

National system for policies and measures and projections of Portugal

Name and contact information for the entities with overall responsibility for the National System for policies and measures and projections

The Portuguese Environment Agency (APA) is the entity responsible for coordinating the National System of Policies and Measures and Projections (SPeM), ensuring its implementation in Portugal.

Following the approval of the National Energy and Climate Plan (NECP) for 2030 the existing National System is under revision to better integrate the energy dimension. It is expected that the General Directorate for Energy and Geology (DGEG) became co-coordinator of the SPeM, together with the Portuguese Environment Agency.

This revision is justified by the need to include the monitoring of policies and measures and of projections that impact the energy transition in the existing national system (SPeM), which will allow the assessment of progress in the implementation of sectorial policies and mitigation measures.

Contact details:

Name: Portuguese Environment Agency - Climate Change Department

Address: Rua da Murgueira, 9/9A, 2610-124 Amadora, Portugal

Telephone: +351 214 728 293

Contact Person: Eduardo Santos (Head of Climate Change Department)

Email Address: eduardo.santos@apambiente.pt

Institutional arrangements in place for preparation of reports on policies and measures and of projections as well as for reporting on them, including an organogram

The National System of Policies and Measures and Projections (SPeM) aims to enhance the involvement and strengthen the accountability of sectors in the integration of the climate dimension into sectoral policies, hereby contributing to the preparation of reports of policies and measures and projections.

In this sense, several focal points have been designated, for the different sectors:

- Agency for Competitiveness and Innovation;
- Directorate General for Energy and Geology;
- Directorate General of Territory;

- [?] Foundation for Science and Technology;
- [?] Institute for Housing and Urban Rehabilitation;
- [?] Institute for Nature Conservation and Forests;
- [?] Institute of Mobility and Transport;
- [?] Planning, Policy and General Administration Office;
- [?] Portuguese Environment Agency (that also coordinate);
- [?] Public Administration Shared Services Entity.

Legal arrangements in place for preparation of reports on policies and measures and of projections

The legal basis for the national system for policies and measures and projections [?] is provided by the Council of Ministers Resolution n.º 45/2016, of 26th August, which aims to foster the evaluation of progress in the implementation of sectoral policies and mitigation measures, enhancing the involvement and strengthening the accountability of sectors in the integration the climate dimension in sectorial policies, ensuring:

- Managing the process of identifying and designing policies and measures, or groups of policies and measures, to limit or reduce greenhouse gas emissions and other air pollutants by sources, or to intensify their removals by sinks, compliance with national obligations;
- Monitoring and reporting the implementation of policies and measures and their effects, as well as the reporting of projections in accordance with the requirements and the European and international guidelines, and ensure its agreement with the national inventory of anthropogenic emissions by sources and removal by sinks of atmospheric pollutants (INERPA);
- The preparation of national projections of greenhouse gas emissions and other air pollutants by sources and their removals by sinks, as well as the expected effects of the policies and measures being implemented and to be implemented, in accordance with the requirements and guidelines European and international, in conjunction with INERPA;
- Assessment of compliance of national obligations, including sectoral targets under the climate and energy package of the European Union and the air in the horizons policies in 2020, 2025 and 2030, as set out in the national strategic documents of climate change policies and air.

The Council of Ministers Resolution, which approves the national system includes the institutional, legal and procedural provisions applicable to the assessment of policies and the elaboration of projections of GHG emissions.

Procedural and administrative arrangements and timescales in place for the preparation of reports on policies and measures and of projections, to ensure the timeliness, transparency, accuracy, consistency, comparability and completeness of the information reported

The preparation of the Reports on policies and measures and projections are based on the results derived from the 2050 Carbon Neutrality Roadmap (RNC2050) and the 2030 National Energy and Climate Plan.

The methodologies and models used was already adopted in previous projections exercises, demonstrating that methodologies are well known, also the specific database, mainly for the energy sector, for Portugal is fed in regularly (TIMES_PT model).

For agriculture, forestry and other land use, waste and waste water and fluorinated gases, Excel spreadsheets based on inventory methodologies, are used so that all categories and different gases are covered, ensuring that the methodology used to estimate GHG emissions are those contained in the National Inventory Report.

In order to monitor and report on the impacts of cross-sectoral policies and measures on climate change and energy transition, a platform is under development, which will be developed together with the sectors by developing indicators and identifying their respective regulations, funding, taxes and others.

Description of the information collection process

The starting point for the development of greenhouse gas emission trajectories, was the development of coherent socioeconomic scenarios, based on common narratives of possible evolutions of the Portuguese society until 2050, based on the evolution of macroeconomic parameters and demographic trends. This work was performed under the preparation of the 2050 Carbon Neutrality Roadmap.

In this regard, data from the National Statistics Institute [?] were considered, namely: INE, 2012 - Census 2011 and 2017b - Employment Survey, Demographic Statistics 2016 and Resident Population Projections 2015- 2080.

The proposed scenarios were subject to an external consultation and validation process, in particular with entities with responsibilities in the field of economic forecasting in Portugal [?] as Portugal Central Bank, GPEARl – Finance Ministry Office of Planning, Strategy, Evaluation and International Relations; INE – Portuguese National Statistics Institute; GEE – Economy Ministry Office for Strategy and Studies; Foresight and Planning Department of the Environment Ministry, among others).

The narratives and their macroeconomic and demographic variables developed allowed, in the later modelling phase, to establish and characterize evolution scenarios for the different activity sectors - energy and industry, transport and mobility, agriculture, forests, and waste and wastewater, namely by the

estimation and characterization of demand for energy and services.

Several sectorial technical workshops and stakeholders meetings were performed to perceive the role of the circular economy in the future of the different sectors, as well as inform the modelling work on the evolution of some of the main assumptions and trends (the cycle included workshops on Mobility, Forestry, Agrifood, Construction, Cities, Energy, Waste and waste waters).

Broader thematic event cycles were also promoted around the decarbonisation of society that integrated public sessions focused on the themes of Mobility, on the role of Forests for the decarbonisation, Energy Transition, Fair Transition and Sustainable Financing.

The preliminary results of the Roadmap were publicly presented on December 2018 having started on that date the formal public consultation process that ended on February 2019.

In parallel, public sessions were also held to jointly present these results and draft National Energy and Climate Plan (the cycle included workshops on Mobility, Forestry, Agrifood, Construction, Cities, Energy, Waste and waste waters), in order to make known to the society these two key instruments of energy and climate policy, and to collect contributions and comments that could enrich these works. These sessions took place in a decentralized way across the country.

The different sectorial entities under the national system (SPeM) were also called to collaborate.

All these consultation processes led to useful information that allowed the revision of the scenarios and results of the projections and the revision of the policies and measures that are now part of the NECP2030.

Description of the alignment with the national inventory system

The SPeM ensures adequate articulation with the National System of Emissions Inventory by Sources and Removal by Sinks of Air Pollutants (SNIERPA).

To estimate GHG emissions the methodologies presented in the national emissions inventories are followed, which comply with the emissions calculation guidelines of the 2006 Intergovernmental Panel on Climate Change and relevant UNFCCC decisions for calculation of emissions and reporting emissions projections.

Description of the links to arrangements on integrated national energy and climate reports pursuant to Art. 17 of Regulation (EU) 2018/1999

The National System is under revision to better integrate the monitoring of policies and measures and projections that impact on the energy transition and will enable progress in the implementation of sectoral policies and mitigation measures to be assessed.

We will take advantage of existing monitoring structures at national level, adapting them to this new reality which is more integrating between energy and climate policies.

Description of the quality assurance and quality control activities for reporting of policies and measures and projections

The policies and measures and the projections QAQC available in the Reportnet 3.0 platform were used to check the completeness and coherence of the reports.

Description of the process for selecting assumptions, methodologies and models for making projections of anthropogenic greenhouse gas emissions

For the development of projections, a methodologically separate approach was adopted for each of the four main sectors, since there is no single model that makes it possible to project emissions for all sectors and gases in an integrated manner.

-**Energy system:** GHG emissions were estimated based on the TIMES_PT optimisation model which includes, in an integrated manner, the entire Portuguese energy system starting from energy generation, transport and distribution through to consumption in the end-use sectors such as industry **industrial processes** transport, residential, services and agriculture **energy use** in their multiple uses (heating, cooling, lighting, electrical equipment, passenger and freight mobility, among others).

-**Agriculture, forests and other land uses:** GHG emissions were estimated based on different assumptions aligned with the narratives of the socioeconomic scenarios, from which the respective evolutionary trends of the crop and animal sector, and their emissions, were established. This sector includes animal emissions and manure management systems, fertiliser use, rural fires, and the emissions or sequestration of different land uses.

-**Waste and wastewater:** GHG emissions were estimated based on projections of the volume of municipal waste and domestic wastewater generated each year, considering the resident population, and the impact of the policies already adopted. This sector includes emissions from the disposal and treatment of urban and industrial solid waste and wastewater.

-**Fluorinated gases:** GHG emissions were estimated based on the implications of implementation of the Kigali Agreement and the European Regulations that foresee the phasing out of some of these gases over coming decades. This sector includes emissions from the use of fluorinated gases in refrigeration and air conditioning equipment, fire protection systems and electrical switches.

Estimated GHG emissions for each sector were subsequently aggregated to calculate national total emissions.

Description of procedures for the official consideration and approval of the Member States national system for policies and measures and projections

The political commitment placed on the transition to a competitive, resilient, low-carbon and circular economy, in a context of full integration with the economic growth objectives, led to the creation in 2015, of the Interministerial Commission on Air, Climate Change and the Circular Economy, in the meanwhile renamed Commission for Climate Action.

The Commission is chaired by member of the Government responsible for the environment and climate action and is integrated by the government departments of energy, spatial planning, finance, agriculture, sea, economy and innovation, transport, health, tourism, civil protection, regional development, local administration, foreign affairs and cooperation, education and science and by representatives of the regional governments of Azores and Madeira.

The Commission for Climate Action, created through the Resolution of the Council of Ministers n.º 56/2015, of 30th July, provides policy guidance on climate change and air. It is also responsible for promoting the articulation and integration of climate change policies, sectorial policies and monitor the implementation of relevant sectorial measures, programs and relevant sectorial measures, programs and actions that may be adopted, especially through the national system for policies and measures and projections (SPeM).

Information on relevant institutional administrative and procedural arrangements for domestic implementation of the EU's nationally determined contribution, or changes to such arrangements

In 2010, the EU submitted a pledge to reduce its GHG emissions by 2020 by 20% compared to 1990 levels. Portugal as an EU Member State is a part of the EU 2020 emission reduction target. The implementation of this target is ensured by EU legislation adopted under the “2020 climate and energy package” [REDACTED]. The package introduced a clear approach to achieving the EU's 20 % reduction of total GHG emissions from 1990 levels, which is equivalent to a 14 % reduction compared to 2005 levels. This 14% reduction objective is divided between the Emission Trading System [REDACTED] and Effort Sharing Decision (ESD) sectors.

While the EU ETS target is to be achieved by the EU as a whole, the ESD target was divided into national targets to be achieved individually by each Member State. Under the ESD, national emission targets for 2020 are set, expressed as percentage changes from 2005 levels. For Portugal this means a +1% target compared to 2005 levels, for 2020.

Furthermore, a 2030 target has been pledged by the EU through its Nationally Determined Contribution submitted under the Paris Agreement, and has been adopted by the EU under the 2030 Climate and Energy Framework (EU 2030). The emission reduction target is a pledge to reduce emissions by at least 40% (EU 2030) to 1990 levels by 2030 (EU 2030) revised to be at least 55% (EU 2030). Similarly to the 2020 under the new Effort Sharing Regulation (EU 2030), national emission targets for 2030 are set, expressed as percentage changes from 2005 levels. For Portugal this means a -17% target compared to 2005 levels.

In order to achieve these targets, Portugal has maintained the main national climate policy instruments in terms of mitigation and adaptation, and approved two new main instruments, the 2050 Carbon Neutrality Roadmap and the 2030 National Energy and Climate Plan, respectively through the Council of Ministers Resolution n.º 107/2019 of 1st of July and the Council of Ministers Resolution n.º 53/2020, of 10th of July. The National System of Policies and Measures (NSPM), regulated by the Council of Ministers Resolution n.º 45/2016, of August 26th was maintained.

Description of the stakeholder engagement undertaken in relation to the preparation of policies and measures and projections

The policies and measures and projections were prepared during the elaboration of the National Energy and Climate Plan (NECP) 2030 and of the 2050 Carbon Neutrality Roadmap (2050) which constitutes the Portuguese Long-Term low GHG emissions development Strategy submitted to the UNFCCC and to the European Commission.

The process of developing these energy and climate policy instruments for the next decade and for a carbon neutral future, was supported by a broad process of sectoral involvement and mobilization of the Portuguese society. This involvement occurred during the different stages of the process, from the construction of macroeconomic scenarios that served as a basis for the entire foresight and modelling exercise, allowing the collection of contributions from various institutions and national experts, and which gave rise to the three scenarios considered: working sessions dedicated to specific themes with the presence of experts from the most diverse areas, in the search for solutions to meet national goals and objectives; cycles of technical workshops and thematic events around the decarbonisation of society.

Following the above mentioned initiatives, a public consultation was carried out for both instruments, which had a high participation of the public sector, private sector, associations representing sectors of the economy and civil society and which contributions were in their majority incorporated in the respective final versions (both on policies and measures and projections).