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ANNEX 3

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**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN  
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL  
COMMITTEE, THE COMMITTEE OF THE REGIONS AND THE EUROPEAN  
INVESTMENT BANK**

**Third Report on the State of the Energy Union**

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### **Annex 3 - State of Progress towards the National Energy and Climate Plans**

This document is based on information received from Member States or from Commission sources.

#### **Austria**

Austria is at an initial stage regarding the development of the integrated national energy and climate plan (NECP) for the years 2021 to 2030. The Austrian Energy Strategy (2010) is currently under review: in this context Austria is already working on an integrated strategy as a basis for the NECP. A Green Paper was published in June 2016, launching a broad public consultation (online and working groups) that closed in December 2016. The results of the consultation will be considered for the drafting of the White Paper (integrated energy and climate strategy). The analytical base and related scenarios are prepared by the Federal Environment Agency and the Austrian Institute of Economic Research (WIFO).

Targets for the forthcoming integrated national energy and climate plan (such as greenhouse gas emissions reductions, renewable energy, energy efficiency and others) are yet to be decided. A low-carbon development strategy is under preparation.

#### **Belgium**

Belgium is at an initial stage regarding the development of an integrated national energy and climate plan (NECP) for the years 2021 to 2030. The country has established a steering group composed of federal and regional representatives from energy and environment ministries; as well as a sub-working group on projections for the development of the analytical base and specific sub-working groups for the five dimensions of the Energy Union. Possibilities for regional collaboration are being explored within the Penta-lateral Energy Forum.

At the national level, a written stakeholder consultation took place on the so-called "energy pact" – preparing a long term global energy vision. A second on-line public consultation is taking place targeting ordinary citizens. A political agreement between the four competent Ministers for energy in Belgium is expected to be reached by the end of 2017 and will form the strategic basis of the NECP for the energy part of the policies and measures. Regional stakeholder consultations also took place ("Stroomversnelling", Flemish Region); "Sommet Air-Climat-Energie" (Walloon Region).

In July 2013 a Federal Royal Decree put forward a Long Term Policy Vision on Sustainable Development, which includes a greenhouse gas reduction commitment of at least 80 to 95% between 1990 and 2050. Similarly, in early 2014, the Parliament of the Walloon Region adopted the "Walloon Climate Decree", setting reduction objectives for total greenhouse gas emissions at -30% between 1990 and 2020, as well as -80% to -95% between 1990 and 2050. The decree will be instrumented through a new Air-Climate Plan up to 2030. On 28 September 2017, the Walloon Parliament also adopted a climate resolution which, in particular, calls for Wallonia to reduce emissions by -95% by 2050. The Flemish Government

adopted a long term energy vision and a low-carbon development strategy for 2050 is under preparation and expected to be adopted in the first half of 2018. The Flemish energy and climate plan is envisaged for the second half of 2018. Finally, the Brussels Capital Region committed to a 30% greenhouse gas emissions reduction by 2025 (compared to 1990). A first integrated Regional air, climate and energy plan is being deployed while work on a 2050 low carbon strategy is well underway. Possible additional measures (2030) will be examined in this context.

## **Bulgaria**

Bulgaria is at an initial stage regarding the development of an integrated national energy and climate plan (NECP) for the years 2021 to 2030. An inter-ministerial working group (chaired and coordinated by the Ministry of Energy) has been set up. The working group intends to involve stakeholders beyond the ministerial level – such as executive agencies with expertise and experience in modelling and projections, the Parliament, non-governmental organisations and others. The working group will identify sensitive areas which will require additional expertise and has approached the Commission with a formal letter of interest for technical and process assistance.

Furthermore, Bulgaria is currently developing its National Energy Strategy to 2030, with a vision to 2050. The intention is to develop this strategy and the NECP in parallel in order to benefit from synergies, common analytical tools and data sources. It also intends to develop a low-carbon development strategy to succeed the Third National Action Plan on Climate Change (NAPCC) for 2013-2020.

## **Croatia**

Croatia is at an initial stage regarding the development of an integrated national energy and climate plan (NECP) for the years 2021 to 2030.

It has a National Energy Strategy for the years 2009 – 2020 in place which will be revised before the first quarter 2019.

A draft Strategy for Low Emissions Development by 2030 with an outlook by 2050 was submitted to public consultation until July 2017. Once adopted by the Parliament, the Strategy for Low Emissions Development as well as the expected revised Energy Strategy will be used to prepare the integrated national energy and climate plan.

## **Czech Republic**

The Czech Republic is at an initial stage regarding the development of an integrated national energy and climate plan (NECP) for the years 2021 to 2030. This applies both to the institutional arrangements, public consultations, regional cooperation and the development of an analytical base.

Since 2015, the Czech Republic has a State Energy Policy with a time horizon until 2040 and sub-targets. The State Energy Policy addresses four of the five dimensions of the Energy Union: decarbonisation, energy efficiency, internal market and security of supply. Indicative indicators and targets include:

- a 40 % reduction of CO<sub>2</sub> emissions by 2030 in comparison to 1990 levels;
- energy savings in 2020 by 20 % against a business as usual scenario;
- a share of annual electricity production from domestic primary sources of at least 80% (renewable energies, secondary sources and waste in electricity account for 18–25%);
- an import dependency not exceeding 65% by 2030 and 70% by 2040.

Moreover, the Climate Protection Policy (as Czech low-carbon development strategy) with greenhouse gas emission reduction targets for 2030 and 2040 has been adopted in March 2017.

## **Cyprus**

Cyprus is at an initial stage regarding the development of an integrated national energy and climate plan (NECP) for the years 2021 to 2030. Cyprus is in a preparatory phase as regards the institutional arrangements, and has undertaken a number of studies serving the long-term planning in the areas of energy and climate. No targets are set yet beyond 2020, but the studies will allow setting national targets and outlining the most cost-efficient policies and measures to achieve those targets. With most studies nearing completion, Cyprus will proceed with the drafting of the National Action Plan for Energy and Climate for the years 2021-2030.

## **Denmark**

Denmark is at an initial stage regarding the development of an integrated national energy and climate plan (NECP) for the years 2021 to 2030. It has yet to start the drafting and carry out public consultations, and is in an initial phase regarding the political arrangements. Denmark nevertheless expects to be able to prepare a draft NECP by 1 January 2018. Working groups have been established with the participation of the Danish Ministry of Energy, Utilities and Climate and the Danish Energy Agency. As regards the analytical part, the Danish Energy Agency has developed a "frozen policy" scenario that will serve as a benchmark when considering new policies and measures. According to the Danish authorities, both the new energy agreement and the non-ETS strategy will, in practical terms, serve as part of the basis for preparing a draft NECP. With regard to regional cooperation, Denmark highlights the good dialogue with the other Nordic countries and the existing cooperation, although it has not been extended yet to the scope of the integrated NECP.

In Denmark, there is an Energy Agreement for the years 2012–2020. A new energy agreement for the period after 2020 is currently under development, but it will probably not be adopted before 2018. In 2017, the Government is planning to prepare a cost-effective strategy for

meeting the country's greenhouse gas emissions reduction target in non-ETS sectors during the period 2021–2030.

## **Estonia**

Estonia is at an initial stage regarding the development of an integrated national energy and climate plan (NECP) for the years 2021 to 2030. The institutional arrangements are advanced. Estonia will use both the General Principles of Estonian Climate Policy and the National Development Plan of the Energy Sector as a basis to develop the NECP. On these, Estonia has indicated that public consultation is about to be finalised but public consultation on the NECP is still to be launched.

In the first half of 2017, Estonia approved its low-carbon strategy “General Principles of Estonian Climate Policy until 2050”. It will set a roadmap for Estonia to move towards a competitive low carbon economy and to reduce greenhouse gas emissions in energy, transportation, industry, agriculture, forestry and waste management by at least 80% by 2050, compared to 1990 levels. In October 2017, the Government approved the National Development Plan for the Energy Sector until 2030. Expected outcomes for 2030 are:

- greenhouse gas emissions from energy sector reduced by 70% (base year 1990);
- renewable energy sources: 50% of final energy consumption including statistical transfers to other EU Member States;
- energy efficiency: final energy consumption in 2020 and 2030 at the same level as in 2010;
- primary energy supply: 57.7 TWh.

The National Development Plan for the Energy Sector until 2030 includes also plans for regional cooperation, particularly with Latvia and Lithuania.

## **Finland**

Finland is advanced as regards the development of an integrated national energy and climate plan (NECP) for the years 2021 – 2030, The Finnish NECP will be prepared on the basis of the Government Report on Energy and Climate Strategy for 2030 (autumn 2016), Medium Term Climate Policy Plan (autumn 2017) and other relevant documents. Although further work is needed, the preparation of the NECP is expected to rely on the same institutional arrangements as for previous initiatives. Regarding public consultation, the preparatory stage of the Energy and Climate Strategy for 2030 already involved an extensive web-based public hearing as well as thematic stakeholder seminars. On regional cooperation, the Strategy was discussed at technical level under the auspices of the Nordic Council of Ministers. The development of the analytical base for the NECP is also fairly advanced.

With its Parliamentary Energy and Climate Roadmap 2050 (2014), the Climate Act (2015), the Government Report on Energy and Climate Strategy for 2030 (2016) and the recently

adopted Medium Term Climate Policy Plan, Finland has set in place concrete policies and a number of medium-term objectives and targets on a path towards sustainable and low-carbon economy. These include:

- greenhouse gas emissions from non ETS reduced by 39% in 2030 and a minimum of 80 % by 2050 compared to 1990 levels; aiming for a carbon-neutral society.
- phase out the use of coal for energy, with minor exemptions, by 2030;
- renewable energy sources to account for over 50 % of the final energy consumption in the 2020s;
- an increase of the share of biofuels in road transport to 30% by 2030.

## **France**

France is at an initial stage regarding the development of an integrated national energy and climate plan (NECP) for the years 2021 to 2030. France considers that the NECP would require that the existing National Low Carbon Strategy (November 2015) and the Multiannual Energy Programme (October 2016) be included and merged together with the National Energy Research Strategy (December 2016). France is continuously developing its analytical base and updating its scenarios.

The Act on Energy Transition for Green Growth (loi relative à la transition énergétique pour la croissance verte) is in force and forms the legal basis for the Low Carbon Strategy and the Multiannual Energy Programme. Both are to be revised in the forthcoming months and adopted by the end of 2018 (to be noted that the Government's Climate Plan of 6 July 2017 foresees that the future Low Carbon Strategy will aim at carbon neutrality by 2050). Targets include:

- greenhouse gas emissions reduction: 40% in 2030, 75% in 2050 (compared to 1990 levels);
- renewable energy sources: 32% of final energy consumption in 2030;
- energy efficiency: 20% reduction of final energy consumption by 2030 and 50% reduction of final energy consumption by 2050, both compared to 2012.

## **Germany**

Germany is advanced regarding the development of an integrated national energy and climate plan (NECP) for the years 2021–2030. At administrative level, coordination is led by the Federal Ministry for Economic Affairs and Energy and through regular meetings of dedicated intra-ministerial NECP working and steering groups.

As regards the analytical part of the plan, Germany is continuously developing its analytical base including sector-specific studies, research on projections of the German energy system and on impact assessments as well as studies on the consistency of national and EU data base.

In addition, internal preparations have started for the public consultation and regional cooperation.

As regards the political part of the plan, Germany has started to develop national objectives, policies and measures for the five dimensions of the Energy Union, in particular the 2030 targets for energy and climate. The process benefits from synergies with policies and measures that are developed as part of the Climate Action Plan 2050. Coherence with the analytical part is ensured in this process.

Also, the Federal Ministry for Economic Affairs and Energy initiated the external communication on the NECP process towards decision-makers, stakeholders, academia and the broader public, insisting on its role as a vital part of the Energy Union framework strategy.

The German NECP will be informed by several national energy and climate policies such as the German Energy Concept, the National Action Plan on Energy Efficiency, the Climate Action Programme 2020, the Energy Efficiency Strategy for Buildings, the Climate Action Plan 2050, the Green Paper on Energy Efficiency, the discussion paper “Electricity 2030”, and the 6<sup>th</sup> Energy Research Programme of the Federal Government (7<sup>th</sup> Energy Research Programme will be passed soon and equally feed into the NECP).

## **Greece**

Greece is at an initial stage regarding the development of an integrated national energy and climate plan (NECP) for the years 2021–2030. Greece is planning to establish a ministerial steering committee and will be supported by technical working groups with the participation of different authorities and research centres institutions, such as the Ministry of Environment and Energy, the Centre for Renewable Energy Sources and Saving (CRESS) and others as required. For the analytical base Greece is planning to build on existing data and modelling experience.

No targets for energy efficiency and renewable energy beyond 2020 have been set.

## **Hungary**

Hungary is advanced regarding the development of an integrated national energy and climate plan (NECP) for the years 2021–2030, having identified already existing initiatives on which the plan can be built, existing indicators and analysis, and remaining gaps. A working group has been created with the relevant departments of the Ministry of National Development. Hungary is continuously developing its analytical base.

Since 2011, Hungary has a National Energy Strategy 2030, which is updated biennially. The Second National Climate Change Strategy for the period 2017–2030 has been adopted in mid-2017, with an outlook to 2050. Greenhouse gas emissions reduction targets are (compared to 2005 levels):

- 7% in 2030 in non-ETS sectors and;

- 43% in 2030 in ETS sectors.

In its National Building Energy Performance Strategy of 2015, Hungary targets savings of 111 petajoule by 2030, to be achieved in the primary energy consumption of buildings.

## **Ireland**

Ireland is at an initial stage regarding the development of an integrated national energy and climate plan (NECP) for the years 2021 to 2030. The preparation of the NECP has not yet started, however, the first draft National Mitigation Plan was released in March 2017 for public consultation and published in its final form in July. The Plan is intended to be a living document, to which mitigation measures will be added iteratively. It will help inform Ireland's work towards its NECP. For the development of the analytical base, work in relation to the National Mitigation Plan will also serve for the preparation of the NECP.

The Energy White Paper "Ireland's Transition to a Low Carbon Energy Future 2015-2030", the National Policy Position on Climate Change (2014) and the Climate Action and Low Carbon Development Act (2015) provide a policy and statutory basis to pursue transition to low carbon, climate resilient and environmentally sustainable economy by 2050, inter alia through the preparation of periodic National Mitigation Plans (that will cover the period to 2050) and Adaptation Frameworks.

## **Italy**

Italy is advanced regarding the development of an Integrated National Energy and Climate Plan (NECP) for the years 2021–2030. The Italian Energy Strategy (recently presented) represents a first step in the process and will allow deepening the specific national policy measures to fulfil the EU's 2030 targets for energy and climate.

The Energy Strategy has been prepared following a consultation process involving all relevant public administrations, the National Parliament, industries association, research institutes and other Italian stakeholders. The strategy was under formal public consultation until 15 September 2017. After the comments received will have been reviewed, the Strategy will be formally adopted

The strategy is based on the priorities of the Energy Union and goes in the direction of the Commission's proposal for a Regulation on the Governance of the Energy Union. It provides a framework for national policies that, in coherence with European objectives and international commitments, pursue the optimal balancing of three goals: strengthen the competitiveness of EU economy, de-carbonize also through innovation and technology, and ensure security of supply in the changing international scenario with flexibility and diversification. The Italian Government is notably considering: a national renewable energy objective for 2030 of 27% (48-50% for electricity; 28-30% for heating and cooling; and 17-19% for transport with strong focus on biofuels); and the full phase out of coal by 2025-2030.

## **Latvia**

Latvia is at an initial stage regarding the development of an integrated national energy and climate plan (NECP) for the years 2021 to 2030. The political process is expected to accelerate once a National Position paper will have been adopted (currently in inter-institutional coordination). Initial discussions between the Commission and representatives of the Latvian government indicate that support may be requested in preparing the analytical section of the integrated NECP. Specifically, this could include practical recommendations to improve assumptions and modelling input data.

The Sustainable Development Strategy of Latvia until 2030 sets a 45% greenhouse gas emissions reduction target compared to 1990 levels. The Latvian Energy Long-Term Strategy 'Competitive Energy for Society' indicatively informs about renewable energy and energy efficiency targets for 2030:

- renewable energy sources: 50% of renewable energy in gross final energy consumption;
- energy efficiency: reduce average consumption of thermal energy for heating by 50%.

## **Lithuania**

Lithuania is at an initial stage regarding the development of an integrated national energy and climate plan (NECP) for the years 2021 –2030, having established an inter-ministerial group. Public consultation and regional cooperation are still in preparatory phase. Lithuania intends to build on existing regional cooperation in the Baltic Energy Market Interconnection Plan (BEMIP). The development of the analytical base is ongoing on the basis of the analysis prepared in 2015 for the foreseen update of National Energy Independence Strategy (2012). Lithuania expects the Baltic Energy Technology Scenario study, of which a first draft will be ready in October 2017, to support the development of the NECP.

Lithuania is currently updating a National Energy Independence Strategy with the targets for 2030 and vision for 2050 (planned adoption at the end of 2017). Renewable energy and energy efficiency targets will be defined in the Strategy. On security of supply, Lithuania can build on the current and future National Energy Independence Strategy (2012 and 2017) and BEMIP Action Plan including various concrete projects.

The Strategy for the National Climate Change Management Policy lays down the targets and objectives for climate change mitigation and adaptation by 2050. Legally binding short-term climate change mitigation targets by 2020 are set in line with the EU climate and energy 2020 framework. The Strategy also lays down indicative medium-term and long term climate change mitigation targets that Lithuania will contribute towards, i.e. the implementation of the EU greenhouse gas emission reduction targets: reducing these emissions by at least 40% by 2030, 60% by 2040 and 80% by 2050, compared to 1990 levels. Upon the adoption of EU legal acts on the implementation of the EU 2030 climate and energy framework, the Strategy will be revised.

## **Luxembourg**

Luxembourg is at an initial stage regarding the development of an integrated national energy and climate plan (NECP) for the years 2021 - 2030. Existing national plans are currently being analysed and data is gathered in order to have a more solid and coherent analytical base.

Luxembourg has a new national post-2020 energy strategy under preparation; with finalisation scheduled for the beginning of 2018. Together with the Low Carbon Development Strategies under preparation, the strategy will set electricity, oil, gas, energy efficiency and renewable energy targets for 2030. Luxembourg will build on a number of existing renewable energy and energy efficiency plans and strategies that have a time horizon until 2020 and sometimes beyond.

## **Malta**

Malta is at an initial stage regarding the development of an integrated national energy and climate plan (NECP) for the years 2021–2030, having set up an ad-hoc institutional arrangement for developing the NECP. The analytical base is being developed with ongoing data collection and modelling reviewing.

Malta is participating in the technical support programme financed by the Commission, mainly in relation to technical assistance on integrated climate and energy projections. Moreover, Malta's request for assistance under the first call of the Structural Reform Support Programme has been accepted. Malta has a Low-Carbon Development Strategy with a time horizon until 2050 under preparation with finalisation scheduled for 2019. No targets are yet set beyond 2020.

## **The Netherlands**

The Netherlands is advanced regarding the development of an integrated national energy and climate plan (NECP) for the years 2021–2030. It has focussed on the analytical part of the NECP, and is currently in the process of developing the national objectives, targets, policies and measures. Policy advisors and experts from ministries and planning offices and agencies are identifying the available and missing data as well as starting with filling in the proposed format where possible.

The NECP will be based on the Energy Agenda published by the outgoing government, which is currently being further elaborated. The Energy Agenda was adopted at the end of 2016 and focuses on greenhouse gas emissions reductions that are necessary to realise the climate goals agreed in Paris in 2015. Renewable energy and energy efficiency are considered as instruments to reach the goal of 80–95% reduction of greenhouse gas emissions by 2050. In preparation for the Energy Agenda, a dialogue took place with stakeholders. Another element is the Energy Agreement that the Government signed in 2013 with over 40 national stakeholders (business, local governments and non-governmental organisations). Whereas this

is focused on the interim 2023 target, specifically for the transport sector it also agreed for 17% reduction by 2030 and underlined the 60% reduction target by 2050.

The new Dutch government has committed to a more ambitious climate policy, which will be laid down in a new Climate Law and an extension of the Energy Agreement to 2030.

## **Poland**

Poland is at an initial stage regarding the development of an integrated national energy and climate plan (NECP) for the years 2021–2030, having an inter-ministerial team in place. The preparation of a draft NECP started in January 2017. The Ministry of Energy is currently conducting different analyses for the purpose of the NECP; the tender for preparation of the analytical part has been launched and simultaneously the proposals of the policies and measures are being prepared.

The Polish Energy Policy until 2030 is in place since 2009. Targets are achieving zero-energy economic growth, i.e. economic growth with no extra demand for primary energy and reducing the energy intensity of the Polish economy to the EU-15 level. The Energy Policy of Poland until 2050 is under preparation, together with sectorial programmes for coal.

## **Portugal**

Portugal is at an initial stage regarding the development of an integrated national energy and climate plan (NECP) for the years 2021–2030. The cooperation between the Ministry of Economics and the Ministry for the Environment was established through the creation of an energy and climate expert group that is working together to elaborate the Portuguese NECP.

Portugal has also worked on the necessary analytical basis. It can build on long-term energy and climate plans and roadmaps, including the Low Carbon Roadmap for 2050, the Portugal Green Growth Commitment and the National Programme for Climate Change 2020/30 set up in 2015 (PNAC 2020/2030). These documents provide 2030 targets including:

- renewable energy: 40% of total final energy consumption;
- energy intensity: from 129 toe/€M of GDP in 2013 to 101 toe/€M of GDP;
- interconnections: 15% electricity interconnection level;
- greenhouse gas emission reductions: 52.7–61.5 Mt CO<sub>2</sub> (dependent on the outcome of EU legislative process on EU 2030 climate legislation).

The Portuguese Government announced at COP 22 the national objective to reach carbon neutrality by 2050. To this end, a new modelling exercise with a 2050 horizon is under preparation to identify and analyse the implications associated with cost-effective trajectories, as well as the main decarbonisation vectors associated within the framework of the development of a Roadmap for 2050 Carbon Neutrality in Portugal. This exercise will take place during 2017-2019 with the coordination of the Environment Ministry and will involve relevant stakeholders from different sectors (energy, transport, industry, waste, LULUCF,

agriculture, water, etc.). It will form an important contribution for the climate related aspects of the NECP and will feed into the work of the climate and energy expert's group mentioned earlier.

## **Romania**

Romania is at an initial stage regarding the development of an integrated national energy and climate plan (NECP) for the years 2021–2030. A public consultation is ongoing on the draft revised Energy Strategy that will contribute to the NECP. The development of the analytical base for NECP is ongoing, with the development of reference and policy scenarios.

The Romanian Energy Strategy for 2009 to 2020 is currently under review, in order to cover the years 2016 to 2030, with a view to 2050. Approval is expected in the course of 2018, following an environmental assessment. Targets for renewable energy and energy efficiency remain to be set. Romania has a 2016 National Strategy on Climate Change and growth based on low-carbon economy for the period 2016 - 2020.

## **Slovakia**

Slovakia is at an initial stage regarding the development of an integrated national energy and climate plan (NECP) for the years 2021–2030, having set up a working group for the development of the analytical base of the NECP where all relevant ministries, as well as Regulatory Office for Network Industries, are involved. A range of stakeholders has been involved in consultation of the template of the NECP. Slovakia has asked the Commission for technical support in preparation of the plan. Contacts with the contractor were made in September 2017, overall scope of work is under discussion and in-country meetings with the contractor are expected in autumn 2017.

Slovakia has an Energy Policy (2014) with a time horizon until 2035 and an outlook to 2050. A Low-Carbon Development Strategy is under preparation and expected to be finalised in the spring 2018.

## **Slovenia**

Slovenia is at an initial stage regarding the development of an integrated national energy and climate plan (NECP) for the years 2021 to 2030. It is in the process of establishing an inter-service working group from responsible ministries which will coordinate its preparation.

Slovenia has an Operational Programme for reducing greenhouse gas emissions by 2020 with an outlook to 2030. The Operational Programme sets indicative sectorial targets to reduce greenhouse gas emissions in the non-ETS sectors. In June 2017, the Ministry of Infrastructure published a first document for public debate on the new Energy Concept of Slovenia until 2050. The Concept (still under public consultation) is expected to set an objective to reduce greenhouse gas emissions by 80% by 2050 compared to 1990 and to reach a share of at least

52% renewable energy sources. The draft document also foresees an increase in the share of renewable energy in final energy consumption to 27% by 2030.

The Action Plan for renewable energy with a time horizon until 2030 is under revision. The long-term strategy for mobilising investment in the renovation of the national building stock aims, by 2030, to reduce final energy consumption in buildings by 30 % compared to 2005, to have at least two thirds of all energy used in buildings from renewable sources and to renovate 26 million m<sup>2</sup>.

## **Spain**

Spain is at an initial phase regarding the development of an integrated national energy and climate plan (NECP) for the years 2021 –2030. As part of the inter-institutional arrangements, the inter-ministerial group created for the development of the Law of Climate Change and Energy Transition and the NECP has already started working, having its first meeting in April. Public consultation on the NECP and regional cooperation are to be carried out. The development of the analytical base for the NECP is ongoing.

So far, there are no national targets for the period after 2020. In July 2017 the Spanish Government launched an expert Commission to be in charge of defining and studying scenarios for the energy transition. It will prepare a report analysing different options for energy and climate policies to achieve the European objectives. The report will be finalised by the end of the first quarter of 2018. Spain is currently reviewing its Strategy for Climate Change and Clean Energy and the Non-ETS Sectors Roadmap 2020, in order to cover a horizon up to 2030. The Spanish Government intends to present in this legislature a Law of Climate Change and Energy Transition; a public consultation has been launched.

## **Sweden**

Sweden is advanced regarding the development of an integrated national energy and climate plan (NECP) for the years 2021–2030. The preparation is under the responsibility of Swedish Energy Agency. A public consultation is foreseen to take place in January 2018 and the draft NECP is expected to be ready in the beginning of 2018. With regards to regional cooperation, Sweden highlights its generally good dialogue with the other Nordic countries. Sweden has reached a political agreement for a long-term energy policy in June 2016. The proposals from the Parliamentary Energy Policy Commission (January 2017) are:

- 100 % renewable electricity production in 2040, but no ban on nuclear;
- energy intensity (TPES/GDP) to be halved 2005-2030;
- prolongation and raised ambition of the electricity certificate system until 2030.

On climate, the Swedish Parliament adopted a national Climate Policy Framework in June 2017. It consists of a Climate Act, new national climate targets and a climate policy council.

## Climate targets:

- no net emissions of greenhouse gases into the atmosphere by 2045 and thereafter negative emissions. This means emissions from activities in Swedish territory are to be at least 85 % lower by 2045 compared to 1990 levels. Supplementary measures may count towards achieving zero net emissions, such as increased uptake of carbon dioxide in forests and land, and investments in other countries;
- emissions in Sweden outside of the EU ETS should, by 2030, be at least 63 % lower than emissions in 1990, and by 2040 at least 75 % lower. To achieve these targets by 2030 and 2040, no more than 8 and 2 percentage points, respectively, of the emissions reductions may be realised through supplementary measures; emissions from domestic transport are to be reduced by at least 70 % by 2030 compared to 2010. Domestic aviation is not included in the target since this subsector is included in the EU ETS.

## United Kingdom

The United Kingdom is advanced regarding the development of an integrated national energy and climate plan (NECP) for the years 2021–2030. The NECP is expected to include carbon plans covering the five carbon budgets already in place. External stakeholders have been involved in the work to develop a plan for reducing emissions throughout the 2020s.

The United Kingdom has committed to a long-term target to reduce greenhouse gas emissions by 80% of 1990 levels by 2050 within its Climate Change Act (2008). To meet these targets, the government has set five-year carbon budgets. They restrict the amount of greenhouse gases the UK can legally emit in a five-year period.

The UK government also established in 2011 the Carbon Plan, which sets out scenarios on how it will meet the first four carbon budgets. In October 2017, a Clean Growth Strategy was published, setting out a comprehensive set of policies that aim to accelerate the pace of "clean growth", i.e. deliver increased economic growth and decreased emissions, covering the period of the fourth and fifth carbon budgets.