
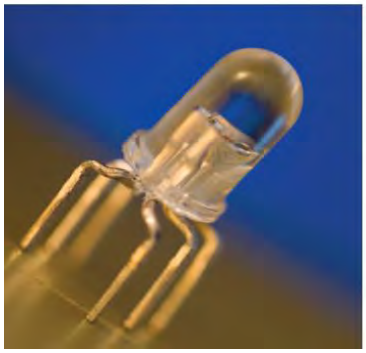


Assessment of climate change policies as part of the European Semester

Country Report Germany

16 January 2015

A report submitted by ICF Consulting Services
in association with

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to DG Climate Action

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Content

1 Short Summary

In Germany, the national climate and energy targets until 2050 are outlined in the Energy Concept adopted in 2010, with milestones for each decade. According to the Concept, Germany wants to reduce its GHG emissions by 40% by the year 2020 compared to 1990 levels. However, projections indicate that additional measures are needed to get to these reductions. In order to reach the target, the government published the Action Programme for Climate Protection on 3 Dec. 2014. It outlines a suite of new measures in all relevant sectors which in combination are expected to close the gap.

The German non-ETS target under the Effort Sharing Decision (ESD) is -14% (compared to 2005) but non-ETS emissions were reduced only by 3.8% between 2005 and 2013 which is above the interim target. According to the latest national projections submitted to the European Commission and taking into account existing measures, the 2020 target is expected to be missed by a small margin of 0.7% points.

The key policy developments in the last year (Jan. 2014 – Jan. 2015) include the reform of the Renewable Energy Act to reduce the surcharge for final consumers (see Chp. 4.4). On 3 Dec. 2014, the National Action Programme on Energy Efficiency was published which outlines inter alia new measures to promote efficiency refurbishments of residential and non-residential buildings and measures supporting enterprises through financial support but also obligating them to carry out energy audits (see Chp 4.3).

2 Climate and energy policy priorities

Germany has committed to ambitious greenhouse gas (GHG) emission reductions: by 2020, it wants to achieve a 40% total emission reduction target, compared to 1990 levels. By 2050, Germany wants to reduce its total emissions by 80-95%. However, Germany is currently not only likely to miss its own national 40% GHG reduction target, but also its European 2020 non-ETS target with existing measures (-14%). On 3 December 2014 the government published the Action Programme for Climate Protection 2020 which names central policy measures to close the gap towards the 40% GHG reduction target. An achievement of the 40% reduction target would imply an overachievement of its European Non-ETS target.

Proposed measures include the National Action Plan on Energy Efficiency (NAPE) (see Chp 4.2.2), additional measures in the building sector, in transport (see Chp. 4.2.5), as well as non-energy related emissions in industry, waste, sewage and agriculture. A remaining gap of 22 Mt CO_2eq is supposed to be closed by additional measures in the power sector, the specifics for which will be decided upon in 2015 (BMUB 2014). The most publicly discussed option in this regard are additional contributions of coal plant operators, hinting towards closure of older generation capacity. However, this discussion has mainly taken place in public media and no official government strategy has been published so far.

By 2016, the German government plans to publish a National Climate Protection Plan for 2050 to analyse existing measures and requirements for additional measures to reach the long-term emission targets.

In Germany, energy generation as well as electricity generation are still based significantly on fossil fuels: 34% of primary energy consumption in 2013 was mineral oil which is used for the production of transport fuels and for residential heating. Hard coal and lignite follow with a share of 25% and are primarily used for electricity generation. They made up 45% of electricity generation in 2013. Natural gas has a share of 23% in primary energy consumption and is used for electricity generation (share of 11%) and industrial and residential heating. Primary energy consumption from renewable energy sources amounts to only 10%, but they supplied 24% of total electricity generation. Nuclear energy has a share of 8% in primary energy consumption and is used for electricity generation only (share of 15%) (BMWi 2014).

The Energy Concept (2010) provides a long-term strategy for German energy policy that is in line with the GHG emission reduction targets (as energy is the most important source of emissions). Its principal objective is to ensure the provision of environmentally friendly, reliable, and affordable energy supply while turning Germany into one of the greenest economies in the world. The Energy Concept sets targets for the share of renewable energies in electricity, heat and transport, as well as for the reduction of primary energy demand, energy end-use efficiency improvements, electricity generated from cogeneration and for the reduction of electricity consumption, energy consumption in buildings and transport. It does so for 2050, with milestone targets for each interim decade. Nuclear energy was stipulated as a bridging technology at that time (meaning in 2010, when the Concept was originally adopted) and an extension of the operating lifetime was agreed after the earlier phase-out decisions of the year 2000. However, as a reaction to the Fukushima disaster, the government decided to change course again and phase out nuclear energy by 2022. It updated the Energy Concept accordingly in the summer of 2011 to reflect the accelerated shift to an efficient and renewable energy system, which is known in German as “Energiewende”, the energy transition.

The German government reviews the progress towards the targets in a monitoring process with annual reports (see BMWi, 2014). An independent expert commission composed of four energy experts supports the process and publishes their own assessment on the monitoring process and the progress towards the targets (Löschel et al., 2014).

3 GHG trends and projections

Germany reduced its total GHG emissions between 2005 and 2013 by only 4%; since 2010 emissions have stagnated and even increased again (see Table 1). Preliminary figures for 2014 indicate that this growth trend may have been broken due to a warm winter and additional renewable energy production, creating a reduction over 2013 by as much as 5% (CEW2014). These preliminary figures have not been included in the quantitative sections of this report.[1]

Table 1 Key data on GHG emissions

		National Data				*EU28*
		2005	**2011**	**2012**	**2013**	***2013***
Total GHG emissions	Mt CO_2eq	994.5	928.7	939.1	950.8	*4 539*
Non-ETS emissions	Share in total emissions	52%	52%	52%	49%	*58%*

Source: EEA 2014a; EEA 2014c

By 2020, Germany needs to reduce its emissions not covered by the EU ETS by 14% compared to 2005, according to the Effort Sharing Decision (ESD). The latest data for 2013 show that Germany missed its annual allocation interim target under the ESD for the year 2013 by 0.7 percentage points (see figures in Table 2). National projections indicate that the country will miss its 2020 target by about 0.7 percentage points with existing measures (WEM) but will meet the target with additional measures (WAM) (EEA 2014a). The published Action Programme on Climate Protection might change this picture for the next update of projections. The share of GHG emissions not covered by the European Emission Trading Scheme (EU ETS) is around 50% in Germany, which is below the EU28 average.

[1] The European Environment Agency has developed a complex methodology to measure progress on the Non-ETS/ESD targets of all EU Member States. This report uses the figures derived on this basis. A detailed explanation and the underlying absolute amounts are contained in Annexes 1-3 of the EEA report No 6/2014 “Trends and projections in Europe 2014. Tracking progress towards Europe's climate and energy targets for 2020” available at http://www.eea.europa.eu/publications/trends-and-projections-in-europe-2014/

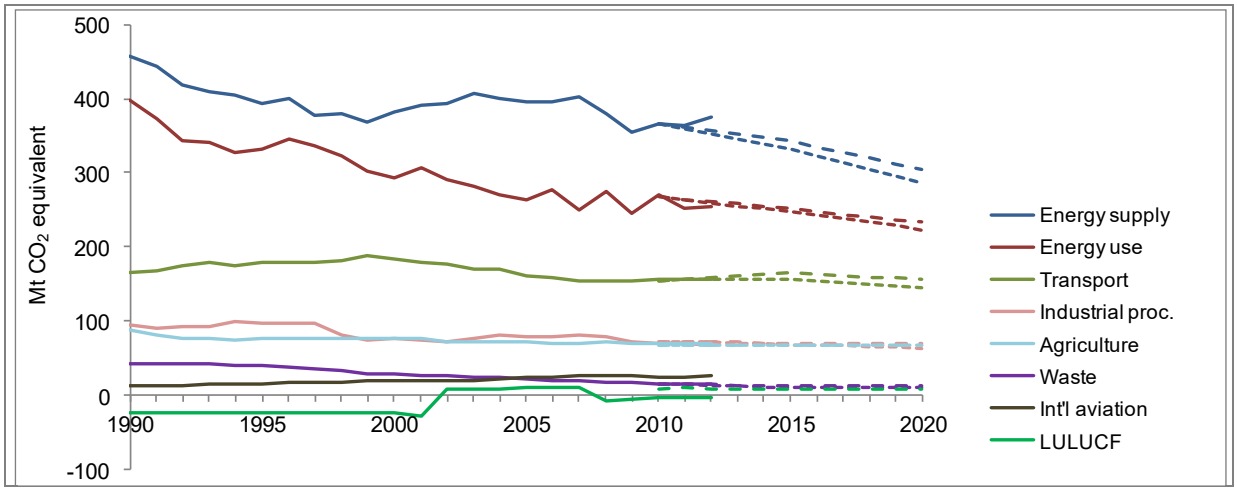
Table 2 Non-ETS emission targets, trend and projections

		Compared to base year
2013	ESD interim target	-4.5%
	ESD emissions	-3.8%
2020	ESD target	-14.0%
	ESD projections WEM	-13.3%
	ESD projections WAM	-17.6%

Source: EEA 2014a. Green indicates target met or exceeded, orange indicates a value below.

GHG emissions are mainly created by the energy industry followed by direct fuel consumption (e.g. households for heat generation) and the transport sector (see figure below for historic and estimated emissions by sector). Projections indicate that by 2020 emissions from the energy industry will be reduced as well as from direct fuel consumption; however, in both sectors emissions increased between 2010 and 2013—but may have been reduced in 2014. Transport emissions have been relatively stable since 2005.

Figure 1 GHG trends and projections by sector



Source: EEA 2014a. Actual data until 2012 and projections from 2010 onwards.

4 Policy development

This section covers significant developments made in key policy areas between January and December 2014. It does so through two different perspectives:

1) progress on the policies communicated under the National Reform Programme
2) developments in the identified national priority sectors and policy areas.

4.1 Key policies as outlined by the National Reform Programme

Member States prepare National Reform Programmes (NRPs) each April outlining the country's progress and the key policies and measures to achieve targets under the EU 2020 Strategy. These key policies and measures are summarised in the following and their current status is given.

Table 3 Key policies and measures as outlined by the NRP 2014

Reform of the Renewable Energy Sources Act	
Status in the NRP	The Federal Government will present a proposal for a fundamental reform of the Act by Easter 2014
Status as per Dec 2014	Reform of the Act entered into force on 1 Aug 2014.
Description of policy	See Chapter 4.4

Amendment to the Act on Energy Saving	
Status in the NRP	Amended Act on Energy Saving in force since 13 July 2013. Amended Energy Saving Ordinance will come into force on 1 May 2014.
Status as per Dec 2014	Both in force
Description of policy	Minimum energy performance requirements for new buildings will be increased from 1 Jan 2016 onwards; new buildings need to be nearly zero-energy buildings as from Jan 2020 onwards and for public buildings from 1 Jan 2019 onwards; extension of the obligation to take old boilers out of service; and energy performance certificates need to include information on the energy efficiency class.

Tax Cap and Efficiency System Ordinance	
Status in the NRP	In force since 6 August 2013
Status as per Dec 2014	In force
Description of policy	The ordinance sets requirements for a corporate energy or environmental management system, and the operation of an alternative system to improve energy efficiency for small and medium-sized enterprises if they want to get tax relief from the energy and electricity tax (the tax relief is only granted if appropriate energy efficiency systems are introduced).

Federal Requirement Plan Act to accelerate the electricity grid expansion	
Status in the NRP	In force since 27 July 2013
Status as per Dec 2014	In force
Description of policy	See Chapter 4.5

Ordinance on the Delegation of Planning Approval Procedures for Inter-Länder and Cross-border Extra-High Voltage Lines to the Federal Network Agency	
Status in the NRP	In force since 27 July 2013
Status as per Dec 2014	In force
Description of policy	See Chapter 4.5

4.2 National policy priorities

The sub-sections below provide updates on key existing and new policies in priority sectors and policy areas of relevance to the energy and climate targets under the Europe 2020 strategy[2]. Each sector or policy area contains information on the most important policy instruments in operation or development.

[2] The Consortium jointly with DG Clima identified these based on identified challenges in Country Profiles (EEA, 2014), share of sectors in total GHG emissions, and Country Specific Recommendations (2014). DG Clima has

4.2.1 Environmental Taxation

Germany has no explicit carbon tax in place. However, the implicit tax rate on energy is the seventh highest in the EU with EUR 185 per ton of oil equivalent in 2012 (with the EU average at EUR 173) (Eurostat, tsdcc360). The share of environmental tax revenues in overall tax revenue was 5.6% in 2012 and therefore below the EU average of 6.1% (Eurostat, ten00064). The same holds true for a comparison of environmental tax revenues with GDP, amounting to 2.2% in 2012 (Eurostat, ten00065). According to a paper by FÖS (2013), the relative importance of environmental taxes has been decreasing since 2004, mainly because fuel use decreased while income taxes increased.

The latest developments in this area include a proposal by the government to introduce a deduction of the income tax for investments in energy-efficient refurbishment of residential buildings (see Chapter 4.2.2) as well as an extension of the toll for lorries (see Chapter 4.2.5).

4.2.2 Energy Efficiency

Within the EU28, Germany has the sixth least energy-intensive economy. Energy intensity declined by 16% from 2005 to 2012 (Eurostat, tsdec360), while the final energy consumption dropped by only 2% from 2005 to 2012, with the reductions coming mainly from the residential sector (Eurostat, tsdpc320). Germany is currently not on track towards its indicative EU energy efficiency target (EEA 2014a).

In addition, Germany has even more ambitious national targets such as a 50% reduction of primary energy consumption by 2020 compared to 2008 and an average increase in final energy efficiency of 2.1% per year from 2008 to 2020 (see Chapter 2). As there is a risk for the country to miss these targets, the government published the new National Action Plan on Energy Efficiency (NAPE) on 3 Dec 2014. The Plan outlines immediate measures in the field of energy end-use.

The closing of old and inefficient coal-fired power stations has been discussed publicly during the introduction of the Action Programme for Climate Protection, which would improve overall efficiency of electricity generation and thus reduce primary energy consumption. However, this discussion has mainly taken place in public media and no official government strategy has been published on this issue so far.

The key measures in energy efficiency include energy taxation, which is above the EU average in Germany (see Chapter 4.2.1). However, the electricity and energy tax is partly reduced or reimbursed for energy-intensive industry based on changes to the Energy Tax and Electricity Tax Act 2012. From 2013 onwards, energy-intensive industries can only qualify for tax reliefs if they introduce energy or environmental management systems or appropriate alternative systems, and provided that the producing industry as a whole complies with the annual energy efficiency goals regulated by law.
In the building sector, the Energy Saving Ordinance (EnEV) sets minimum requirements for the energy performance of buildings and introduces energy performance certificates. The last amendment entered into force on 1 May 2014 increasing the energy efficiency performance requirements by 25% for new buildings starting from 1 January 2016. Furthermore, house owners have to replace oil and gas heaters installed before 1 January 1985 or older than 30 years by 2015 and the top floor or the roof of a building will needto be insulated. By 2021, all new buildings need to fulfil the ‘nearly energy neutral standard’. For public buildings, this obligation applies already from 2019 onwards. Compliance costs are estimated to be around EUR 234 million per year (or up to 1.7% additional costs per building) for residential buildings, up to EUR 899 million for non-residential buildings and up to EUR 72 million for governmental buildings. It is expected that the additional costs are “generally but not always compensated by the saved energy costs” (Bundesregierung 2013). The additional GHG emission reductions are estimated to be 0.7 Mt CO_2 by 2020 (additional energy consumption reduction is estimated to be around 1.5 PJ per year) (ISI et al. 2014).

Grants and low-interest loans are available for energy-efficient refurbishments of residential buildings

identified additional relevant issues to be reviewed for some or all Member States, including country specific energy challenges.

through the Building Modernisation Programme executed by the state-owned development bank KfW. In 2013, the government increased the budget of the programme by EUR 300 million to EUR 1.8 billion per year. This is estimated to lead to additional GHG emission reductions of around 0.8 Mt CO_2 up to 2020 (additional energy consumption reduction is estimated to be around 2.5 PJ per year) (ISI et al. 2014). Also new buildings complying with the EnEV are supported with low interest loans by the KfW. Assuming their application until 2050, the KfW programmes for energy efficiency refurbishments and efficient new buildings can potentially lead to a demand driven gross value added of around EUR 10 billion on average per year and an employment effect of 250,000 jobs (Prognos 2013).

The National Action Plan on Energy Efficiency (NAPE) outlines the following new measures that should be implemented already in 2015:

In order to improve the energy efficiency of buildings, the government wants to introduce a deduction of income tax for investments in energy-efficient refurbishments of residential buildings for the next 10 years. The overall budget for this programme will be EUR 1 billion per year and the deduction will be dependent on the energy performance standard after refurbishment. The total value of EUR 1 billion will be subtracted form the final tax liability to benefit all house owners who participated in the programme equally. However, the German States (Bundeslaender) still have to approve the proposal as they will lose the tax revenues (and not the federal budget). The government expects that a final decision will be taken by the end of February 2015. In addition, the budget of the Building Modernisation Programme will be increased by EUR 200 million to an overall budget of EUR 2 billion. The programme will then also support energy-efficient refurbishment of non-residential buildings.

Furthermore, the existing energy support and advice programme for owners will be improved including new checks of existing inefficient heating systems and labelling of old heating systems to raise awareness and incentivise investments.

The government also announced to publish an Energy Efficiency Strategy for Buildings which will give further details on how to achieve the long-term goal of having an almost carbon-neutral building stock by 2050.

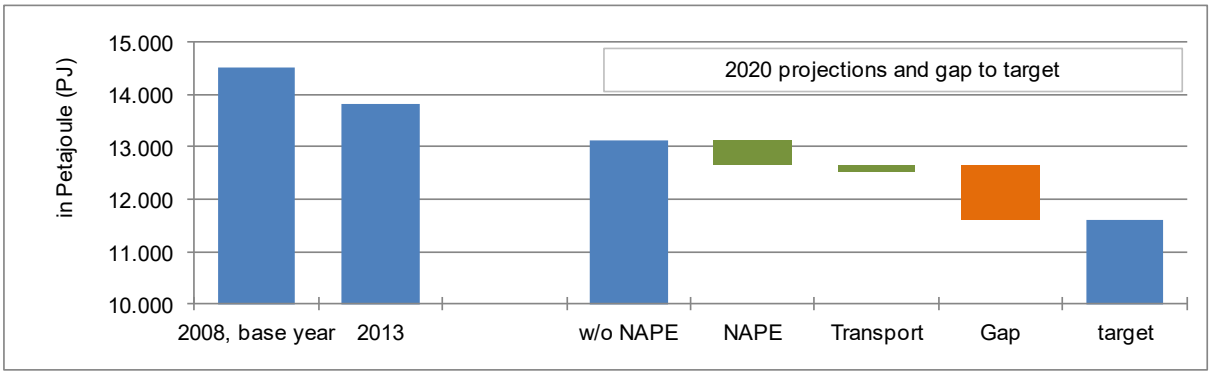
The new measures for buildings should lead to GHG emission reduction of around 3 Mt CO_2eq up to 2020 and a significant positive impact on job creation is expected as building renovation is associated with large domestic employment (NAPE 2014, ISI et al. 2014).

To improve efficient electricity consumption, the Action Plan foresees a tendering system that promotes projects with the greatest value for money (EUR per saved energy). There will be an open tendering system where different technologies and actors can compete as well as a closed tendering system for measures addressing technologies with high efficiency potentials such as the replacement of inefficient heating pumps, electricity to heat measures in industry or green IT. The pilot phase will start in 2015 with a budget of EUR 15 million which will be increased to EUR 50 million in 2016, EUR 100 million in 2017 and EUR 150 million in 2018. In 2018, the tender system will be improved based on an evaluation and might then also promote measures for efficient heating. Next to the tendering system, the government will support the market penetration and improvement of energy-efficient devices through its National Top-Runner-Initiative with a budget of EUR 6 million per year. The measures should lead to additional GHG emissions reductions of around 8.2 MtCO_2eq by 2020 and are associated with positive effects on growth and job creation (ISI et al. 2014).

For businesses, the government decided to implement an obligation to carry out an energy audit by 5 Dec 2015 and subsequently every four years. Small and medium sized enterprises are excluded from the obligation. Contracting will be promoted through guarantees of EUR 2 million for three years starting in 2015. In addition, the Energy Efficiency Programme of the KfW which promotes investments in efficient equipment and processes through loans at favourable conditions, is updated to adjust the support according to the realised energy saving. The initiative “Energy-efficiency networks” to distribute knowledge on best-practice among companies will further be promoted. These measures are expected to lead to additional GHG emission reductions of 10.9 Mt CO_2 by 2020 and are associated with positive effects on growth and job creation (ISI et al. 2014).

The immediate actions as outlined in the National Action Plan on Energy Efficiency (NAPE) are expected to lead to a reduction of the primary energy consumption of 390 to 460 PJ and a reduction of 25 to 30 million tCO_2 up to 2020. Additional measures in the transport sector outlined in the Climate Action Programme (see Chp. 4.2.5) will lead to an additional reduction of around 110 to 160 PJ. This results in a gap of around 900 PJ which should be closed by additional actions still to be determined in energy conversion and energy end-use.

Figure 2 Gap to achieving the 2020 primary energy consumption target in 2020



Source: own representation based on NAPE 2014

Investment barriers in the area of energy efficiency are diverse and vary depending on the sector and actors addressed. For example, energy efficiency measures in industry face barriers such as long payback periods, competing investments or effects on process reliability (ISI et al. 2014). Low investments in energy efficiency modernisations of residential buildings result inter alia from insufficient knowledge about the advantages of such modernisations, budget availability on the side of house owners and low energy prices for heating and related long payback periods e.g. for exterior insulation.

4.2.3 Renewable Energies

The share of renewables in gross final energy consumption was 12.4% in 2012, which is above the indicative 2012 target of 8.2% set out by the Renewable Energy Directive (RED). The average annual growth rate was 11% between 2005 and 2012. Thus, an annual growth rate of only 4.4% is needed between 2013 and 2020 to reach the 2020 target of 18% (EEA 2014a). The share of renewable electricity generation in final electricity consumption more than doubled from 10.5% to 23.6% from 2005 to 2012, while the share of renewable heating increased by more than half from 6.8% to 11.1% (Eurostat, SHARES 2014).

The RED target of 18% share of renewables in final energy consumption in 2020 is also stated in the Energy Concept broken down in sub-targets. In electricity, the share of renewables should increase to at least 35% in 2020 (Energy Concept), and then to 40-45% by 2025 and to 50-65% by 2035 (EEG 2014).

The main support mechanism for renewable electricity generation has so far been a feed-in tariff introduced as part of the Renewable Energy Law from 2000. The law was revised several times to introduce the option to shift to a market premium scheme, adjust feed-in rates to cost-reductions, change the coverage of technologies as well as the coverage of different biomass resources to new findings in particular with respect to sustainable biomass use. The Renewable Energy Law was then reformed in early 2014 and the changes entered into force on 1 Aug 2014.

Among others the following changes were made:

1) the premium system and direct marketing have become mandatory for new installations with support covering the difference between a rolling average wholesale price and the statutory support level;
2) the remuneration structure for new biogas plants was modified to incentivise power generation

according to demand and to favour the use of residue and/or organic waste;
3) support levels were reduced and will further automatically be reduced depending on over- or under-achievement of the predefined deployment corridor. This had already been in place for photovoltaics and is now also introduced for wind and bioenergy;
4) the support will in the future be focused on the most cost-efficient technologies;
5) in the next two years tendering will be tested for ground-mounted photovoltaics and by 2017 will be used for the expansion of renewable electricity production from different sources. In addition, installations whose capacity is larger than 10 kW will have to pay 30% of the surcharge on their internal electricity consumption from 2014 onwards (with increases to 40% foreseen by 2017) (has not been enforced so far) (EEG 2014).

The changes to the Act are likely to lead to a reduced growth of renewable capacities which in turn also reduces the macroeconomic value added. IÖW (2014) estimates that the changes will lead to 16% less value added by 2020 compared to the business as usual scenario, and that the employment benefits from investments are expected to decrease by 20% compared to 2012.

Main barriers for further investments therefore include these reductions in support levels especially for PV and wind power. Furthermore, the change in the support system adds administrative burden and risks on the side of renewable electricity producers and this could also result in rising interest rates for project finance.

The domestic target for renewable heating and cooling is a share of 14% in 2020. The principal instrument to promote renewables in heating and cooling is the Renewable Energies Heat Act. It obligates owners of new buildings as well as of buildings in possession of public authority undergoing major renovations to cover a specific share of the heating and cooling with renewable energies. The share depends on the chosen technology. The Act led to a reduction of GHG emissions of 217,000 tCO_2 in 2011 (BMU 2012). Financial support for renewable heating and cooling systems in existing buildings is provided by a market incentive programme (MAP) that offers low interest loans and grants for investments. About 621,000 tCO_2eq were reduced by measures supported by the programme in 2011 (BMU 2012).

The main barriers to further investments in renewable heating seem to be knowledge gaps and higher upfront costs compared to fossil alternatives. In addition, the market incentive programme imposes considerable administrative burden and public awareness could be improved. Another major barrier seems to be the landlord/tenant dilemma (Keep on Track 2014), which mainly refers to disincentives arising from the distribution of costs and benefits of energy efficiency refurbishments between landlords and their tenants.

4.2.4 Energy Networks

Germany already meets the EU interconnection target of at least 10% of its installed production capacity by 2020. The current level is between 10 and 15% of its capacity. However, additional interconnection might be required to meet the 2030 target of at least 15% by 2030 (REE 2012 based on ENSO-E).

The government has taken several measures to speed up the expansion of the electricity network: the 2009 Power Grid Expansion Act (EnLAG) defined 24 priority grid expansion projects for which the approval process is accelerated. Following further delays in the network expansion, the government approved the Grid Expansion Acceleration Act (NABEG) and the amendment of the Energy Industry Act (EnWG) in 2011 which defines a simplified approval process for most important cross-border and grid connections crossing German states.

The current Energy Industry Act requires that the German transmission system operators collaborate to develop a new grid development plan every year. Every three years the Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railway (Bundesnetzagentur) gives the German government an approved grid development plan and an environmental report to be used as a draft for the Federal Requirement Plan.
In July 2014 the new Federal Requirement Plan Act entered into force identifying priority transmission grid projects for which the planning and approval processes are accelerated. In total, 36 priority

projects are listed in the Act. 15 of the projects are inter-state transmission lines while one cross-border transmission line from Germany to Austria is listed.
In addition, the responsibility for implementation of inter-state and cross-border transmission line approval procedures were handed over to the Federal Network Agency to speed-up the building of these transmission lines.

4.2.5 Transport

GHG emissions as well as energy consumption from transport have slowly decreased in Germany between 1990 and 2012 but have been relatively stable since 2005 (Eurostat, tsdcc210 and tsdpc320). In 2012, emissions from transport amounted to 16% of total GHG emissions. Average emissions of newly registered passenger cars are high at a level of 136.1 gCO_2/km (seventh highest in the EU) although they have decreased by 22 % between 2005 and 2012, which is equivalent to the average EU rate (Eurostat, tsdtr450). Fuel taxation in Germany is above the EU average. The road fuel excise duties on petrol are the sixth highest among EU MS, and the excise duties on diesel are the fifth highest (EEA 2014b).

Germany has a car ownership tax but does not apply a registration tax (ACEA 2014). Cars emitting less than 110g/km are exempted from the CO_2-related part of the ownership tax for ten years. The exemptions include all types of electric vehicles. Lorries pay a distance-based toll for using motorways and federal highways (CE Delft 2012).

Germany has published a Mobility and Fuel Strategy, a so-called 'learning strategy' that aims at providing information and orientation on the current situation, opportunities and challenges for alternative fuel options and innovative powertrains. It is supposed to provide stakeholders with a knowledge base on energy and technology related aspects in the transport sector, as well as to analyse necessary frameworks and prioritise targets. The strategy mainly focuses on fuels and does not address broader questions of future mobility, as the title might lead to expect. Key measures to reduce GHG emissions and energy consumption include - next to taxation - the support of renewables in transport through a quota obligation. From 2015, a greenhouse gas reduction quota will replace the biofuels quota (RES legal 2014). There is also a tax relief for pure biofuels that are not used to fulfil the biofuels quota.

In the Action Programme for Climate Protection there are additional measures listed for the transport sector which will lead to additional GHG emission reduction of 7-10 million tCO_2eq by 2020. The following measures will be implemented starting in 2015:

- The level of the distance-based toll for lorries will depend on the energy consumption of the lorry.
- In addition, the toll will be extended to include all lorries with a weight of at least 7.5 tonnes.
- An additional 1,100 km of federal highways will be included and the external costs of air pollution will be considered in the road toll in 2015.
- In 2018, the toll will be extended to all federal roads.
- The government will also support energy-efficient cars and lorries through a support programme for market penetration and required infrastructure such as for electric vehicles.
- Moreover, investments in the railway system and waterways are planned for 2016 and 2015 respectively.
- Also bicycle and pedestrian infrastructure are meant to be improved.

5 Policy progress on past CSRs

The EU Commission provides Country Specific Recommendations (CSRs) for each MS for consideration and endorsement by the European Council. The recommendations are designed to address the major challenges in relation to the targets of the EU 2020 Strategy. In the following table, the CSRs relevant for climate change and energy are listed, and their progress towards their implementation is assessed.

Table 4 Country Specific Recommendations of 2014

Existing CSR	Progress
Keep the overall costs of transforming the energy system to a minimum. In particular, monitor the impact of the Renewable Energy Act reform on the cost-effectiveness of the support system for renewable energies.	The reform of the Renewable Energy Act (EEG) entered into force in August 2014 (see also Chapter 4.2.3). Any impacts of the reform might therefore only become visible in 2015 (BMWi 2014). The first progress report is due by 31 Dec 2018; the first monitoring report was due by 31 Dec 2014 (§97 and 98). The monitoring report is to be integrated into the monitoring process of the German energy transition (§98). The combined reporting obligation was met with the publication of the monitoring report on 3 December 2014 (see also Chapter 2).
Reinforce efforts to accelerate the expansion of the national and cross-border electricity and gas networks.	In July 2014 the new Federal Requirement Plan Act (Bundesbedarfsplangesetz) entered into force indentifying priority transmission grid projects for which the planning and approval processes are accelerated. In addition, the responsibility for implementation of inter-state and cross-border transmission line approval procedures were handed over to the Federal Network Agency (Verordnung über die Zuweisung der Planfeststellung für länderübergreifende und grenzüberschreitende Höchstspannungsleitungen auf die Bundesnetzagentur) (see also Chapter 4.2.4)
Step up close energy policy coordination with neighbouring countries.	Germany engages closely with its neighbouring countries in various bottom-up approaches towards regional collaboration, such as in the Pentalateral Energy Forum on market integration and security of supply (with NL, BE, LU, FR, AT); in the Central and Eastern European Electricity Forum for market integration and network infrastructure (with PL, CZ, SI, SK, HU, AT); or the North Seas Countries' Offshore Grid Initiative (with NL, BE, LU, FR, GB, DK, NO, SE). This does not necessarily imply that the CSR has been fully implemented but indicates that there are various processes under way to enhance coordination.

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