2004 article14(3), BMU.

Germany's global competitiveness, the costs for householders goes up faster than it should do. This leads to the fierce complaints from the small and medium enterprises as well as the householders. According to the green party, if the surcharge-exemption for the large utilities and enterprises was abolished, the mount of nearly €4 billion would be saved. As the result, the retail price of per kilowatt-hour could be cut down 1 cent.

The adjustment is not alway in the right track!

On the side of the public interest,what the Merkel government does is really to act in a way that defeats its purpose: As the electricity prices rose, Merkel Government expands the category of surcharge free&cutting as its response to the complaints from these enterprises. As a result, currently 730 enterprises became tax cutting consumers. And over 2000 enterprises are expected to apply for surcharge cutting or free in 2013. This inevitably causes even more sharp trend of the electricity price.This is similar to drink poison to quench thirst as it not only enhances the inequality and the complaints but distorts the investment and price as well. The BMU takes measures to adjust the EEG regulations, such as cap-setting on the large-scale renewable electricity production, more frequently adjusting the purchasing price and surcharge- cutting. Till now, there is little evidence showing the products from the measures above.

What are expected?

German renewable policy now is at the crossing. Theoretically, GEP is still an effective method to stimulate the utilities to hold more RES-E as long as it dances to tune of the RES-E development. Three approaches could be applied. One is to set an absolute cap, turning the full-exemption into a limited one, by which the pay-out is lower than the normal surcharge(BMU's approach) to ensure the necessary incentive. It promotes the utilities to hold more RES-E, but meanwhile lowers the surcharge burden of final consumers comparing with the full-exemption case.

But contrasting with the relative cap(using a certain percentage), the absolute cap above has obvious shortcoming: with the rapid development of RES-E, the surcharge increases fast, so the cap can't catch up with the change, it only functions for the first couple of years, and then the windfall profits come again! Thus, the relative cap is needed for diminish the effect from GEP instead of the absolute cap control.

The other approach is just an opposite way of the EEG degression concept, an increase surcharge(but always lower than the general surcharge) is used to prevent the windfall profits. It is an accumulated and fluctuant exemption rate based on the scale, the share of the RES-E and the domestic RES development progress.

The Merkel government would be continuously blamed until it manages to figure out the problems (GEP and the tax-exemption for large-scale enterprise). This is more a big political interest trade-off than a renewable strategy.

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