



The energy transition: key projects of the 18th legislative term

Continuation of the 10-point energy agenda of the Federal Ministry
for Economic Affairs and Energy

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Introduction

Germany's energy transition will make our energy supply more secure and more environmentally friendly, whilst remaining affordable, since we are making ourselves less dependent on expensive imports. Last year's reform of the Renewable Energy Sources Act, including the special equalisation scheme, have made the Act fit for the future, have laid down a challenging expansion path for renewables, and have ensured that electricity-intensive manufacturing in Germany remains competitive.

At the end of 2014, the progress report told us where we stand, and reviewed whether the goals of the Energy Concept are being attained. There is a particular need to act on energy efficiency and climate change. We are addressing this in the National Energy Efficiency Action Plan, and are thus making energy efficiency the second pillar of the energy transition.

In the coming years, renewables will become the dominant source of electricity. This will launch a new phase of the energy transition. This results in the challenge of an optimal and low-cost integration of electricity generation from renewables with a flexible generation of electricity from fossil fuels, the use of other flexibility options on the supply and demand side, and the expansion of the grids. Not least, the White Paper will put key preconditions in place for the electricity market.

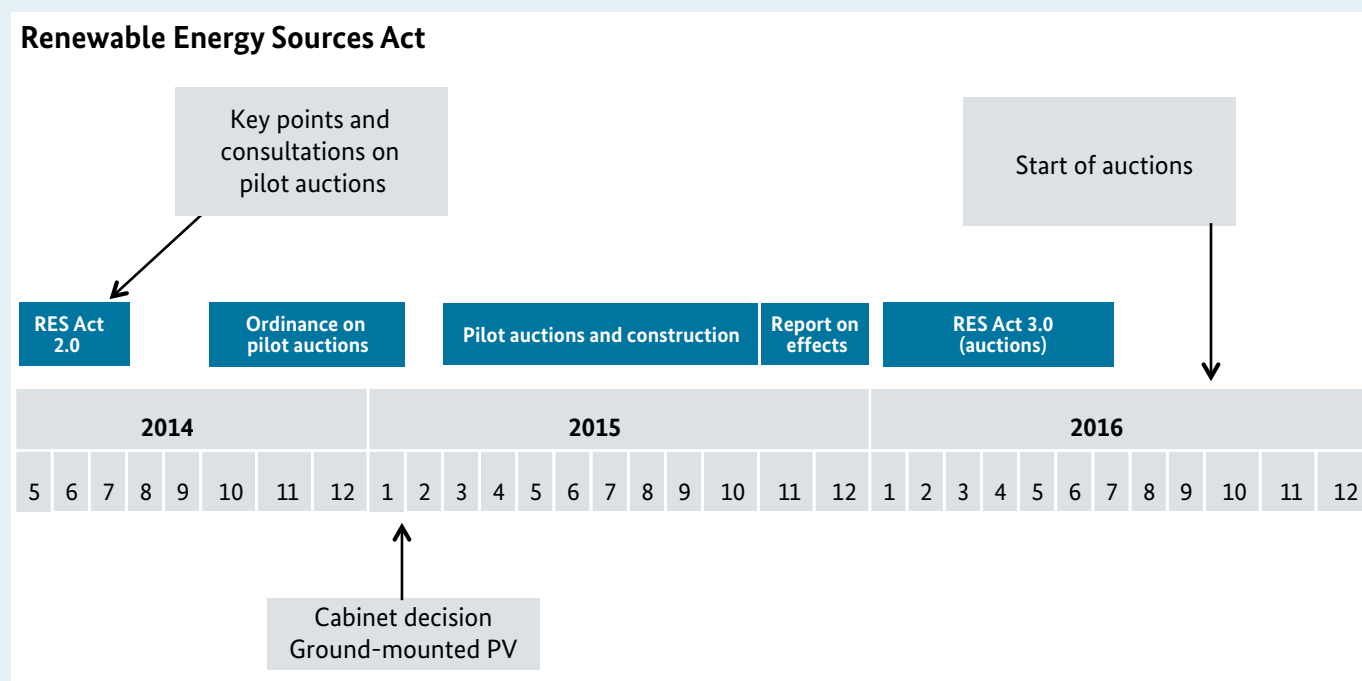
The 10-point energy agenda contains the key projects of the energy transition during the 18th legislative term. In addition to the projects in the electricity sector, it also contains the main projects for energy efficiency and in the building sector, as well as our gas supply strategy. The agenda integrates the various fields of action in terms of substance and timing. The 10-point energy agenda was published on 26 June 2014. This paper is a continuation of that publication.

The energy transition: key projects

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1. Renewables, Renewable Energy Sources Act

The 2014 revision of the Renewable Energy Sources Act has created the basis for testing out the competition-based promotion of renewables. To achieve this, we presented the ordinance governing pilot auctions for ground-mounted photovoltaic installations in January 2015. On that basis, we wish to implement the pilot project in 2015 and then assess it in a report on the effects. We will then feed the findings into the Renewable Energy Sources Act. The revision of the Renewable Energy Sources Act, which is slated for adoption in 2016, is intended to put the rules in place for the level of funding for renewables (all technologies) to normally be set by auction.

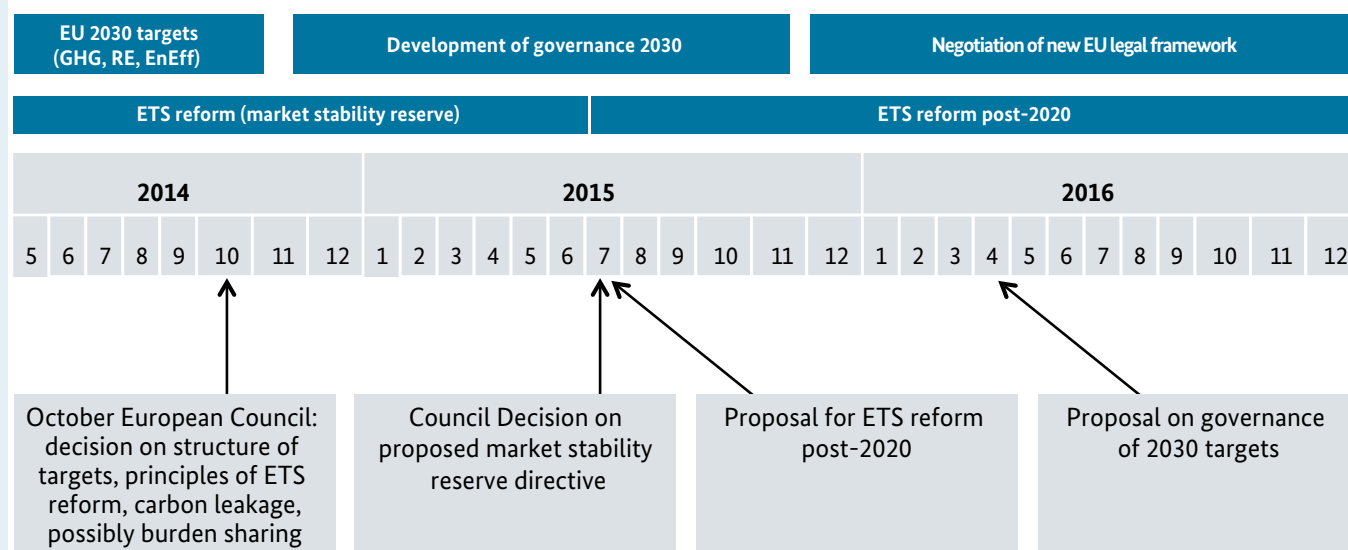


2. European Climate and Energy Framework 2030/ETS

The decisions of the European Council of October 2014 on the European climate and energy framework 2030 and the reform of European emissions trading are of key strategic significance for the direction of European and national climate and energy policies, and thus for the successful implementation of the energy transition. The decisions continue the three-target policy adopted under the German EU Council Presidency and provide for a binding EU climate target of at least a 40% reduction in internal EU greenhouse gas emissions (against 1990), a separate and binding EU target of 27% for the proportion of renewables in energy consumption, and an energy efficiency target of at least 27%. The decisions now need to be implemented in the form of a robust and reliable governance framework which ensures that the 2030 targets are attained. Furthermore, a reform of emissions trading and the continuation of the effective rules to protect the international competitiveness of industry were adopted.

Emissions trading must be reformed in order to provide adequate incentives for investments in measures to reduce greenhouse gases. We therefore support the proposal to introduce a market stability reserve for a rapid and sustainable reform of EU emissions trading which will help to stabilise carbon prices and to avoid excessive volatility. The existing draft directive on the market stability reserve should be adapted accordingly, and could be adopted at European level in mid-2015. We believe that there must be a much earlier start to the mechanism before 2020, i.e. from 2017, and a transfer of the backloading quantities into the market stability reserve. The decisions by the European Council of October 2014 for the climate change target must be implemented conceptually and must feed into an overall package of directives for ETS post-2020. In particular, we are in favour of a continuation of the rules to prevent carbon leakage which ensures that companies do not relocate on the grounds of climate change mitigation measures.

EU 2030/ETS

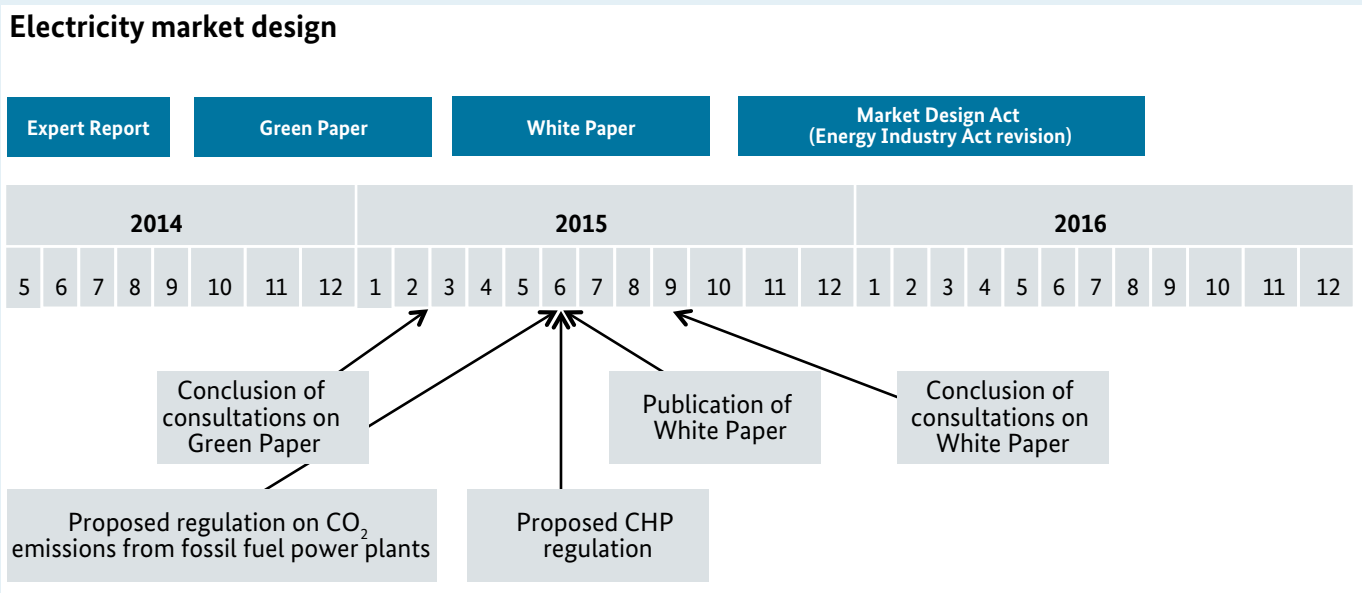


3. Electricity market design

The future electricity market design is intended to ensure an efficient deployment of power stations in the face of growing shares of renewables, whilst maintaining energy security. On the basis of several studies and in-depth discussions at the Electricity Market Platform, we presented a Green Paper flagging various options and their pros and cons. The public consultation is to be followed by a White Paper in which specific measures are proposed. Implementation in the form of acts and ordinances will follow. In parallel, we are engaged in discussions with our neighbours and the European Commission, since common solutions in the context of the internal market offer cost advantages and enhance energy security.

The question of the future rules governing combined heat and power generation (CHP) is closely related to the power plant fleet and the electricity market design. It is important that the CHP funding fits in with the future electricity market design. We therefore want to dovetail the two decisions. Once the basic decision has been taken, we will swiftly adapt the CHP Funding Act.

If we are to achieve the national climate target by 2020, all the sectors will have to contribute to further reductions. A further 22 million tonnes of CO₂ are to be cut, with special attention being paid to the electricity sector and to the European trade in certificates. We will also present proposals for this in the summer.

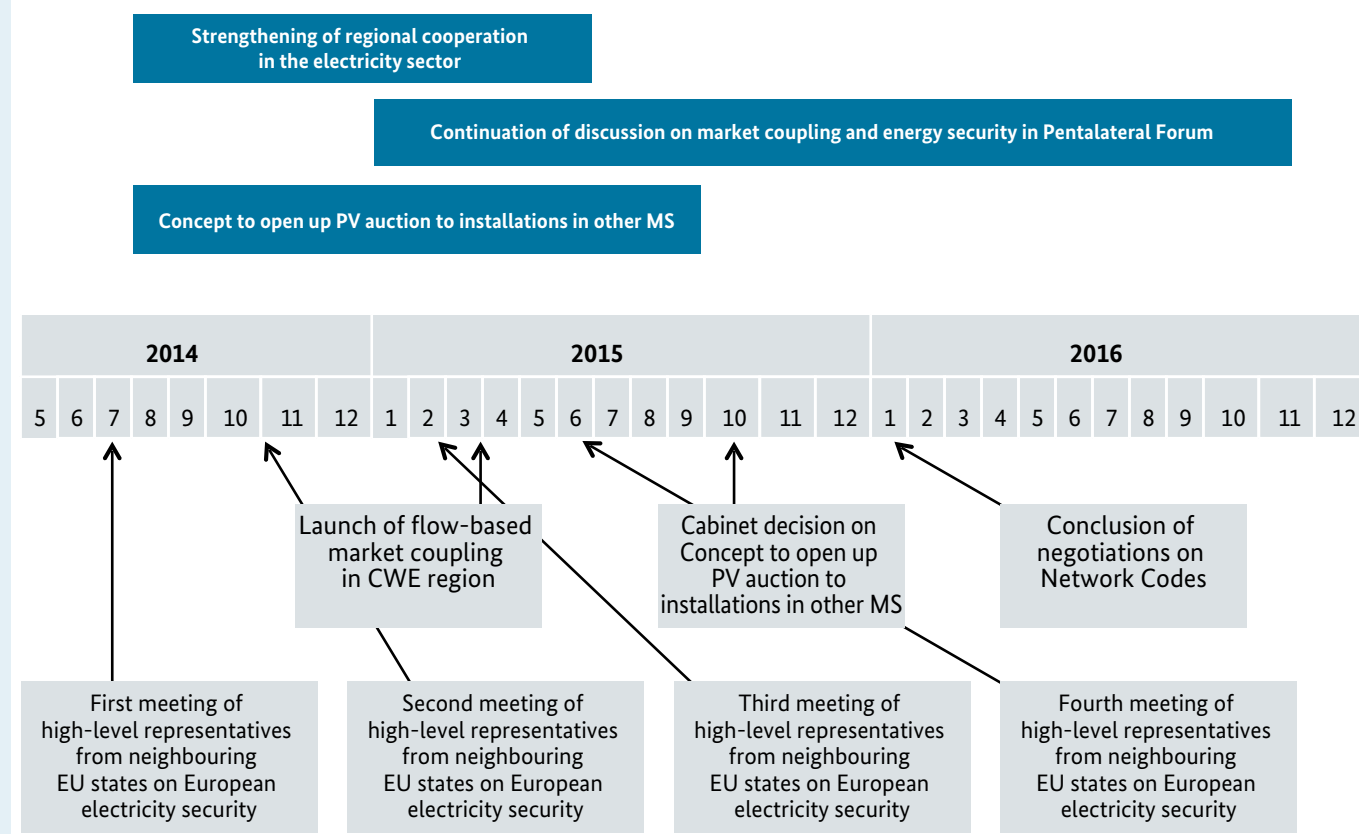


4. Regional cooperation (in EU)/internal market

If the energy transition is to succeed, Europe's electricity grids must become more integrated. The markets are already inter-connected. This will be developed further towards load-based market coupling. Electricity trading makes the electricity system more efficient and reduces the need to maintain generation capacities. At the same time, it makes it possible to achieve energy security on a low-cost, European basis. The cooperation is being built up in the Pentalateral Forum and a series of discussions with neighbouring countries initiated by Germany, with a view to strengthening energy security and the coordination of the electricity market design. Also, new grid codes are ensuring an increasing interlinkage between the European electricity markets.

By providing for supra-regional balancing of generation and demand, the internal market facilitates the integration of renewable energy. The German government is therefore aiming to increase the intensity of cooperation with its neighbours and with the European Union. For example, the 2014 Renewable Energy Sources Act has created the possibility to grant funding to foreign electricity via the auctions. The specific details are to be stipulated in an ordinance in close coordination with interested partner countries.

Regional cooperation (in EU)/internal market

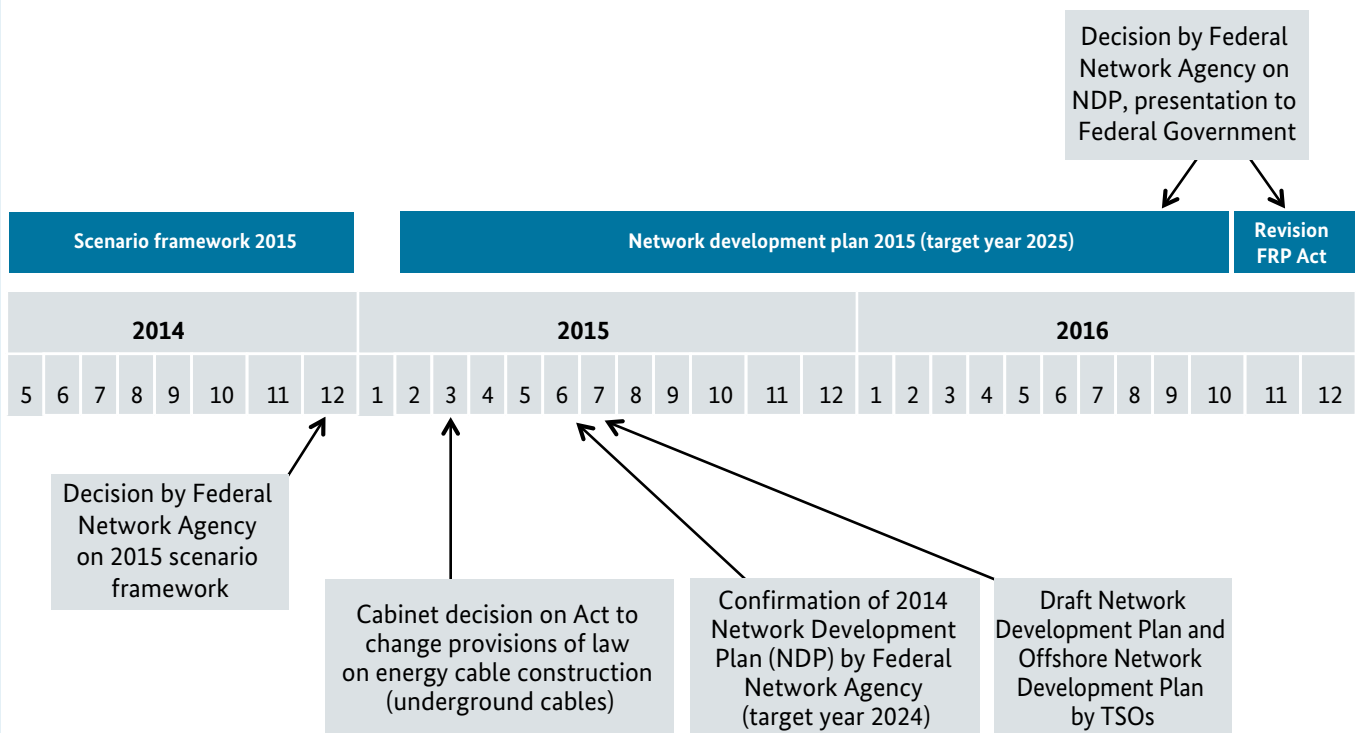


5. Transmission grids

The expansion of the transmission grids is the backbone of the energy transition. The grid development planning (ascertaining of demand) reflects fundamental assumptions about the likely development of the German energy system in the coming years. These assumptions refer for example to the rate of construction of additional renewables-based facilities, their geographical distribution across the country, and the development of the conventional power plant fleet. Robust grid planning must be suited not only to one possible future, but must be able to respond to various realistic scenarios.

In the summer of 2015, the Federal Network Agency will take a decision on the 2014 Network Development Plan for target year 2024. On the basis of proposals by the transmission system operators and following public consultations, the Federal Network Agency approved the next scenario framework at the end of 2014. The 2015 Network Development Plan will be produced on this basis for target year 2025. This Network Development Plan will compare the need to expand the transmission grids not only with the planned expansion corridors set out in the 2014 Renewable Energy Sources Act, but will also use various scenarios to reflect the German government's ambitious climate mitigation targets. The Network Development Plan for target year 2025 will be authorised by the Federal Network Agency and presented to the government in mid-2016. It will provide the basis for a revision of the Federal Requirement Plan Act (FRP Act), which will be on the agenda at the end of 2016.

Transmission grids



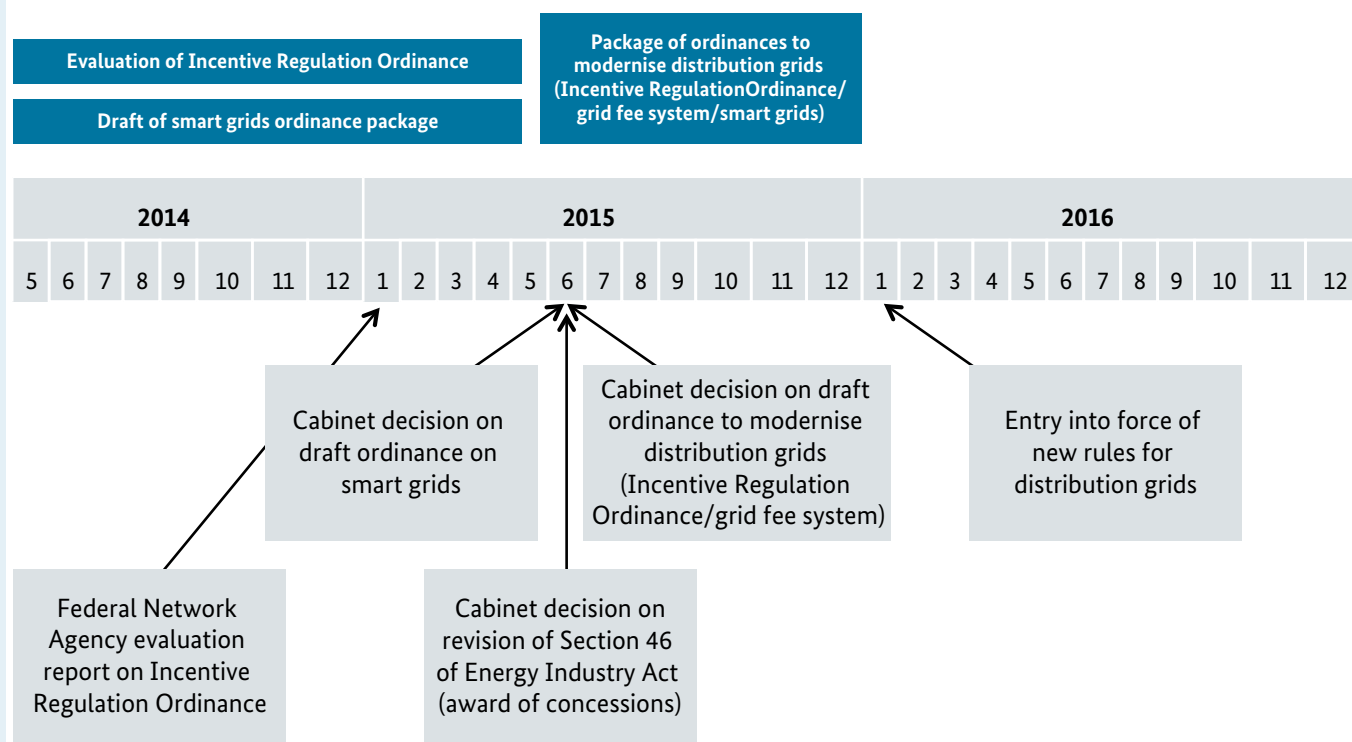
6. Distribution grids

Not only the transmission grids, but also the distribution grids need to be made fit to meet the needs of the energy transition. After all, a large proportion of the renewables-based electricity generation will be connected to the distribution grids.

We aim to tackle this task on the basis of the evaluation report on incentive-based regulation presented in January by the Federal Network Agency and the findings of the Grid Platform Study “Modern Distribution Grids for Germany”, presented in September 2014. We will present an initial draft revision of the Incentive Regulation Ordinance on the basis of the two documents in spring 2015, and will then consult. The draft ordinance is then to be adopted together with the package of ordinances on smart grids, the ordinance on the grid fee system, and the revision of the award of concessions, before the 2015 summer break. These rules, which are of relevance to the distribution grids, are to enter into force in early 2016.

Distribution grids

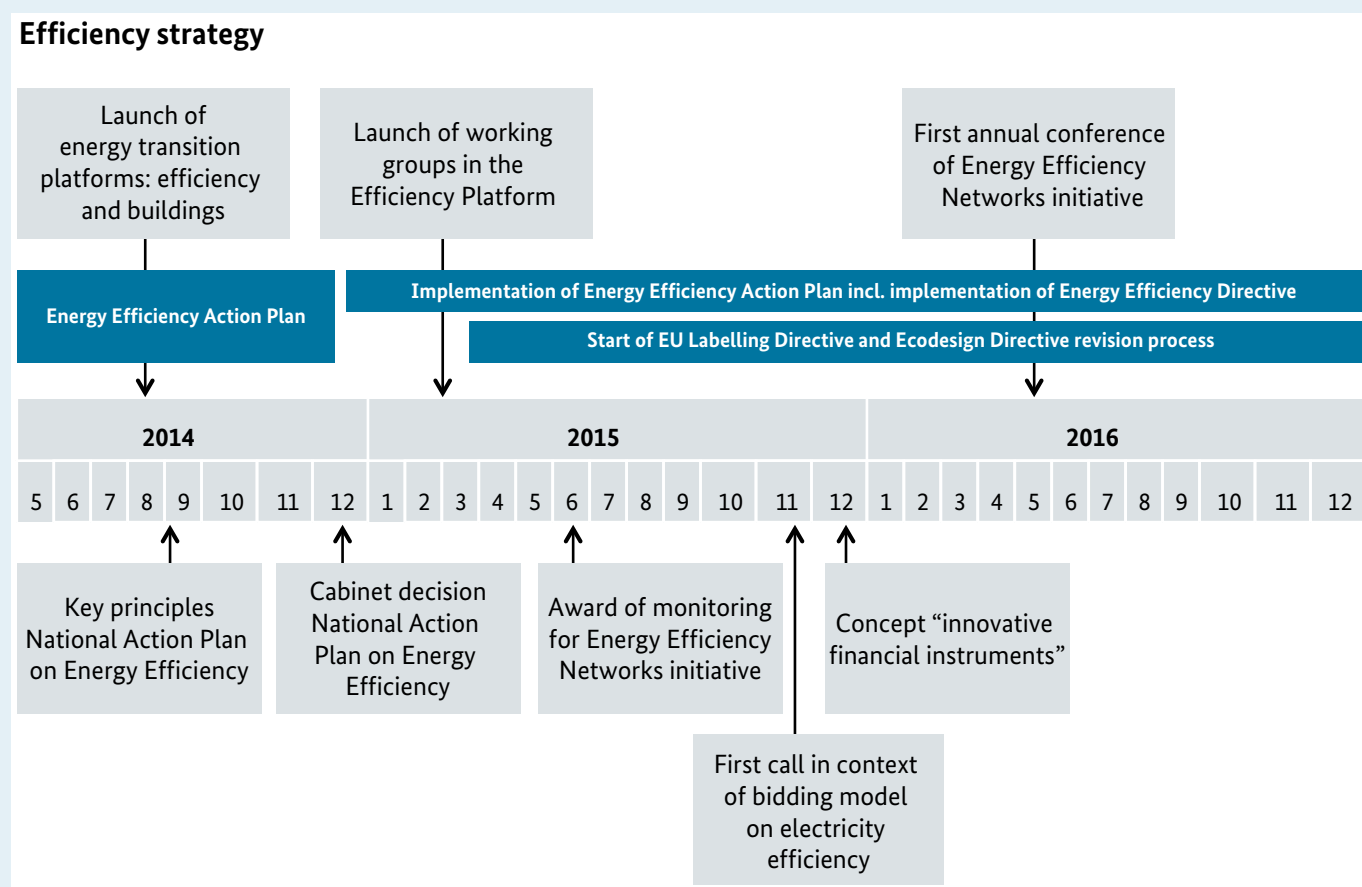
(Package of ordinances to modernise distribution grids)



7. Efficiency strategy

In the phase of the energy transition which lies ahead of us, great significance will attach to improving energy efficiency. For this reason, when we adopted the National Action Plan on Energy Efficiency (NAPE) in early December 2014, we strengthened energy efficiency as a second pillar of a successful energy transition. The Plan describes the Federal Government's energy efficiency strategy for the 18th legislative term and aims to win over and involve all stakeholders in society in the improvement of energy efficiency.

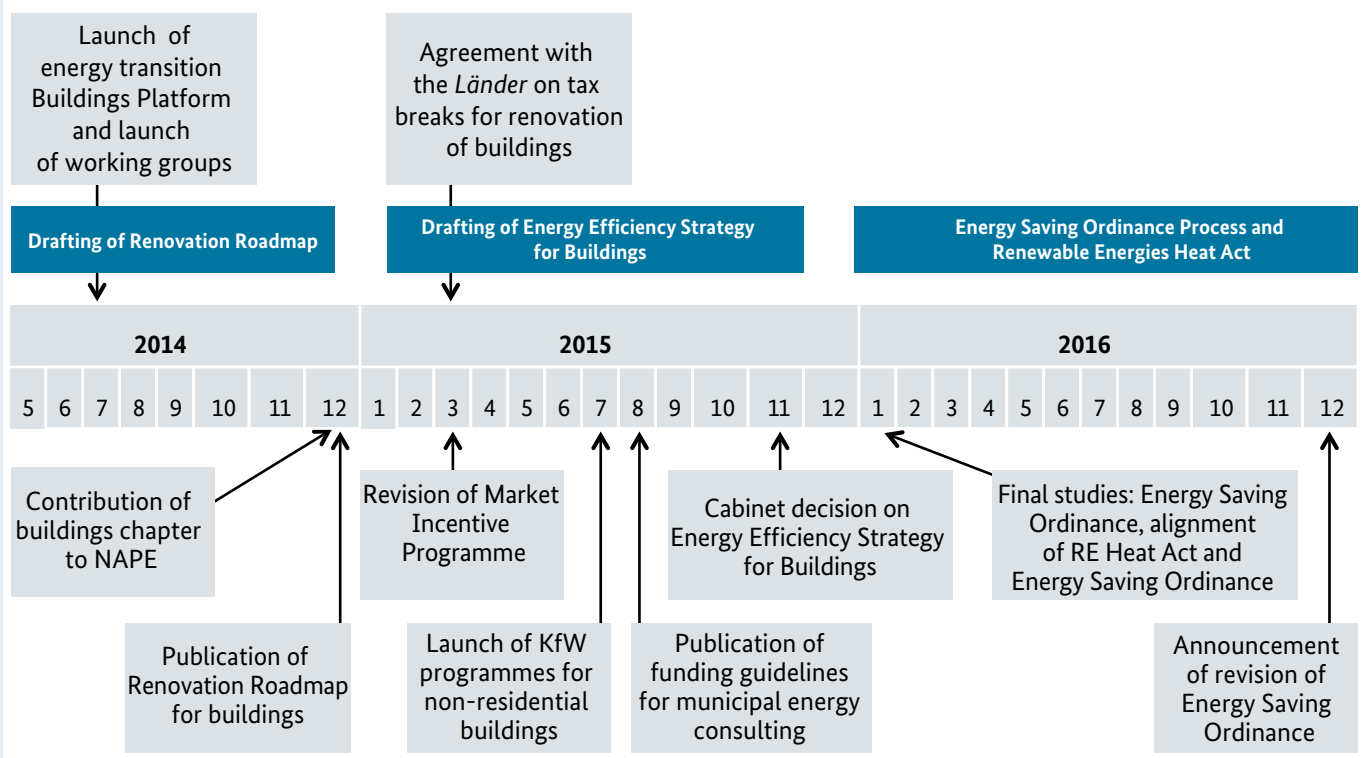
The measures stipulated in the NAPE will make a major contribution towards meeting the efficiency targets, and we will also be fully compliant with the energy conservation obligation deriving from the Energy Efficiency Directive. Several measures entered into force at the beginning of the year; the implementation of the NAPE will remain at the top of our agenda in the coming months. The Efficiency Platform of the energy transition and its newly established working groups will play a key role in the implementation.



8. Buildings strategy

Last December, we published not only the principles in the National Action Plan on Energy Efficiency, but also fleshed them out in a paper entitled “Renovation Needs in the Building Stock”. This first step, which defines and depicts the long-term need for renovation in the building stock and shows how we can achieve a building stock which is virtually climate-neutral by 2050, forms the basis for the Energy Efficiency Strategy for Buildings, which is to be drawn up by November 2015. A methodical strategy is important for the owners, so that they can make plans and take account of the future need for energy-related renovation in their investment in modernisation with a view to achieving a building stock which is virtually climate-neutral. As we transform this into specific instruments and measures, we are basically relying on the tried-and-trusted incentives for efficiency and renewables-based heat in the building sector, and aim to improve and expand these incentives. The overall strategy for the building sector will integrate electricity, heat and efficiency aspects and comprise all the necessary measures for this, e.g. stabilisation and topping up of the CO₂ building renovation programme, continuation of the market incentive programme, further development of the Renewable Energies Heat Act and the Energy Saving Ordinance.

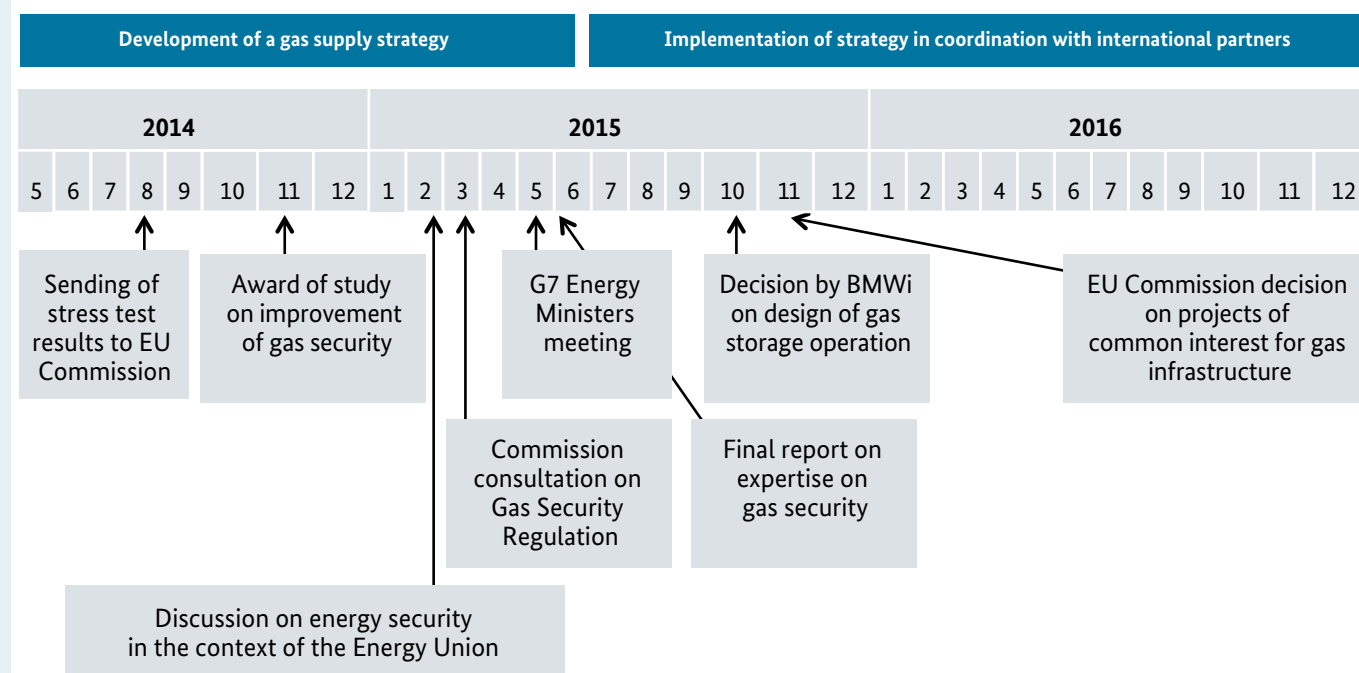
Buildings strategy



9. Gas supply strategy

Gas covers just under a quarter of Germany's primary energy consumption. A secure and affordable supply of industry and households with gas is thus crucial. In our market-based system, the primary responsibility for this lies with the companies. We are giving backing to the safeguarding of energy security in coordination with international partners, and particularly the EU. The focus is on the completion of the internal energy market, including the improved physical connection between the EU member states and the access to the LNG terminal, e.g. via the European projects of common interest. We also support commercial projects which aim to diversify supply countries and routes. On the basis of a study, we also examine whether and to what extent rules on gas storage can help to improve energy security. Here, questions relating to gas-fired power plants are not a subject of the gas supply strategy, but are part of the process on future electricity market design.

Gas supply strategy

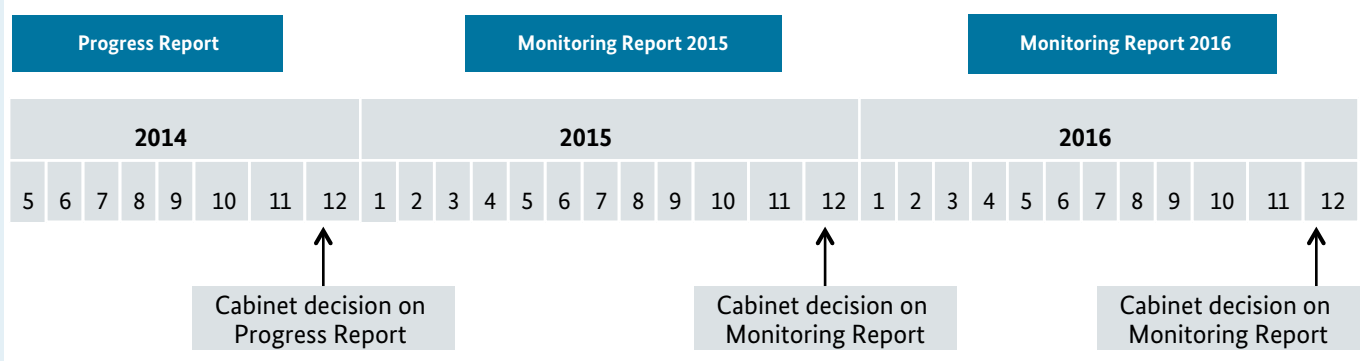


10. Monitoring the energy transition/Platforms

The process of monitoring the energy transition basically serves three aims: overview, evaluation and outlook. An annual report describes and assesses the status of the implementation of the energy transition. In December 2014, the German government summarised the situation in a strategic progress report. It shows what important progress the Federal Government has already made on implementing the energy transition. It also looks ahead and cites key challenges and the fields where further fine-tuning is required.

Further to this, the current progress report contains a new target architecture for the restructuring of the energy supply: this was adopted by the Federal Government in December 2014 on the basis of the recommendations by the commission of experts on the first two monitoring reports. The political goals of climate change mitigation, the phase-out of nuclear power, energy security and competitiveness form the policy framework for the energy transition. Also, the new target architecture prioritises and structures the aims of the Energy Concept. It thus opens up the possibility for the targets to be met in a flexible and low-cost manner. In this way, targets at the level of individual measures can be optimised in such a way that the targets can be adhered to at the overarching level.

Monitoring



We attach importance to the early involvement of groups in society in policy development. This dialogue is organised and structured in forums and platforms by the Federal Ministry for Economic Affairs and Energy. There are five energy transition platforms: for the electricity market, efficiency, energy grids, buildings, and research and innovation.

Platforms

