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EFET Deutschland Position Paper

Capacity Markets and Energy Transition in Germany

Introduction

EFET Deutschland is highly concerned about the energy policy discussion in Germany, which is moving towards consideration of increasingly interventionist measures in the energy market. Increased regulation and central planning of the energy sector sometimes appear to be favoured over market forces.

This line of thinking is misguided as, currently, the German wholesale electricity market is a success. A shift away from a well-developed liberalised market, just as it has become mature and established in Germany, would be a mistake, which would be to the detriment of end-consumers:

- Germany has the highest level of liquidity and the largest number of active competitors of any European Member State. On top of that, cross border competition is much more effective than across the borders of most other countries.
- As a result of this increasingly intense competition, the wholesale price for electricity in Germany now serves as a reference price for many other countries, as well as providing a reliable benchmark for national legislative measures (e.g. the marketing of renewable power according to the AusglMechAV).
- Both German and foreign suppliers and consumers are able to take advantage of the well-developed German wholesale market, which allows them to meet their needs efficiently.
- The German electricity market has, in recent years, delivered a significant volume of new investment in conventional generation plant, even though the penetration of renewable energy has increased strongly. This has enhanced security of supply in the German power market.

EFET is therefore surprised and disappointed that the Bundesrat (Federal Council) in Germany has questioned the functioning of the traded energy market, and followed this with a call for the introduction of capacity mechanisms.

- The achievements of liberalisation will be jeopardised, if rash, fundamental intervention in the market design is undertaken. Current proposals convey the inaccurate impression that the market, with its competitive mechanisms, does not produce the right signals required for investments.

- Wholesale electricity markets have been subject of a number of investigations by competition authorities. The most recent investigation of the Bundeskartellamt, for instance, confirmed no evidence of manipulation in wholesale markets.¹
- In addition, there is no solid evidence supporting some politicians' views that system stability could no longer be guaranteed, because of supposedly insufficient supply of generation capacity on the market.
- Policy and regulation should therefore look to utilise and strengthen the existing well-functioning market mechanisms, in order to facilitate the transformation of Germany's energy industry at lowest economic cost.

Accordingly, EFET Deutschland offers remarks under **paragraphs (1) to (5)** below on potential market design improvements for the German wholesale electricity market, bearing in mind the objective of increasing integration of European markets. All those with a stake in the functioning of wholesale market must be prepared for future challenges, without threatening existing achievements.

(1) Capacity measures with regard to existing energy markets

EFET Deutschland considers the discussion on potential capacity markets to be premature. Currently, no structural capacity issues are evident, even though we share some of the concerns of the Bundesnetzagentur at regional level over the next 2-3 years, after the final shutdown of the "moratorium nuclear power plants". However a general introduction of capacity markets cannot solve short-term challenges of this sort. Modern combined-cycle power plants would need several years for development, approval and construction. In addition, in Germany as a whole, production capacity over the medium term - including recently planned projects - will ensure overall security of supply. The fact that a large part of electricity production is also traded internationally means that looking at Germany in isolation is not a sensible perspective. Within Western Europe as a whole the supply-demand position is even less of an issue for concern.

The existing local issues can be best resolved through network investments. However in the event of further delays in network expansion in the short-term, then it may be appropriate to consider **limited temporary measures in the context of the current market design** to resolve such concerns:

- In this case EFET Deutschland proposes, if necessary, an additional product to be developed as part of the existing reserve market. This could be tendered regionally and may cover a longer period than is usually the case for reserve products.
- It is most important that clear and transparent rules are laid down for such a mechanism. It must be ensured that the reserve capacity will be used only as a last resort in the day-ahead market against the background of security of supply and is appropriately priced. Otherwise, the establishment of reserve capacities might reduce price spikes and thus incentives for the necessary investments in building and maintaining power plants going forward. This would mean in turn that the reserve needs to be extended more and more.

¹ See „Sektoruntersuchung Stromerzeugung – Stromgroßhandel“, Bericht gemäß § 32e Abs. 3 GWB ● Januar 2011, http://www.bundeskartellamt.de/wDeutsch/download/pdf/Stellungnahmen/110113_Bericht_SU_Strom_2_.pdf

It is also crucial to make a realistic assessment of the generation capacity requirement in Germany. A presumption that there should be an objective of a self-sufficient supply in Germany should be out of question in the context of the internal EU market.

- There is no significant risk that all cross-border interconnection points to neighbouring countries would fail simultaneously.
- This requirement can be achieved only with large subsidies and a disproportionate burden on final consumers and/or taxpayers.
- Measures to favour national capacities over those in other Member States are incompatible with a cross-border European electricity market.
- Projects to promote market coupling or cross-border intraday trade and cross-border network infrastructure would completely lose their raison d'être.

(2) Accompanying measures to strengthen the energy markets in Germany

EFET Deutschland calls on legislators and regulators to strengthen the energy markets in order to encourage necessary long-term investments.

Free formation of prices

Power plant investors need certainty that electricity prices will develop according to supply-demand fundamentals, especially as the share of renewable energy is increasing.

- Investments in flexible power plants can only achieve a pay-off if prices are allowed to increase to high peak prices in a few hours per year.
- Periods with a high price level and a lower reserve capacity must be tolerated, because only then sufficient signals for power plant investments are in place. **A clear statement of policy** and regulatory authorities to this effect is necessary.

Market integration of renewable electricity

Plants funded under the German renewable energy law (EEG) should be sold in the market and encouraged to respond to the level of electricity demand.

- Plant operators must have an incentive to adapt their electricity production to the level of demand. A system where renewable producers are responsible for selling their own power into the market (i.e. "Direktvermarktung"), only subsidised via a market premium (now effectively an option in the draft 2012 German Energy Act – "2012 EnWG"), is a first step in this direction.
- In addition, it is important that all renewable power should be bought and sold by all market participants by all available means in the electricity market (including forward markets). TSOs should not be responsible for selling power at all. In this way, competition is possible on the basis of the most efficient marketing strategy. For example, this could encourage market participants to sell a composite baseload product consisting of renewable production and the necessary flexible back-up capacity.

Adequate remuneration of re-dispatch services

The increasing use by TSOs of re-dispatch measures without adequate compensation makes investments in flexible production capacity less likely.

- Re-dispatching disempowers power plant operators regarding flexible operation, so that investments in assets offering flexibility will become unviable.
- An increased use of re-dispatching means economic losses and makes investments in flexible power stations unattractive. On top of that, the 2012 EnWG would allow TSOs to re-dispatch generators without first making use of market-based measures. This will distort market prices.

Investments in flexible capacity will only occur when a reasonable compensation for re-dispatching is available based on market prices. Thus there needs to be adequate compensation for the provision of flexibility.

Strengthening of the balancing and reserve markets

Balancing energy is important for compensating inevitable forecast errors in fluctuating production.

- This can be done economically only if the balancing energy market is designed as a centralized market where all flexibility products can be offered.
- So-called "core shares" requested by TSOs are not suitable for an efficient pan-German and European energy market. This leads to less transparency and liquidity, and greater market concentration.
- The procurement of balancing energy across different markets (tenders or bilateral agreements) shrinks the liquidity of the markets. This also leads to less transparency, greater market concentration and higher costs for final consumers.

The **Federal Network Agency does not therefore need to make use of § 22, paragraph 2** of the existing Energy Act to "provide other transparent, non-discriminatory and market-oriented procedures for the procurement of balancing energy", but instead should further develop the existing balancing energy market in accordance with existing regulations.

Promotion of network expansion

In Germany as elsewhere, shortages are most likely to arise in localised areas as a result of a lack of interconnection lines (either national or cross-border) rather than insufficient production capacities. It is important that the network expansion has the **full and active support** of network operators, the regulator and the wider political community.

The expansion of transmission networks is nonetheless only one alternative. **We recommend all options should be assessed within an integrated concept, taking technical and economic know-how into account (e.g. distribution network expansion, expansion of cross-border interconnections, measures such as demand side management, flexibility improvements in power plants or electricity and heat storage).**

(3) Strengthening of energy markets in other European countries

Energy-only markets can provide sufficient generation capacity if ex-ante intervention in markets is avoided. Existing and planned capacity markets in other Member States have only been perceived to be necessary because a really free and liquid market has not been built and investment signals have been constrained.

- **Capped consumer prices** in several countries lead to insufficient investments ("missing money").
- **Limited peak prices** on the wholesale market prevent peak load power stations from being profitable without subsidies.
- In some Member States **uniform (Pool) consumer prices** also withdraw the incentive from consumers to adapt their consumption to prices (which would give scarcity signals).
- If **regulatory interventions determine operation** of diverse plant types (in particular nuclear or hydroelectric power), the market becomes disrupted. This has a deterrent effect on investments.

EFET Deutschland welcomes efforts by German policymakers to promote the further liberalisation of the electricity sector in the EU Member States concerned and throughout Europe.

(4) Regular monitoring of security of supply is important and must take place at European level

Regular and transparent monitoring of security of supply will indicate whether the current market mechanisms ensure a sufficient level of installed capacity and flexibility in the short and long term. In the future, early results of this monitoring could be analysed regarding benefits of changes in market design and allow a wide consultation process, particularly when major changes are discussed, for instance the creation of capacity markets.

The European electricity market is an integrated market, which is why the monitoring must not be based on a stand-alone German system. A purely national approach in each Member State would lead to overestimation of consumption needs. Also the problem of fluctuating supplies of renewable energy would be exaggerated.

(5) Market-protecting capacity mechanisms

If policymakers and regulators do decide there is a need for the introduction of capacity mechanisms, these mechanisms must be designed to **avoid market disturbances**.

- **Minimization of market distortions:** capacity measures must be designed as they have the least possible impact on the bidding behaviour of participants.
- **Time limit for transitional measures:** capacity measures should only be used to compensate market distortions. If this intervention is inevitable at some point, everything must also be made to eliminate these disturbances, so that the market is functioning again. The challenge is to abolish the capacity measure as quickly as possible again.