



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

(2nd continuation of the 10-Point energy agenda of the  
Federal Ministry for Economic Affairs and Energy, January 2016)

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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. The 2014 reform of the Renewable Energy Sources Act, including the special equalisation scheme, made the Act fit for the future, laid down a challenging expansion path for renewables, and ensured that electricity-intensive manufacturing in Germany remains competitive.

The 2014 Progress Report and the fourth Monitoring Report at the end of 2015 looked into where we stand, and reviewed whether the goals of the Energy Concept are being attained and whether further action is needed. There was a particular need to act on energy efficiency and climate change mitigation. We are addressing this in the National Action Plan on Energy Efficiency and the Energy Efficiency Strategy for Buildings, and are thus strengthening the role of energy efficiency as a pillar of the energy transition. The electricity sector is making an additional contribution towards mitigating climate change by shifting from coal-fired to gas-fired CHP. Also, lignite-fired power stations are being placed on "security stand-by" and gradually decommissioned.

In the coming years, renewables will become the dominant source of electricity. This will launch a new phase of the energy reforms, creating 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. The Electricity Market Act, which is slated to enter into force in 2016, will put important policies in place for this.

The 10-point energy agenda contains the key projects of the energy reforms 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 and first updated in February 2015. This is the second revision.

	2014												2015												2016											
	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12				
<b>Renewable Energy Sources Act</b>	RES Act 2.0 ✓			Pilot auctions ✓				Pilot auctions and construction ✓					Report on effects ✓			RES Act 3.0 (auctions)				Start of auctions																
<b>EU 2030/ETS</b>	EU 2030 targets ✓				Development of governance 2030 ✓								Negotiation of new EU legal framework																							
	ETS reform (market stability reserve)												ETS reform post-2020																							
<b>Electricity market design</b>	Expert report ✓			Green Paper ✓				White Paper ✓				Electricity Market Act/ Capacity Reserve Ordinance					Implementation of legislation																			
<b>Regional cooperation (in EU)/internal market</b>	More regional cooperation in the electricity sector ✓												Discussion of EU electricity market design																							
	Concept to open up PV auctions to installations in other MS																																			
<b>Transmission grids</b>	Scenario framework 2015 ✓				2024 Network Development Plan ✓				Revision FRP Act ✓				2025 Network Development Plan																							
<b>Distribution grids</b>	Evaluation of Incentive Regulation Ordinance ✓								Revision of Incentive Regulation Ordinance																											
	Drafting of Act on the Digitisation of the Energy Transition ✓												Act on the Digitisation of the Energy Transition																							
<b>Efficiency strategy</b>	Efficiency of Renovation Roadmap ✓				Implementation of Energy Efficiency Action Plan incl. implementation of Energy Efficiency Directive												Green Paper on energy efficiency																			
<b>Buildings strategy</b>	Drafting of Renovation Roadmap ✓				Drafting of Energy Efficiency Strategy for Buildings ✓								Revision of EnEG/EnEV/EEWärmeG																							
<b>Gas supply strategy</b>	Development of a gas supply strategy ✓												Implementation of strategy in coordination with international partners																							
<b>Monitoring/Platforms</b>	Progress Report ✓				Monitoring Report 2015 ✓								Monitoring Report 2016																							

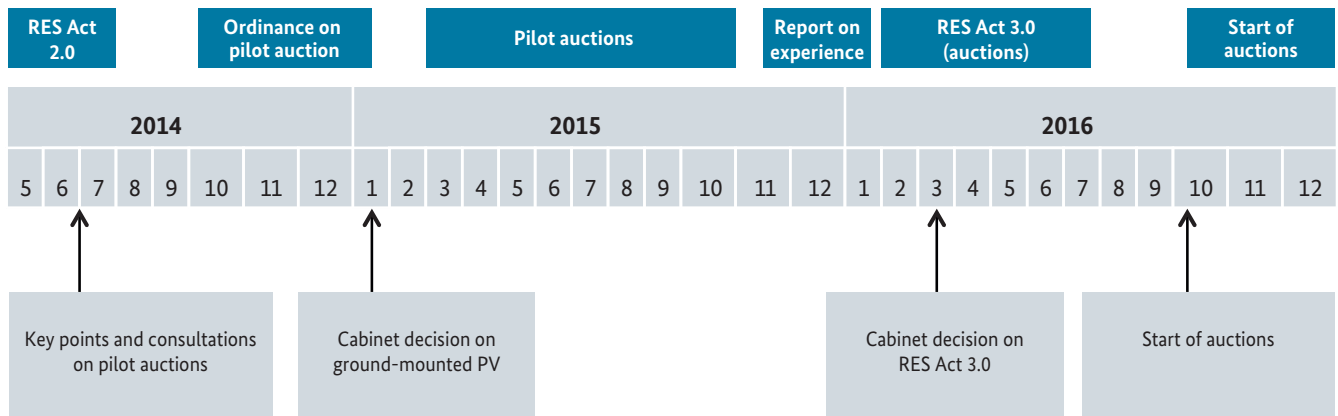
# 1. Renewables, Renewable Energy Sources Act

The 2014 revision of the Renewable Energy Sources Act 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 implemented the pilot project in 2015 and then assessed it in a report on the effects. We found that the auction works and that many different stakeholders participate. In the case of ground-mounted PV installations, competition has resulted in falling costs. The findings gained in the pilot auctions form the basis for the changes to the Renewable Energy Sources Act planned for 2016. On the basis of the 2016 Renewable Energy Sources Act, we will set the level of funding for wind and solar power by auction.



## Renewable Energy Sources Act

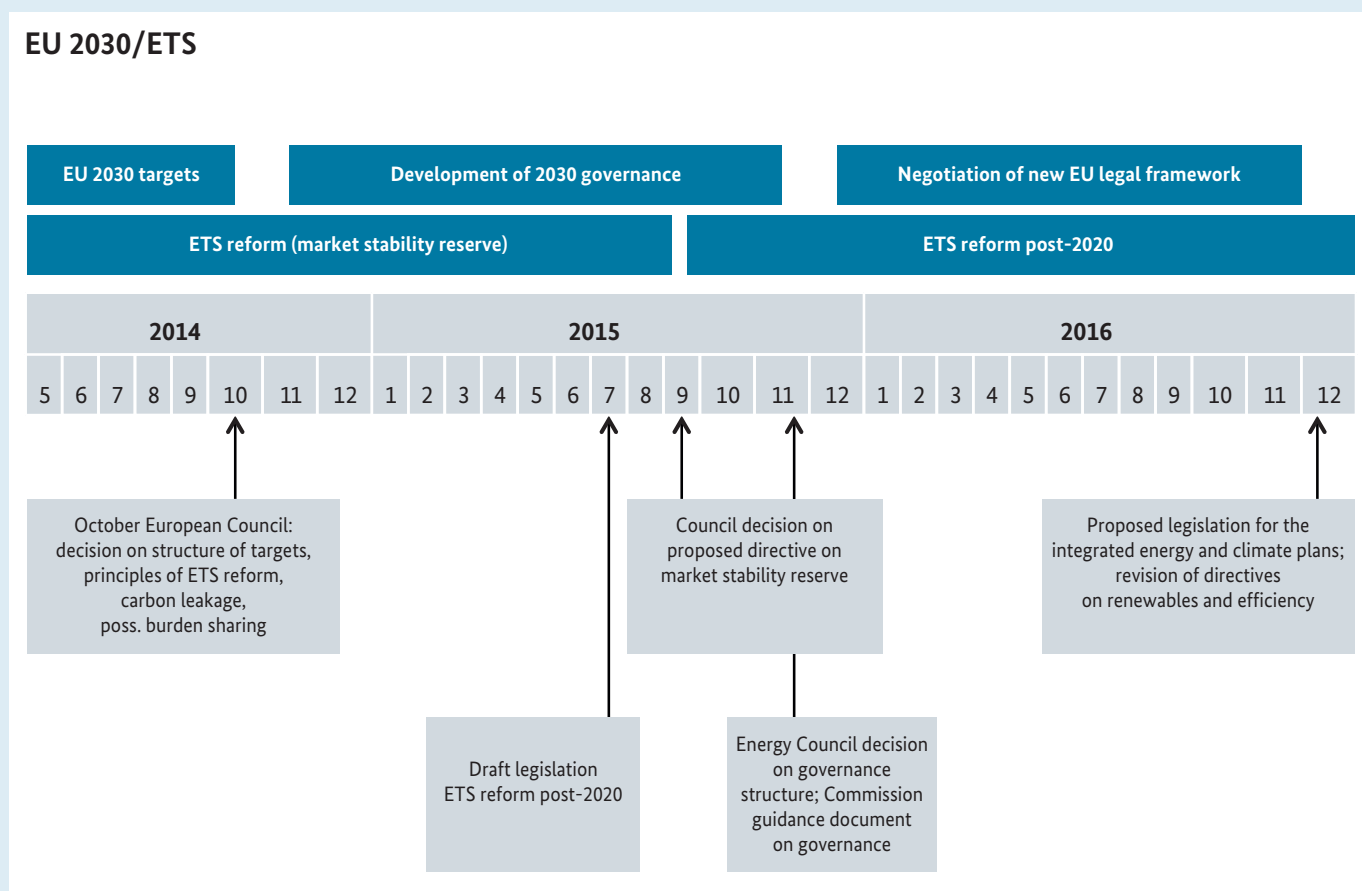


## 2. European Climate and Energy Framework 2030 / ETS

The decisions of the European Council of October 2014 on the European climate and energy framework 2030 and the reform of European emissions trading were of key strategic significance for the direction of European and national climate and energy policies, and thus for the successful implementation of the energy reforms. 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 European Union now needs to put a legal framework in place so that the decisions by the member states will actually be implemented and the targets attained.

The European Commission's Framework Strategy should be used to put a coherent European energy policy in place and to ensure that the targets are realised. The Framework Strategy embraces energy security, the internal energy market, energy efficiency, decarbonising the economy, and energy research. In November 2015, the Council of Energy Ministers took initial important structural decisions envisaging integrated climate and energy plans by the member states for the 2021 to 2030 period. The Commission has announced that it will make proposals for a revision of the energy efficiency directives and the renewable energy directive in the second half of 2016.

European emissions trading is a fundamental pillar of Europe's energy and climate policy. Emissions trading is to be reformed on the basis of the decisions by the European Council of October 2014, and in this context the rules to protect the international competitiveness of industry are to be revised. The reform of emissions trading particularly aims to set effective economic incentives to reduce greenhouse gases. The decision to introduce a market stability reserve (MSR) and to transfer backloaded and remaining allowances from the current trading period to this reserve represent first steps along this path.



### 3. Electricity market design

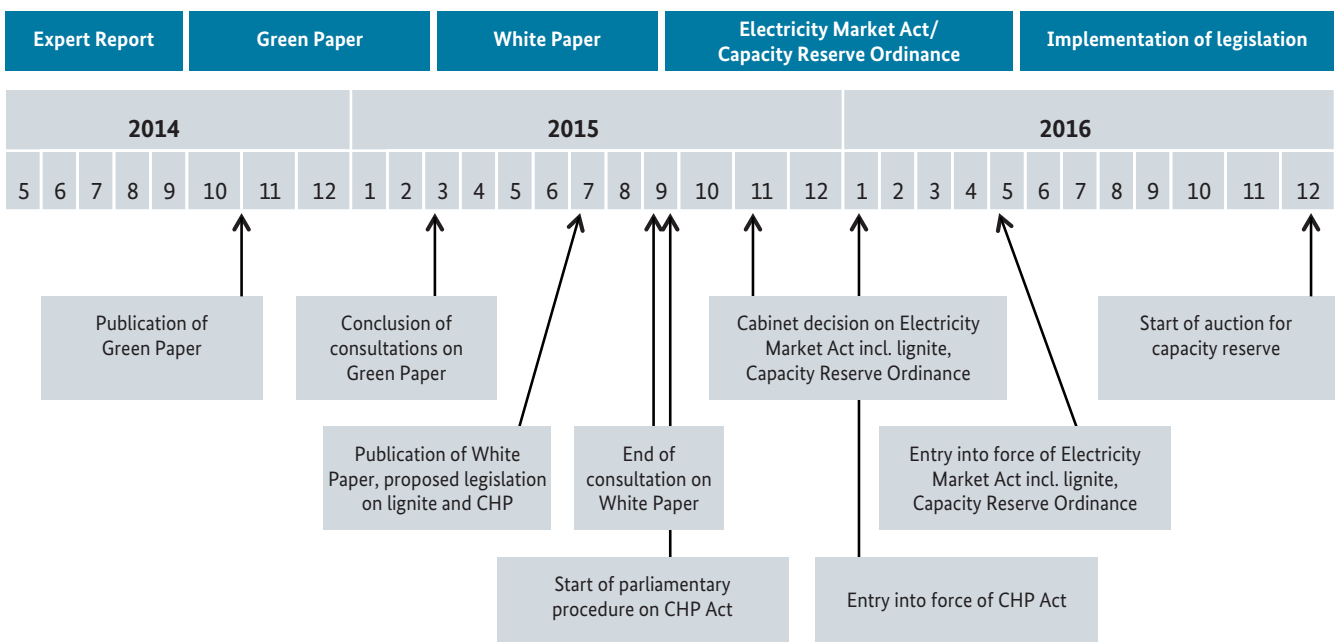
The future electricity market design is intended to ensure an efficient deployment of power stations in the face of growing shares of renewables, whilst maintaining energy security. On the basis of several studies and in-depth discussions at the Electricity Market Platform, we presented a Green Paper flagging various options and their pros and cons in autumn 2014. The public consultation was followed by a White Paper in which specific measures were proposed.

On this basis, the Federal Cabinet adopted a draft Electricity Market Act in November 2015. The Act puts a credible legal framework in place in which investors can trust. We are strengthening the existing market mechanisms and creating a framework in which all electricity providers and flexibility options compete with one another. A new capacity reserve is intended to provide further insurance against unforeseen events on the electricity market. This reserve is introduced by the Electricity Market Act and specified in greater detail by the Capacity Reserve Ordinance. At the same time, the Electricity Market Act will ensure that the ‘electricity market 2.0’ is firmly embedded in the European internal market, which will make it even more cost-efficient.

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. This is why we combined the decisions on these two issues. The reform of the CHP funding will provide a strong economic incentive to switch from coal-fired to gas-fired CHP and to build new highly efficient gas-fired CHP installations. Firstly, this provides a stable economic and legal framework for the further development of CHP, and secondly it makes an important contribution towards the attaining of the national climate target.

The progress report on the energy transition has shown that all sectors must make a further contribution towards cutting emissions if we are to attain our national climate target for 2020. Greenhouse gas emissions are also being reduced further in the electricity sector thanks to a reform of the CHP Act. Specifically, a switch is taking place from coal-fired to gas-fired CHP. Also, lignite-fired power stations which are particularly damaging to the climate are being placed on “security stand-by” and gradually decommissioned. Other greenhouse gas reductions will be achieved via efficiency measures in the building sector, in the municipalities, in industry and on the railways.

#### Electricity market design



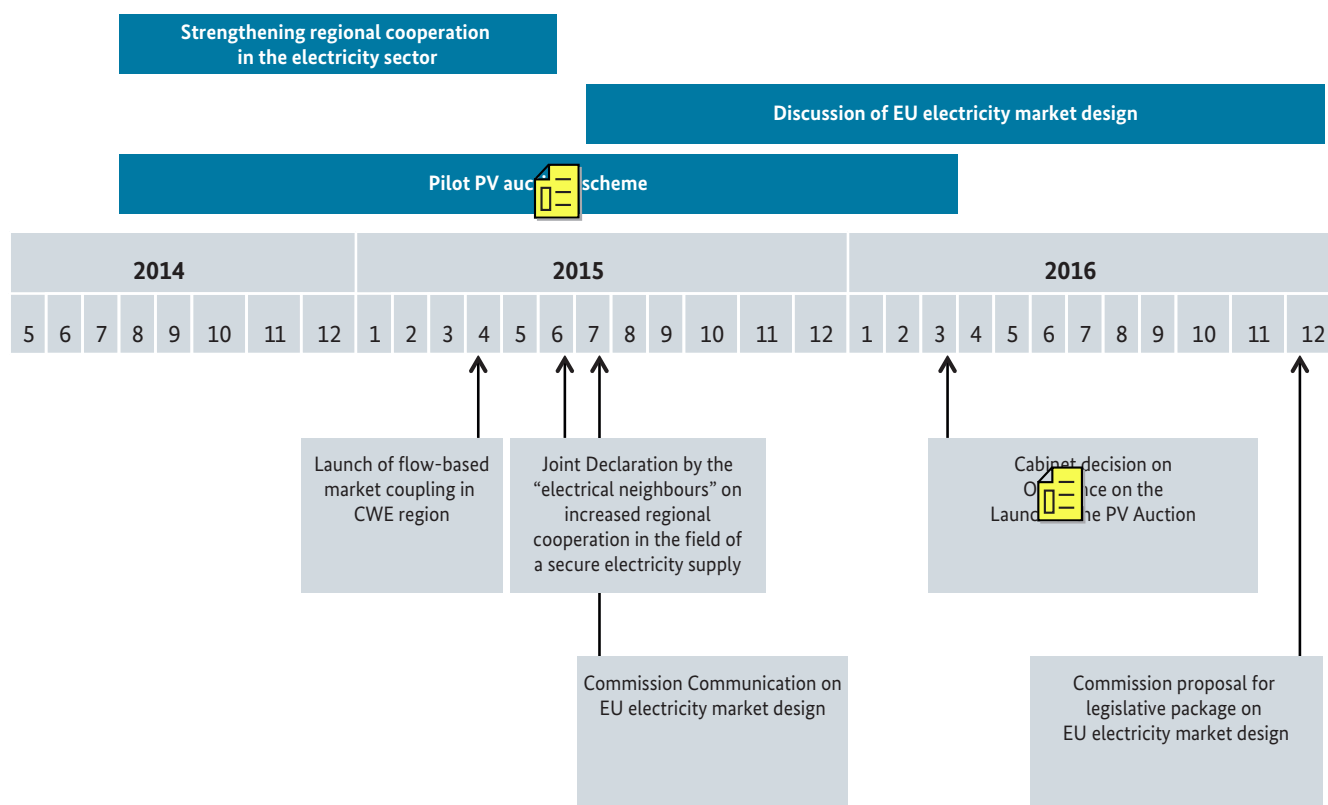
#### 4. Regional cooperation (in EU) / internal market

For the energy transition to succeed, Europe's electricity grids must become more integrated. The cooperation is being fostered in regional forums like the Pentalateral Forum and a platform initiated by Germany for cooperation with its neighbours. Regional cooperation also improves energy security in Germany. Here, the signing in June 2015 of a joint declaration on strengthening regional cooperation on supply security for electricity was an important step.

The European Commission launched a consultation in 2015 on the future European electricity market design, the results of which are to form the basis of proposed European legislation in 2016. The principles presented by the Commission so far largely reflect the line taken by the German White Paper on the electricity market and the draft Electricity Market Act, and mainly aim to flexibilise the electricity market and strengthen the single market.

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. The 2014 Renewable Energy Sources Act created the possibility to conduct auctions together with European neighbours. An ordinance which is to be adopted by the Cabinet in parallel to the 2016 Renewable Energy Sources Act will specify the relevant details for this.

#### Regional cooperation (in EU) / internal market

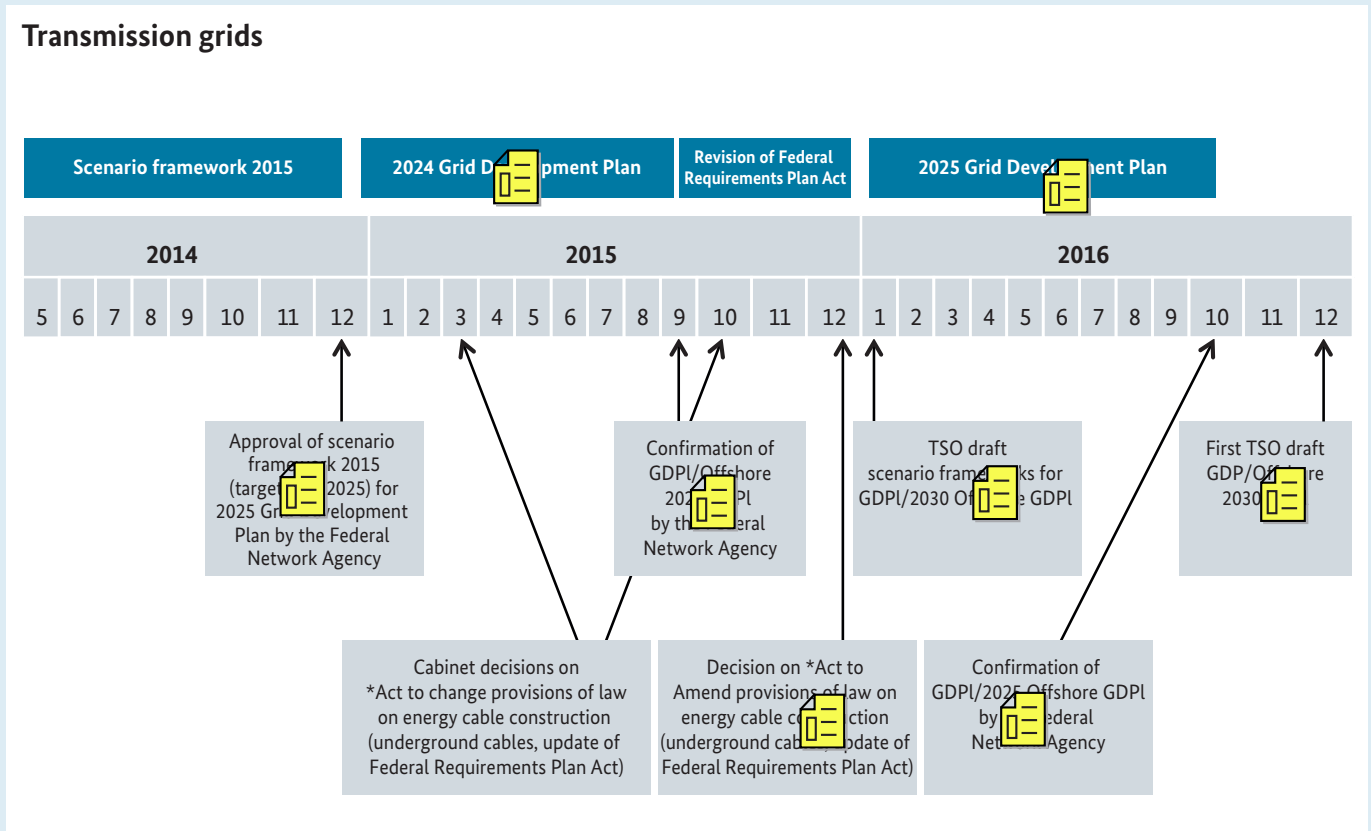


## 5. Transmission grids

The expansion of the electricity grids is an important prerequisite for balancing generation and consumption on a supra-regional basis and making it possible to use more renewable energy. In September 2015, the Federal Network Agency took a decision on the 2014 Grid Development Plan for target year 2025. The Act to change provisions of law on energy cable construction updated the Federal Requirements Plan and introduced a statutory priority to place high-voltage direct current (HVDC) lines underground. This puts the conditions in place for the grid to be expanded more quickly and in a more people-friendly way.

The transmission system operators have since presented and consulted on the first draft of the 2025 Grid Development Plan. This Plan's various scenarios also give consideration to the national climate targets. The Grid Development Plan for target year 2025 will probably be authorised by the Federal Network Agency in October 2016.

Following a change in the law at the end of 2015, the regular Grid Development Plan processes will take place only every other year, not every year.





## 6. Distribution grids

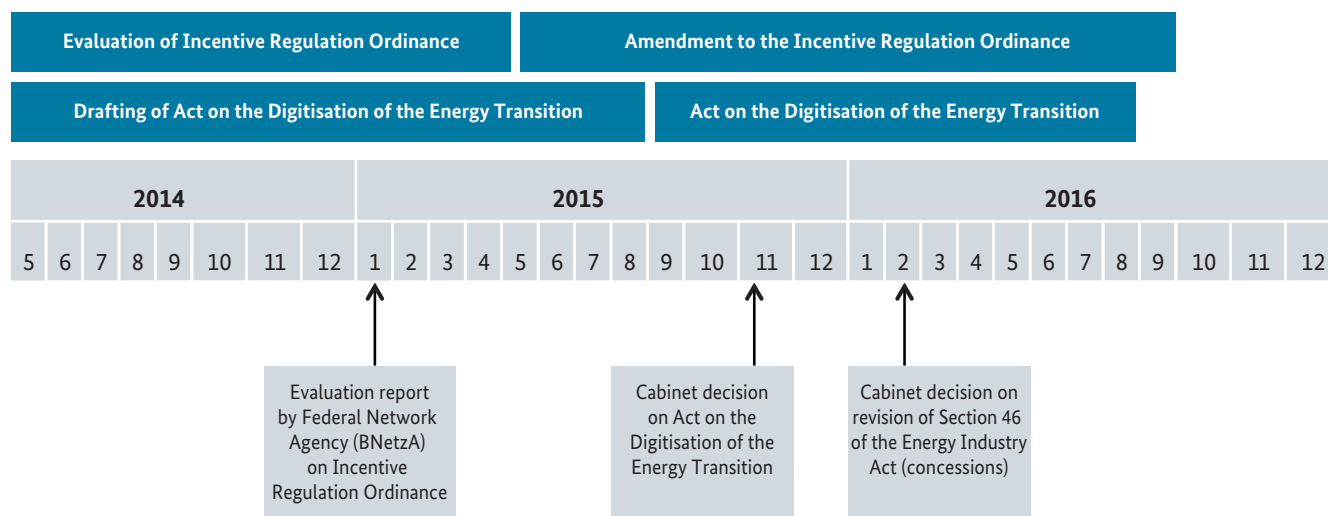
In addition to the transmission grids, the distribution grids also need to be made ready for the demands of the energy transition. After all, a large proportion of the renewables-based electricity generation will be connected to the distribution grids.

One important step was the Cabinet decision on a draft Act on the Digitisation of the Energy Transition. The act is to enter into force once it has been adopted by the Bundestag in the summer of 2016. It puts in place the legal framework and the technical preconditions and data protection rules for the electricity sector to be digitised, and makes it possible to roll out smart meters.

Further to this, the Incentive Regulation Ordinance is to be revised in 2016. The revision will firstly create greater certainty for the plans to expand and modernise the necessary distribution grid infrastructure, and secondly will incentivise the use of cost-efficient, smart measures.

The rules on the granting of concessions for grid-based energy in Section 46 of the Energy Industry Act are also being revised. A corresponding draft is to be presented to the Cabinet at the beginning of 2016. Finally, the legal basis for a uniform national transmission grid fee is to be put in place in 2016.

### Distribution grids

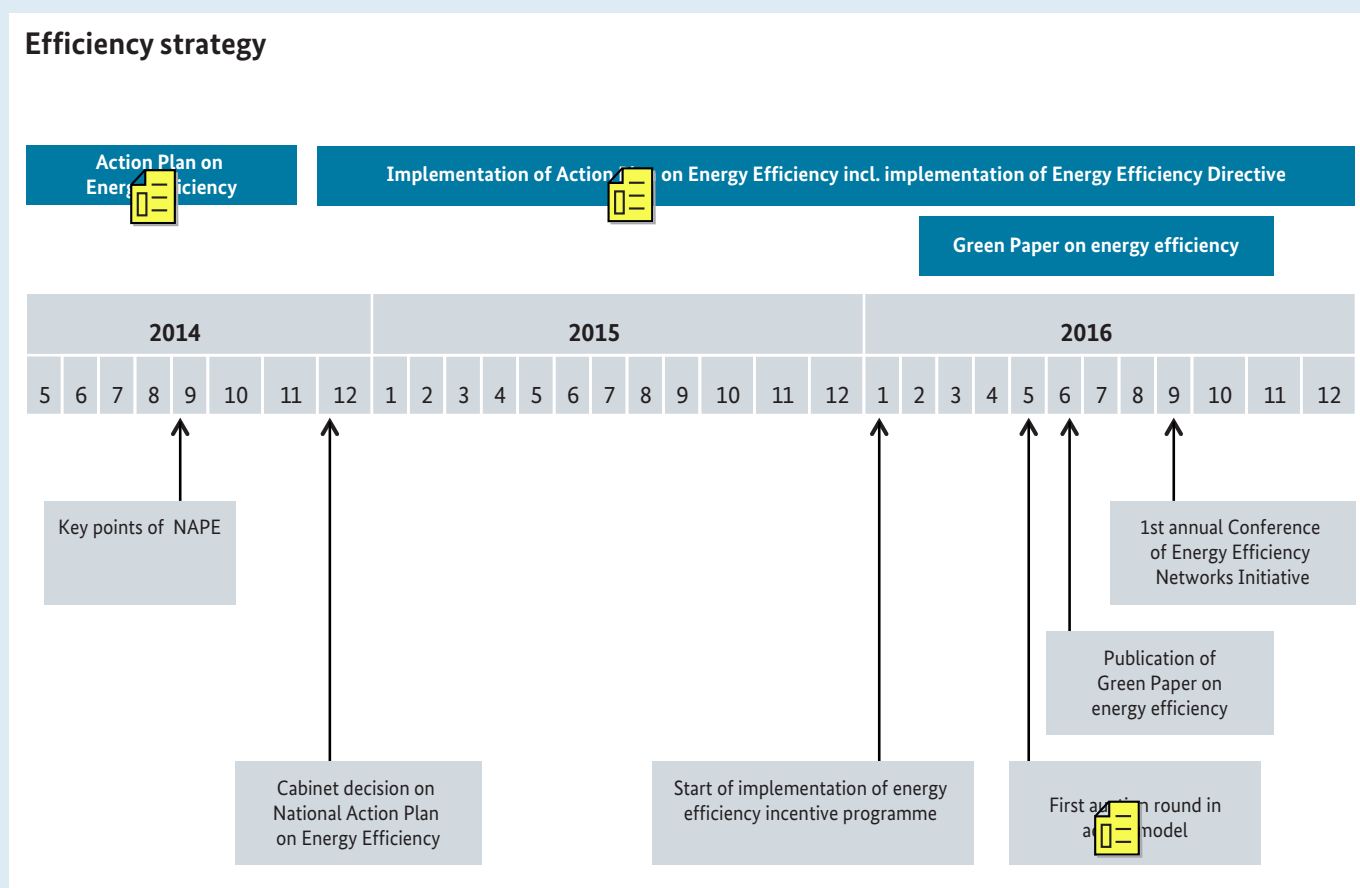


## 7. Efficiency strategy

In the current phase of the energy transition, priority will be assigned to boosting energy efficiency. For this reason, when we adopted the National Action Plan on Energy Efficiency (NAPE), we strengthened energy efficiency as a major pillar of a successful energy transition at the end of 2014. 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 Plan are making 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.

In 2015, we launched more than half of the immediate measures contained in the Plan. In 2016, implementation will speed up further - by the end of the year, all of the measures will have been launched. In addition to this, the party chairpersons of the governing coalition decided in their policy agreements of 1 July 2015 to introduce new efficiency measures to supplement those in the Plan. The introduction of these measures is currently being planned in parallel to the implementation of the Plan.

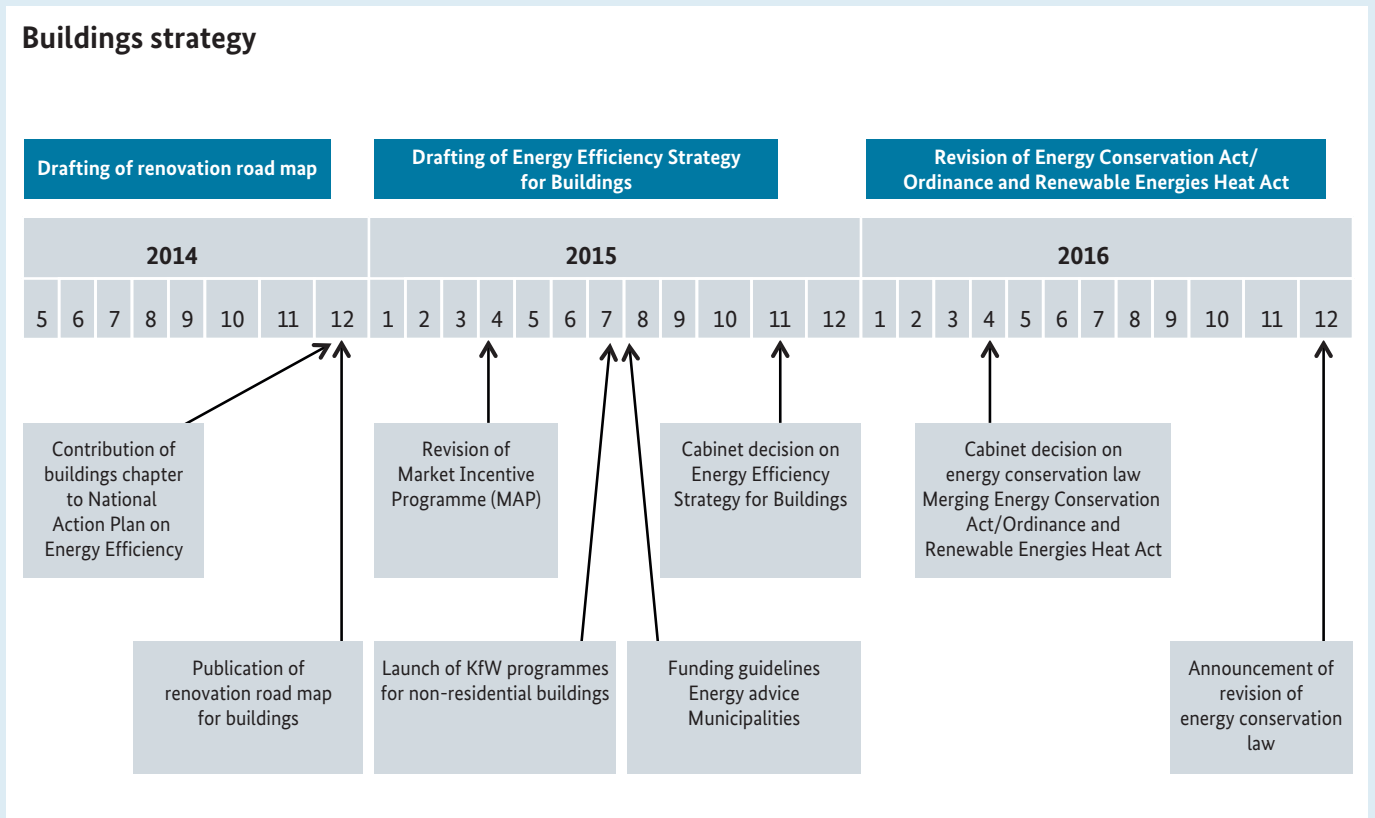
In 2016, we will launch a Green Paper process to continue the development of our energy efficiency policy. In a broad-based dialogue process involving government, commerce and society, we will identify new challenges at an early stage and discuss options for action with the relevant stakeholders.



## 8. Buildings strategy

In December 2014, 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”. The Energy Efficiency Strategy for Buildings was adopted by the Cabinet in November 2015. It is the central strategy paper for the energy transition in the buildings sector and addresses both technical and energy aspects as well as first approaches to economic and, in the longer term, social interests in this area. It also deals with overarching aspects of energy policy, such as issues related to interaction between electricity and heat.

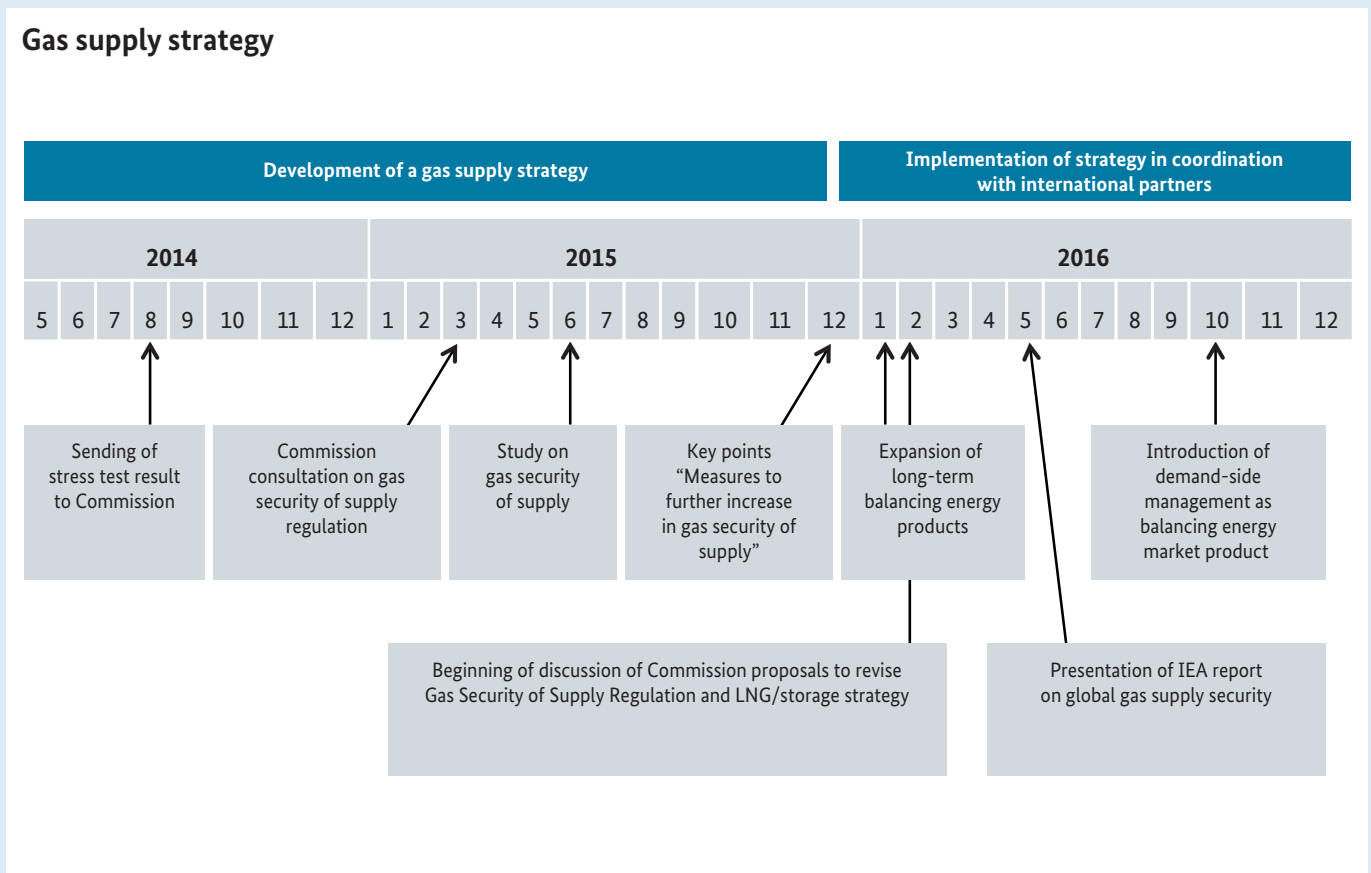
The Strategy shows what can be achieved by improving energy efficiency in buildings and what contribution renewable energy can make towards covering heat and energy needs. This means that the Strategy also provides orientation for building owners so that they can strategically orient their investment in modernisation. 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 better structure 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. the CO<sub>2</sub> Building Renovation Programme, continuation of the Market Incentive Programme, further development of energy conservation law for buildings (merging of the Energy Conservation Act/Ordinance, Renewable Energies Heat Act to form a coordinated system).



## 9. Gas supply strategy

Gas covers just under a quarter of Germany’s primary energy supply. A secure and affordable supply of industry and households with gas is thus crucial. In our market-based system, the primary responsibility for this rests 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 LNG terminals. We also support commercial projects which aim to diversify supply countries and routes.

In December 2015, the Federal Ministry for Economic Affairs and Energy published a list of key principles for measures to improve the security of the gas supply. These measures – expanding long-term balancing energy products, introducing demand-side management as a balancing energy market product – are to strengthen the functioning of the balancing energy market, which serves to offset unpredictable congestion in the gas grid. Implementation of these measures is to be completed by the beginning of the 2016/17 winter.



## 10. Energy transition monitoring/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 reforms. In December 2014, the German government summarised the situation in a strategic progress report. As well as reporting on the progress on the implementation of the energy transition, it also looks ahead and cites key challenges and the fields where further fine-tuning is required.

Further to this, the Progress Report presented a new target architecture for the restructuring of the energy supply which the Federal Government adopted on the basis of the recommendations of the Commission of Experts regarding 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.

The fourth Monitoring Report (November 2015) showed that we are making good progress on the energy transition. Renewables are our number-one source of electricity, energy consumption is down, greenhouse gas emissions are falling, security of supply is ensured. On the other hand, the Monitoring Report points to a need for action, e.g. to cut energy consumption and greenhouse gases in the transport sector.

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.

