A reliable and sustainable energy supply is a fundamental condition of economic development and growth. In recent years, however, there have been two new developments that have called a secure energy supply into question. First, global climate change has already begun and catastrophic consequences are looming, in particular for the poor in the Third World. The predominant cause of this is the still growing utilisation of fossil fuels. Second, the profound transformation of the energy market – the consequence of the dramatic growth in demand (in particular on the part of the fast-developing nations in Asia), the state-monopolistic approach of the raw materials countries, the shareholder-value oriented strategies of private energy companies, as well as the looming exhaustion of oil reserves – has given rise to a situation in which the satisfaction of demand is a matter of constant anxiety. Furthermore, the remaining oil and gas reserves are increasingly concentrated in politically unstable regions. The market will continue to develop into a power instrument of the producer countries, the consumer countries will be drawn into a situation of asymmetric dependency and market forces alone are unlikely to be able to overcome current distortions or reduce tensions.

Climate change and the transformation of the energy market demand nothing less than the profound reorganisation of the basis of industrial society as regards energy. This reorganisation cannot be managed by individual nation-states. Only close regional coordination between the countries most directly affected – primarily the energy consumer states – will work. Such reorganisation is a »short-term long-term task«; it must begin now, but must be maintained with sufficient intensity to avoid the dangers that in the coming decades could develop into a catastrophe. Its aim is the reduction of global demand for fossil fuels, their more efficient use and their substitution with carbon-free or at least reduced carbon modes of production.

1. One condition of the energy reorganisation of industrial society is that decisions are taken on general principles or orientation, and are implemented both regionally and internationally. Their main purpose is to anticipate negative consequences; what is needed therefore is the establishment of a global risk management that must be established by means of diverse negotiation agendas. The transition process that must be set in motion requires organisation and control. As a matter of priority transition formulae should be developed that ensure a single-minded convergence towards climate and resource policy targets with simultaneous maintenance and further development of the industrial system. Democratic parliaments, governments and organised civil society should, jointly with the energy industry and energy R&D, participate in this organisational task in the form of political dialogue.

In its recent work, the Friedrich-Ebert-Stiftung’s Division for International Dialogue has focused on the prospects of European Economic and Social Policy, European Foreign and Security Policy, European Neighbourhood Policy and International Security Policy. These theses are a contribution to the political positioning within the above-mentioned fields. They also seek to outline future challenges and topics.
2. One should expect neither fundamental changes of course nor management of the transformation process from markets or shareholder-value oriented enterprises. Therefore the state must set targets and lay down limits. A long-term exit policy on the part of the Western industrialised countries, abandoning an energy mix with oil as the most important energy source would be a key aim. By means of notice given well in advance (for example, in the form of the decision not to permit new cars that run on fossil fuels from 2030) a fundamental transformation could be brought about through mobilisation of the requisite scientific and technological resources. Such an ambitious aim is comparable with the American desire to put a man on the moon in the 1960s. To realise it, the mechanisms of a market economy take on particular significance. This also includes the consistent implementation of antitrust provisions against oligopolies, cartels and market dominating alliances of large companies.

3. The development of technological alternatives to fossil fuels acquires decisive significance because in technological terms a new energy basis for the industrialised countries so far exists only in embryo. Energy research and the new and further development of energy technologies, both nationally and also in international alliances, must therefore be given the highest priority. Of equal significance is the utilisation of energy saving as an energy source. Since limited time is available a targeted research and technology policy, as well as a strategically oriented innovation management are necessary.

4. It is often forgotten that even if the energy system was reoriented towards a system not primarily dependent on fossil fuels without further ado, the current problems and risks related to high fossil-fuel dependency would continue for several decades. Because production of oil and gas is falling off in the OECD countries, by 2020 half of all oil and gas production worldwide will come from countries that today lie in high risk zones. Energy security will therefore largely depend upon whether it proves possible to prevent tensions, crises and international conflicts that hinder the flow of investment and resources: active conflict management is called for. This necessarily includes also new development policy concepts that help the poorest countries, those most affected by the energy crisis, to ensure their energy supply.

5. The short-term risks for energy security (catastrophes, terror, conflicts, war) can be controlled by means of strategic reserves, cooperation and the institutionalisation of solidarity mechanisms. For this purpose, however, the EU’s reserves policy, including the member states’ access rights, must be developed further. In order to increase flexibility, and so for greater security, steps towards the integration of the European electricity and gas markets would be of decisive importance. The infrastructural conditions for this are currently unsatisfactory, particularly in relation to gas. They must urgently be improved.

6. In the medium term demand for fossil fuels will remain high until the reorganisation process begins to take effect. In this phase the greatest possible diversification of supply countries and means of transport will help. Only direct and secure access to production regions and a broad range of suppliers can increase energy security and improve the market position of the consumer countries. As important as Western Europe’s linking up with the Russian gas deposits is in this connection – via the Baltic pipeline – it contributes little to reducing the dependency on individual supplier countries. Diversification into the Central Asian and Near Eastern production regions, made possible by the Nabucco pipeline and liquid gas terminals, would be an important contribution to greater energy security.

7. Many countries rely on direct economic, political, diplomatic and even military influence over energy rich regions to secure their energy supply. The dominant approaches are aimed at extending influence and building up positions of power. Cooperative efforts, whether within the European framework or towards the creation of more extensive governance structures directed towards a secure energy supply for all, in practice play no role, however. The prioritisation of bilateral procurement diplomacy – in contrast to cooperative solutions – and the use of energy as an instrument of power by exporting countries are fostering an increasing politicisation of energy markets. The various lines of conflict and antagonisms (great power conflicts, North–South conflicts, producer–consumer conflicts, large-consumer competition, and so on) represent a high level of potential danger. In these circumstances Europe should assume an active role as catalyst of a fair and effective multilateralism.

8. Europe’s energy policy room to manoeuvre is limited. The energy policies of EU member states are poles apart – a common EU energy policy exists so far only in embryo. Energy policy competences lies with the member states and the Energy Commissioner’s attempts at coordination often come to nothing. A change is needed here that comprises at the very least the supplementing of national jurisdiction through EU-wide competences. Energy policy mentoring between the advanced industrial countries and, in particular, the transition countries could drive forward the convergence of individual states and contribute to an energy policy increasingly coordinated within the framework of the EU. The coordinated diversification of energy sources and delivery structures is a further important element in a common energy security policy.

9. The kind of energy use has an enormous influence on current climate change. Therefore reorganisation in favour of more climate and environment friendly sustainable energy forms should be striven for at all levels and stages of the energy industry, that is, in the extraction, processing and use of energy. The environmental footprint could be brought into play as a long-term benchmark.
Instruments of reorganisation include tax incentives favouring regenerative energy production and use; massive encouragement of research into energy-saving technology and processes, in particular in the heating, cooling and transport sectors, as well as in combined energy use (including combined heat and power units); reorganisation of education and training policy, as well as public pressure towards energy-conscious consumer behaviour. Furthermore, the development of new concepts and instruments for shaping future mobility taking into consideration energy and climatic aspects, for example, in the case of the phenomenal growth of air travel.

10. The industrialised countries have an historic responsibility and the scientific and technological capacities to be in the vanguard. However, reorganisation in only one country or in one region makes little sense. Binding production standards and trade policy support for them must constitute the goal of international regulation. The global implementation of market mechanisms for the inclusion in production costs of the unforeseeable costs of climate change, as permitted by the trade in CO₂ certificates, here represents an important approach to a solution. The most recent initiatives of the EU environmental commissioner point in the same direction. Environmental damage, in particular CO₂ emissions, must come at a price, and indeed throughout the world.