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Developing the EU Long-Term Climate Strategy

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1. EU needs a new long-term climate strategy

2. Many choices, that all have political implications

3. Different audiences and political processes require different, but consistent, strategic guidance

4. A coordinated sequence of three strategy documents (broad Vision + concise UNFCCC submission + detailed Roadmap)

5. Key considerations:
   - Adequate Ambition
   - Transparency and stakeholder involvement
   - Urgency
   - Combine market and regulatory approaches
1. The Project

- Bruegel and ICTSD/ERCST
- Funding from Denmark, France, Germany and Sweden, Climate-KIC, EdF, ENEL, the European Climate Foundation, and Shell
- 5 stakeholder workshops in MS capitals + 2 in Brussels
- 100 p technical report + 10 p Policy Paper
2. EU needs a long-term climate strategy (1)

- Paris Agreement (1.5 - 2 °C)
- New EU carbon commitments

<table>
<thead>
<tr>
<th></th>
<th>Coverage</th>
<th>Reduction of all covered countries</th>
<th>EU reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kyoto</td>
<td>18% of global emissions</td>
<td>4-5% from 1990 to 2012</td>
<td>2012: 8%</td>
</tr>
<tr>
<td>Doha</td>
<td>11% of global emissions</td>
<td>18% from 1990 to 2020</td>
<td>2020: 20%</td>
</tr>
<tr>
<td>Paris</td>
<td>100% of global emissions</td>
<td>carbon neutrality at some point after 2050</td>
<td>2030: 40%*</td>
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<td></td>
<td></td>
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<td>2050: tbd</td>
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- Science of climate change evolved (IPCC, UNEP Gap)
2. EU needs a long-term climate strategy (2)

Coordination with UNFCCC and Energy Union:

By 2020: Long-term low greenhouse gas emission development strategies (mid-century)

2018
IPCC special report on 1.5 degree global warming

2020 objectives
2023: 1st Global Stocktake (GS)
2028: 2nd GS
2033: 3rd GS
2038: 4th GS
...

By 2020/2019
NECPs for 2020 – 2030
To be renewed every 10 years

By Q1 2019: Strategy for long-term EU greenhouse gas emissions reduction in accordance with the Paris Agreement (will supersede the 2050 Roadmap)

By 2020: Member States’ long-term low emissions strategies (with a 50 years perspective)
2. EU needs a long-term climate strategy (3)

Figure 2. Change in expectations 2011 vs. 2016/17

Reference Scenario for 2020

<table>
<thead>
<tr>
<th>Metric</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP (in Million 2005)</td>
<td>-8%</td>
</tr>
<tr>
<td>CO2 emissions, energy related (Mt)</td>
<td>-7%</td>
</tr>
<tr>
<td>Discount rates, private individuals (difference in pp)</td>
<td>-4.50%</td>
</tr>
<tr>
<td>Wind (net generation capacity in GW)</td>
<td>-10%</td>
</tr>
<tr>
<td>Solar (net generation capacity in GW)</td>
<td>155%</td>
</tr>
<tr>
<td>CCS (net generation capacity in GW)</td>
<td>-81%</td>
</tr>
<tr>
<td>Battery costs in EUR/kWh</td>
<td>-75%</td>
</tr>
</tbody>
</table>
3. Structure of the Technical Paper (1)

1. Introduction
   1.1 Background to the EU 2050 Roadmap
   1.2 Impact of the EU 2050 Roadmap
   1.3 Need for a new EU long-term climate strategy
   1.4 Assumptions for EU 2050 Roadmap have changed
   1.5 About the project

2. Purpose, need and audience
   2.1 What needs does the LTCS aim to fulfil?

3. Type of document
   3.1 What is the political ownership of the LTCS?
   3.2 Role of the LTCS in the overall climate and energy architecture
   3.3 Type of document
   3.4 Role of the LTCS in the public debate on long-term climate action
3. Structure of the Technical Paper (2)

4. Scope of document
   4.1 Scope of modelling
   4.2 Attribution of emissions: at sources vs. embedded
   4.3 Climate change as the driver for decarbonisation
   4.4 General focus of the LTCS
   4.5 General focus of the LTCS: transition
   4.6 Sectoral focus of the LTCS

5. Technical decisions
   5.1 Is technology neutrality an appropriate assumption for the LTCS?
   5.8 Granularity of the analysis
   ...

6. Process
   6.1 How should the consultation process be organised?
   6.3 Model choice process
   ...
4.1 Example: Type of document

Option 1. One-off document
Document that is published once, not reviewed and intended to focus on current issues

Option 2. Regularly reviewed and updated document
Regularly updated document that takes into account new information.
Could follow the 5-year review cycle of the Paris Agreement, or be linked to the EU Energy Union governance process.

Option 3. Constantly updated content in a fixed structure
Living document in which individual pieces of new information are added when they become available.
4.2 Example: Geographic granularity

Option 1: Decarbonisation pathways only for EU as a whole
One aggregate pathway for the entire region, to avoid inconsistencies between modelling results and national realities/plans/constraints.

Option 2: Decarbonisation pathways for individual member states
National pathways to inform national debate on what different EU decarbonisation will require. Provides a benchmark for the consistency of national strategies with the overall EU decarbonisation pathway (->Energy Union governance process)
5. Different audiences and political processes require different, but consistent, strategic guidance.

Purposes:

(i) guide the EU and its Member states energy and climate policies in line with the goals of the Paris Agreement,

(ii) deliver a long-term low greenhouse gas emission development strategy to the UNFCCC,

(iii) ensure synchronization with the governance of the Energy Union process,

(iv) inform the business community in its investment decisions,

(v) provide a vehicle for engaging EU citizens and stakeholders in decisions over the decarbonisation of society.
6. A Coordinated sequence of three strategy documents

We suggest the following sequence to meet all purposes in time in a coherent way:

1) Broad long-term Vision
2) Concise UNFCCC submission
3) Detailed Roadmap
7. Key considerations

- Transparency and Participation
  - Decarbonisation needs to involve a wide array of stakeholders, already early in the process
  - European Commission needs to go significantly beyond its past exercises
  - Modelling exercises should be opened up

- Ambition, as defined by the Paris Agreement

- Urgency, underpinned by science and IPCC

- LTCS should allow, both, market and non market approaches where appropriate (flexibility and efficiency / market failures)
Key messages

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