

Energy 2013:

Competition in times of the Energiewende

65th Special Report of the German Monopolies Commission
pursuant to Sec. 62 Abs. 1 Law on the Energy Industry

**Recommendations for a successful and efficient
realization of the Energiewende
(Excerpt from Chapter 3.6)**

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3.6 Recommendations for a successful and efficient realization of the Energiewende

408. The Energiewende [Energy Turnaround] venture pertains to a multitude of problem areas on several political levels and in different parts of the energy sector. All the while, the ecological objectives must be kept in mind which the changes projected by the Energiewende are meant for. Thus, in the German endeavours towards realization of the Energiewende, the actual effects on the reduction of greenhouse gas emissions should take centre stage. It is in this context, however, the most significant problems of the Energiewende surface if one loses sight of the fact that national endeavours towards CO₂-reduction must remain without effect, as the level of CO₂-emissions in Europe is already governed by an emissions trading scheme. National endeavours towards greenhouse gas reduction therefore should be coordinated on a European level and intertwined with the emissions trading scheme; their ecological effects should be evaluated. Against this backdrop, the Monopolies Commission views as the most important tasks, on the one hand, the reconciliation of German and international objectives and, on the other hand, the efficient pursuit of the German policy objectives.

409. The EEG (German Law on renewable Energies) foresees energy production from renewables of at least 35 % until 2020 and of at least 80 % until 2050. Changes in the market design and reductions of impediments to competition are necessary in order to attain this target quota in a more cost-efficient way than to date and under continuous security of supply. The increase in renewables is mainly due to their furtherance on the basis of the EEG. The EEG's conception has proven successful in terms of target achievement while showing significant efficiency deficits, in particular due to excessive subsidies for inefficient technologies. Hence, an amendment to the EEG is absolutely essential. The Monopolies Commission recommends that the competitive process decide on the eligible technologies and on the correspondent financial demands for the installation of new renewables plants. For this purpose, the EEG should be remodeled so as to introduce a quota model following the Swedish example:

- In a revised furtherance scheme, the target amounts already fixed in the EEG should take centre stage and determine the demand of new renewables plants. An increasing share of renewable energy should thus be mandatory for energy traders and certain end consumers; compliance should be verified on a yearly basis. Hence, costly over-achievement could be avoided.
- Producers of renewable energy will receive renewables certificates. These will be traded on a specific market and – on the basis of a renewables certification obligation for traders and consumers – will ensure the increase of renewable energy by a certain amount. The resulting price for the renewables certificates corresponds to the efficient amount of subsidies necessary for the Energiewende's objectives.
- In time of negative exchange prices no certificates will be issued.
- Each year, certificates used for compliance with quota obligations will be annulled on a specific date. Unused certificates should remain valid, non-fulfilled quotas should be priced at 150 % of the average certificate price.
- For a transitory period, operators of small plants (e.g. up to 100 kW) should retain the possibility to entrust transmission network operators with energy marketing against remuneration.

410. In case political considerations should favour a retention of the EEG's existing furtherance scheme for the time being, the Monopolies Commission considers necessary, in a first step, to extend the existing direct-marketing model within the framework of the EEG-market-premium (“Marktprämie”) in an efficient manner. In the future direct marketing should represent the only furtherance model for newly built plants. In order to stimulate competition between renewables technologies, a single fixed price should be set as the basis for determination of the future market-premium. In times of negative exchange prices, no consideration should be paid, in order to reduce the cost-increasing incentives of energy production during these periods. In order to reduce the possible damage due to a fixed price which has been set too high, yearly amount-based limits should be introduced in view of the registration of new plants.

Concomitantly to this approach, the prohibition of dual marketing pursuant to Sec. 56 EEG should be abandoned. Operators of renewables plants should have the possibility to independently make use of the value which the production of energy from renewable sources has for consumers on the market, by issuing tradeable certificates of origin, which in fact would afford them extra consideration. The trade of certificates of origin and the corresponding extra consideration would allow for a reduction by trend of the market premium and, thus, of the EEG contribution (“EEG-Umlage”); which in turn ultimately lowers the energy price. The law may, at least for a transitory period, continue to entrust the transmission network operators with energy marketing – e.g., for small private plants. In such case, the proceeds from the trade in certificates of origin should be used for an increase of plant operator remuneration and for a reduction of the EEA contribution, each by half.

411. The proposed modifications to the furtherance of renewables facilitate the estimation of plant capacity of newly built installations, and of the amounts of to-be-transported energy. This implies additional positive effects on those costs which derive from the necessity of adaptations to the energy networks. Besides, the abolishment of subsidies in times of overproduction (negative exchange prices) will put an end to the necessity of transporting energy for which no demand exists.

412. In finding solutions for network bottlenecks, the focus should not lie – lopsidedly – on network expansion. A whole set of alternatives to network expansion exists, which definitely should be incorporated more widely in the planning of network expansion. Hence, the Federal Government should examine to what degree the necessary network expansion could be efficiently reduced by additional measures. The Monopolies Commission, particularly, proposes to introduce a network charge, respectively a network premium to be paid by energy producers designed to steer the installation and deconstruction of conventional and renewable energy plants in space. Such a network fee component (G-Component) could be construed in the following way:

- Within the framework of the yearly network evolution plan, transmission network operators identify network bottlenecks, subject to approval of the Federal Network Regulatory Agency (“Bundesnetzagentur”). Transmission network operators, in addition, calculate the long-run marginal costs, the marginal benefit of network load, and the network load removal resulting from the feed-in in different network zones.
- Based on this analysis, the transmission network operators define pricing zones for which a positive or negative network fee component (G-Component) is

calculated (EUR per fed-in Megawatt hour). Positive and negative payments should be calculated such as to level each other out over one year; thus, the G-component in the end neutrally steers the additional installation of plants in space.

- Producers of conventional and renewable energy should pay a yearly fee in the future, which is calculated according to their feed-in and derived from the G-component. In the alternative, they should receive a premium. For operators of renewable energy plants, the financial clearing of the G-component could be integrated, with relatively little expenditure, into the clearing of the EEG subsidies and of the market premium.

413. Currently, the question may not definitely be answered whether, in order to maintain security of supply, additional mechanisms will be necessary to complement the existing energy wholesale by capacity components in the long run. Existing concepts of capacity mechanisms are designed to ensure that production capacity is sufficient, also in the future, to ensure energy supply even under very adverse conditions. The installation of such mechanisms would constitute a serious market interference and give rise to tremendous costs, whereas the demand for such mechanisms is, nonetheless, not sufficiently substantiated. Taking this into account, a cautious approach is preferable:

- The demand for capacity mechanisms should be evaluated continuously by the (independent) Market Transparency Unit ("Markttransparenzstelle", which collects production, trade and consumption data in the energy market) and on the basis of market observations of the Federal Network Regulatory Agency.
- For the short term, a small strategic reserve from legacy and newly constructed plants should be set up, which is activated at a trigger price as high as possible, in order to influence the existing market as slightly as possible.
- In case a larger capacity problem should become foreseeable on the basis of the market observations, the strategic reserve could be increased as a first step while, in the mid-term, the transition towards a capacity market system could be planned.
- In the meantime, a concept should be fleshed out for a subsequent development of explicit capacity markets. Moreover, an internal market for the trade of the necessary capacities could come into existence, as is already the case with the increasing interconnectedness of energy wholesale markets.

414. The German endeavours towards realization of the Energiewende are focusing on an increase of the share of renewables in German energy production with a view to replacing nuclear power. To achieve this objective, the Federal Government should pursue an integrated approach, and address the several problem fields not dogmatically, but taking into account interdependencies of economic policy. The mere fact that renewables will (continuously) require furtherance entails that the realization of the Energiewende will ensue in direct cost increases. Further costs will result from effects on downstream markets and on different stages of the value-added chain. In order to keep the burden for the economy and private consumers as small as possible while safeguarding security of supply, a sustainable and competition-friendly advancement of the existing market design should immediately be implemented.