

» Thinking ahead with the Energy Transition – Future Framework Conditions for Electricity, Heating and Mobility«

bne's proposals for the 19th legislative period of the German Bundestag

Berlin, 29. June 2017. After the German Parliament elections in September 2017, the course of energy policy will be set anew. The coalition agreement will have to answer landmark questions for a sustainable climate protection and energy policy. The Association of Energy Market Innovators (bne) presents key proposals that need to be taken into account when designing the future framework conditions for electricity, heating and mobility.

1. Anchoring the Paris Agreement

Binding common goals have been agreed in national and international treaties to halt global warming and drastically reduce emissions detrimental to the climate. The Paris agreement must therefore be reflected in European and national climate protection goals. The medium- and long-term climate protection goals and measures are to be adjusted in such a way that at least 95 percent greenhouse gas emissions reductions will be achieved by 2050 at the latest.

2. Securing competition in the energy transition and expanding it for new business models

Despite successful liberalization, Germany runs the risk of falling behind in the competitive design of the energy transition. The separation of the regulated network monopoly from the competitive areas of generation, trade, metering and services has never been sufficiently implemented in many areas of the distribution networks. Especially against the background of decentralization, where generation, digitization, aggregation and metering take place at the distribution network level, fair competitive conditions are indispensable. Non-neutral network operators can exploit the information advantage from the network business for new, competitive business models for themselves or associated company parts. As a first step, therefore, the exemption rule with regard to legal and operational unbundling must be reviewed and, as a second step, the limits of the de-minimis clause must be successively reduced.

3. Making the electricity market more flexible

Renewable energies are increasingly shaping the electricity market. Wind and PV systems play a key role here. The electricity market must be better able to react to their volatile feed-in of electricity in the future. A key to solving this challenge lies in linking generation and consumption via an automated metering and control infrastructure. If appropriate adjustments were made, both the Energy Industry Act (EnWG) and the Act on the Digitization of the Energy Transition (GDEW) would offer the ideal scope for a technology-open liquid flexibility market.

By means of a nationwide uniform regulatory framework, flexibility potentials should be made accessible and new business models should be made possible, while local network situations should be taken into account at the same time. The exception rule for network charges offers a good starting point: A bonus-malus system (without additional costs compared to the status quo) rewards those who behave in the future in a grid beneficial manner. For such a flexibility mechanism, the implementation of the ordinance authorization of § 14a EnWG and the reorientation of § 19 (2) sentence 1 StromNEV (atypical grid use) and § 19 (2) sentence 2 StromNEV would be important steps forward. The regulations on aggregators must be implemented and successively developed further. An additional necessary step is the adaptation of the incentive regulation in order to ensure openness to technology and transparency. It is equally important that, with a view to greater flexibility in the distribution network, efforts are made to combine the management of distribution networks in order to ensure sufficiently large and efficient distribution network units.

4. Thinking the energy transition in all sectors

The first phase of the energy transition comes to an end with the phase-out of nuclear power, the phase-out of coal and the massive expansion of renewable energies. The next phase will be marked by megatrends such as decentralization, digitalization and disruption. Despite extensive efforts and discussions in the last legislative period, a master plan for an energy transition in the true sense of the word is still missing. All approaches to a transition in heating and transport in addition to the transition in the electricity sector have so far remained piecemeal. Also in the power sector a convincing overall concept is missing so far, which joins the single puzzle pieces together to an overall picture. The key task of the new Federal Government is therefore to present a consistent strategy for the next phase of the energy transition.

Decarbonisation must take place across the electricity, heating and transport sectors. The required 95 percent emission reduction by 2050 can only be achieved by sector coupling. For this we need a smart legal framework in the individual sectors and their interaction. The development path of various technologies and solutions points the way to a "power-based system" that also largely electrifies the heating and transport sectors. The framework conditions for power-to-x plants and conversion technologies must therefore be improved. Conversion technologies support the system integration of renewable energies and enable decarbonisation in areas where a direct electrical energy supply is not possible or not economical. In addition, regulatory barriers for electricity and thermal storage facilities must be removed and these storage facilities must be embedded in a consistent legal framework for flexibility, so that they can follow an economically optimal development path against the backdrop of the energy transition with consistent sector coupling.

Energy efficiency ("efficiency first") must no longer be played off against flexibility. It is no longer crucial to only reduce energy consumption across the board. Using energy at the right time is more important today than saving energy at the wrong time – and even more so in the future.

5. Getting the heating market moving

A goal-compliant heat transition can only gain momentum if the serious distortions of competition between conventional and renewable heat generation technologies are eliminated in a first step. Subsidies for oil-fired heating systems undermine any climate policy efforts. The direct use of self-produced electricity from renewable energies in particular must not be restricted. A level playing field is essential for fair competition in the heating market.

The electrification of the heating market is a major contribution to decarbonisation. However, the seasonal nature of heat demand poses a significant challenge to the energy system. However, Power-to-CleanGas technology provides an important long-term storage option that needs to be rapidly developed further.

6. Developing E-mobility into a showcase

One in three jobs in the EU car industry is in Germany. The car is of immense importance for the business location. With the climate protection goals, the challenges for the future are growing. But German car manufacturers are lagging behind in terms of E-mobility. However, competitiveness depends massively on national development. Germany will therefore have to pick up speed in the field of E-mobility. A binding European sales quota obligation for every car manufacturer for the year 2025 is a first step. Because the regulatory framework for E-mobility is also too narrow, further steps must follow. This includes, on the one hand, the integration of energy industry regulations and requirements (e.g. for load control) with the requirements of information and communication technology and the actual requirements of mobile applications. On the other hand, pragmatic certification criteria for E-mobility would be important indicators for the success story in Germany.

7. Reforming the system of network charges, fees and levies

Approximately three quarters of the consumer electricity price are state-induced or regulated price components. The high burden of taxes, charges and levies puts electricity at a competitive disadvantage compared to other energy sources; at the same time, the existing grid fee system inhibits the use of flexibility in the electricity market. With the necessary reform of the network charge structure, considerations such as the replacement of the current system using capacity fees (*Leistungspreise = EUR/kW*) combined with energy prices (*Arbeitspreise = EUR/kWh*) by a fixed grid connection charge (*Netzanschlussentgelt*) or the possibility of an infrastructure charge (*Infrastrukturbeitrag*) to be paid by each property are pointing in the right direction. Smartly defined framework conditions can help avoid distortions for individual consumer groups and disruptions for network operators. All in all, a socio-politically convincing concept of fair cost allocation must be presented.

Solutions for the renewable energy surcharge or EEG levy must also be developed. By reallocating EEG costs, including the heating and transport sectors, the EEG levy on electricity consumption can be reduced. Differentiating the burden on energy sources according to their CO₂ emissions can guide investments and use towards clean energy supply solutions.

8. Establishing the EU framework for a national decarbonisation policy

The European framework conditions in the market and design of the support systems should encourage a rapid and ambitious energy transition. Many proposals of the energy package presented by the EU Commission "Clean Energy for all Europeans" in November 2016 are already pointing in the right direction. A stronger and more flexible internal electricity market throughout Europe is essential for the further development of the European internal market. The opening of electricity markets to all suppliers and technologies, market access for all players, effective price signals, data access for all service providers and the optimal use of flexibility at local and central level are key concerns (of the EU Commission) and should be supported.

9. Quickly reducing inflexible fossil fuel power plant inventories

The potential of renewable power generation still cannot be fully exploited because it is increasingly being curtailed due to network constraints. In addition to the lack of grid expansion, inflexible conventional power plants contribute to unnecessarily high redispatch and feed-in management costs and thus make the energy transition more expensive. This is to be corrected by establishing an appropriate level playing field between the individual energy sources, whereby renewable energies in particular can displace CO₂-intensive power generation.

Since 2012, however, the price of one ton of CO₂ has been oscillating around five euros. Because the European Emissions Trading Scheme (ETS) is unfortunately not able to offer effective CO₂ prices due to its architecture, ambitious CO₂ pricing should be introduced as soon as possible. A first step is the introduction of a national minimum price for CO₂ in the electricity generation market of approx. 30 Euro/t CO₂, which is to be gradually increased.

In addition, CHP plants must comply with the flexibility requirements. A heat-guided cogeneration system that is inflexible on the electricity side and which may be managed in a grid-straining "heat must-run" manner (combined with fluctuating renewable generation) has no future in the energy transition.

10. Leading renewable energies into a self-sustaining market

The EEG is based on a feed-in system that continues to push part of new production volumes into the system via a risk-free, market-distant and state-regulated remuneration. However, the EEG must be developed into a market-affine system with competitively determined prices on the one hand and a system that works on the basis of demand on the other. The drivers of this demand can be the decentralised local supply as well as the heating and mobility sectors, which



generate a pull effect from the market due to the growing demand. The price of electricity thus regains the necessary signal effect to trigger reactions from trading, storage, generation and consumption without the need for a regulated electricity price component which aims at strengthening the price signal.

11. Enhancing support for innovations and energy start-ups

The energy transition is an innovation project: Many new companies have developed ideas for electricity, heating and mobility solutions in recent years. We must continue to promote and develop this business start-up spirit and mentality, the courage to try things out. It is fundamental that founders can rely on fair market conditions in order to lead their business models to success in competition. An environment that facilitates business start-ups as well as the existence of support programs such as EXIST are also of great importance.

Who we are: Bundesverband Neue Energiewirtschaft e.V. (bne) / Association of Energy Market Innovators – a strong voice for independent energy companies
Since 2002 bne has stood for market, competition and innovation in the energy industry. Our members develop pioneering business models for electricity, heat and mobility.

Interest Representative Register ID: 3394645201-03