

# Climate Recon 2050: Dialogues on Pathways and Policy

**Bulgaria**

Detelina Petrova, MoEW

## **Impulse for the development of the national strategy**

- Search, identify and implement the efficiently enough actions that support development, which leads less emissions;
- Establish a policy framework in which policies from different sectors are streamline in one direction.

## **National strategy: *status quo***

- Current LCDS is based on the assumptions and policies planned and implemented until 2020;
- Lack of the national strategies across other relevant sectors of the economy (except Transport sector) until 2030/2050.

## **National strategy: key highlight**

- Identify the concrete targets and relevant actions in order to be achieved by policies and regulations to support low-carbon development;
- Increase awareness on climate change with stakeholders;
- establish a favourable investment actions to low-carbon development.

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**Czech Republic**

Pavel Zámyslický, Ministry of the Environment

## Impulse for the development of the national strategy

- Previous climate strategy from 2004 outdated
- Climate Protection Policy of the Czech Republic in preparation since 2008
- Later decision to redraft as Low carbon development strategy in line with UNFCCC requirements and Regulation 525/2013
- Implementation of CEP and EU 2030 framework

## Climate Protection Policy: *status quo*

- Adopted by the Government: 22. 3. 2017
- Summary submitted to UNFCCC: 15. 1. 2018
- Evaluation planned by 31. 12. 2021 and first update by 31. 12. 2023
- Key input for the National Energy and Climate Plan

## National strategy: key highlight

- Primary emission reduction targets against 2005:
  - 20% by 2020 (32 Mt CO<sub>2</sub>eq)
  - 30% by 2030 (44 Mt CO<sub>2</sub>eq)
- Indicative long term targets:
  - indicative level of 70 Mt CO<sub>2</sub>eq in 2040
  - indicative level of 39 Mt CO<sub>2</sub>eq in 2050 (80% reduction against 1990)
- 42 specific measures for all sectors
- For 2030 more detailed modelling based on projection from March 2015
- Adapted UK 2050 Pathways Calculator for 2050 scenarios
- Also chapters on climate finance, R&D, education, reporting
- Executive Summary available at:  
[http://unfccc.int/files/na/application/pdf/cze\\_climate\\_protection\\_policy\\_summary.pdf](http://unfccc.int/files/na/application/pdf/cze_climate_protection_policy_summary.pdf)

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**Estonia**

Helena Täär, Ministry of the Environment

## Impulse for the development of the national strategy

- In July 2009, the leaders of the European Union and the G8 announced an objective to reduce greenhouse gas emissions by at least 80% below 1990 levels by 2050. In October 2009 the European Council set the appropriate abatement objective for Europe and other developed economies at 80-95% below 1990 levels by 2050.
- Government of the Republic of Estonia decided in August 2014 to initiate the compilation of the General Principles of Climate Policy until 2050.

## National strategy: *status quo*

- The Parliament of Estonia adopted Estonian low carbon strategy, officially named “General Principles of Climate Policy until 2050” on April 2017.
- The strategy sets a roadmap for Estonia to move towards a competitive low carbon economy and to reduce greenhouse gas emissions in the sectors of energy, transportation, industry, agriculture, forestry and waste management at least by 80% by 2050, compared to 1990 levels.

## National strategy: key highlight

- The strategy includes: The vision and national target of climate policy; Political guidelines for the economy as a whole; Sectoral policy guidelines for the mitigation of climate change and adapting to the effects of climate change. Principles and guidelines in the strategy has to be taken into account when renewing and implementing the cross-sectoral and sectoral strategies and national development plans.
- It was a large-scale involvement process. There were more than 80 interest groups included to the all stages of the preparation, starting with setting up a problem and defining goals.
- There were 5 sectoral engagement groups: Energy and Industry, Transport, Agriculture, Forestry and Waste management. They met 25 times during this time and exchanged thoughts also electronically.
- In addition, the impacts of the implementation of the policy guidelines were assessed: impacts on reducing emissions of greenhouse gases and ambient air pollutants; socio-economic impacts; effects on energy security. Impact assessments were also discussed with the public and with the sectoral engagement groups.

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**France**

**Gwenaël Podesta, Ministry for an Ecological  
and Solidary Transition**

## **Impulse for the development of the national strategy**

- National Debate on Energy Transition (2012-2013)
- Energy Transition for Green Growth Act (2015)
- COP 21

## **National strategy: *status quo***

- Monitoring indicators are now established
- First progress report published in January 2018
- Ongoing revision of the strategy, will be published in early 2019
  - Enhanced ambition : carbon neutrality in 2050
  - Enhanced stakeholders involvement

## **National strategy: key highlight**

- **Modelling work** is complex, but proved to be useful to bridge the « reality gap » and inform policy making (e.g. building retrofits)
  - **Stakeholders involvement:**
    - Inter-ministerial strategy
    - Sectoral consultations provided useful inputs to the modeling work
    - Ensures a large buy-in of the strategy
  - **Monitoring**, taking additional measures if and where needed
  - **Impact assessment**, in terms of:
    - Growth
    - Job creation
    - Inequality
- Just transition

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**Germany**

Martin Weiss

Federal Ministry for the Environment (BMU)

## Impulse for the development of the national strategy

- Existing medium and long-term climate targets needed to be underpinned by a detailed strategy with clear orientation for future investments.
- Energy concept as of 2010 not comprehensive (i.e. with regard to non-energy emissions).
- Need for a fresh look at long-term pathways in the light of the Paris Agreement.

## National strategy: *status quo*

- Strategy was agreed in November 2016. Since then ongoing implementation of strategic measures.
- Main focus is programme of measures for achieving 2030 sectoral targets, to be elaborated during 2018, building on proposals for measures by responsible ministries.

## National strategy: key highlights

- Long-term goal of extensive ghg-neutrality by the middle of the century. Long-term vision set out for each sector (2050). Near zero energy-related emissions, remaining emissions mainly in agriculture and industrial processes.
- Mid-term target for 2030 of at least 55% reduction of emissions below 1990. Sectoral targets specified for 2030 in order to define responsibilities and to facilitate elaboration of necessary measures.
- Extensive dialogue and participation process took place from 2015 on, mainly to inform the elaboration of strategic measures contained in the climate action plan. Valuable lessons learned for continued participation and dialogue process.

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**Hungary**

József Lezsák, Ministry of National  
Development

## Impulse for the development of the national strategy

- First National Climate Change Strategy (NCCS) adopted in 2008
- Shall be reviewed every 5 year
- NCCS2 adopted by the Government in May 2015
- Introduced to the Parliament in June 2015
- Rewritten after the Paris Agreement

## National strategy: *status quo*

- Adopted by the Government
- Introduced to the Parliament in May 2017
- Not yet debated

## National strategy: key highlight

- Timeline: 2017-2030 with an outlook to 2050
- Includes an assessment of the expected social, economic, impacts of climate change in Hungary
- Includes a decarbonisation roadmap and an adaptation strategy
- 52-85% potential reduction in GHG emissions by 2050 from 1990
- A Climate Change Action Plan shall be prepared 6 months after the approval of the Climate Change Strategy and every 3 years

# Climate Recon 2050: Dialogues on Pathways and Policy

Italy

Giovanni Perrella,

Ministry of economic development – Dip. Energy

## Impulse for the development of the Italian national strategy

- The NECP will be presented to the EU in 2019 and should indicate the measures that Italy intends to take to achieve the objective consistent with the EU Nationally Determined Contribution for 2030 of to cut GHG by 40% compared to 1990.
- The European Council invited on March 22, 2018 the Commission to present by the first quarter of 2019 a proposal for a Strategy for long-term EU greenhouse gas emissions reduction in accordance with the Paris Agreement, taking into account the national plans.
- Updates in 2030 and 2040 are essential to consider the contribution of technological development.
- The measures will concern mainly energy efficiency, renewables, emissions, sustainable mobility, circular economy.

## National strategy: *status quo*

- The National Energy Strategy (approved in Nov 2017)
- The National Sustainable Development Strategy (approved in Dec 2017)
- The National Circular Economy Strategy (will be approved in 2018)
- The Long Term Decarbonisation Strategy for 2050 (a document of G7-Env following the Paris Agreement (not yet started))

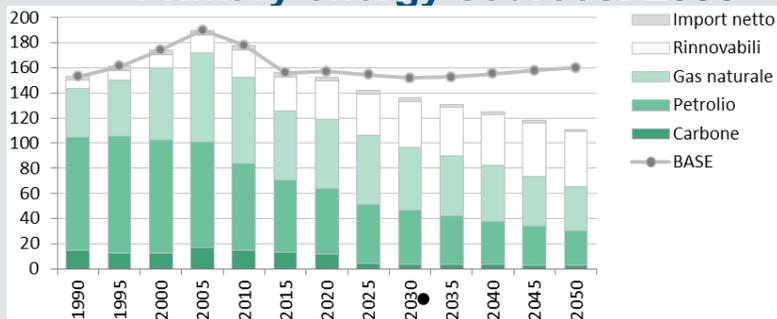
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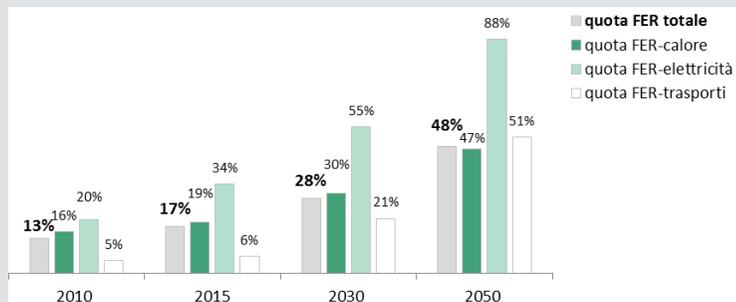
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Ministry of economic development – Dip. Energy

## Primary energy sources: 2050



## Share of Renewable contribution by use at 2050



## National strategy: key highlight Based on 2050 projections of results to 2030

- **1.** Gradual replacement of fossil sources with renewable sources, and in 2050, RES would cover almost half of the primary energy consumption
- **2.** In the electricity sector, renewables would become far more prevalent, with coverage of gross final consumption of over 85%. The penetration of renewables in the thermal and transport sectors (around 50%) would also be relevant
- **3.** Strong development of electrical production by RES (370 TWh), mainly intermittent RES, such as wind and photovoltaics, which reaches a 93% share of national electricity production. The remaining share of national production is instead covered by natural gas

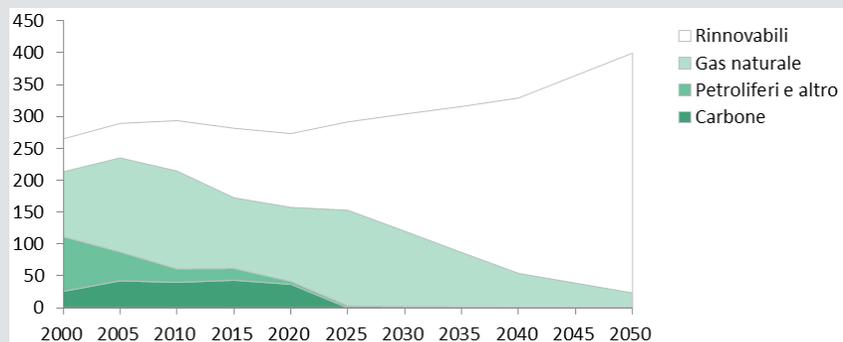
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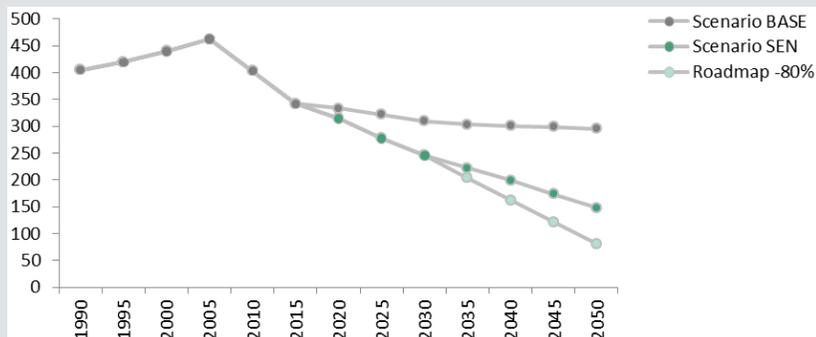
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## Electricity production by sources (TWh)



## CO<sub>2</sub> Emission of energy sector at 2050 (Mt)



## National strategy: following key highlight

- **4.** drastically reduce CO<sub>2</sub> emissions in the energy sector compared to a reference evolution to 2050, in line with the deep decarbonisation objectives of the EU 2050 Roadmap.
- **5.** development of distributed generation, driven by the reduction of the costs of generation technologies and widespread storage;
- **6.** storage may have an important driving force also from the evolution of the automotive sector, the role of Power to X could be important;
- **7.** the global electric car market, which is currently taking off, is expected to experience a strong expansion, driven by cost reduction and environmental requirements; the role for Hydrogen and biomethane/natural gas (not only LNG) in transport could be relevant.
- **8.** the opportunities offered by the new home automation and smart metering technologies foreshadow greater efficiency in the residential and tertiary sectors, which together absorb more than half of the estimated electricity consumption by 2030.

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## The Netherlands

Paul van Dam, Ministry of Economic Affairs  
and Climate Policy

### Impulse for the development of the national strategy

- The Paris Agreement requires transition to low-carbon economy in 2050
- Major societal challenge, but also many new opportunities if a pro-active approach is taken
- This requires a clear, long-term perspective offering certainty for businesses, investors and the general public.

### National strategy: *status quo*

- Energy Agenda (2016) describes pathways to reach a low-carbon energy supply by 2050.
- Focus of the new government on reaching a “Climate Agreement” in 2018 with a broad range of stakeholders, aiming for a cost-effective reduction of GHG emissions of 49% by 2030.
- Climate Act under discussion with targets for 2030 and 2050

### National strategy: key highlight

- A gradual energy transition is considered to be advantageous in terms of providing economic opportunities. This requires additional efforts in the short term to avoid high costs and/or stranded assets later on.
- Dutch Coalition Agreement therefore focuses on making headway towards 2030 in a cost-effective manner (e.g. phasing out coal-fired electricity generation, large-scale roll-out of offshore wind energy, minimum CO2 price for electricity generation, phasing out the use of natural gas for heating in the built environment) while keeping in mind the long-term perspective.
- More ambitious EU climate policy needed (for both 2030 and 2050) to drive the transition and to make sure additional efforts result in climate benefits in all sectors.