Towards an EU strategy for climate neutrality by 2050

Peter VAJDA, Senior Environmental Expert, Energy Community Secretariat
Agenda

1. The root cause
2. How to deal with impacts? Environmental law and its relation to the energy sector
3. The EU’s approach
4. Activities of the Energy Community in the field of environment and climate
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Environmental impacts and the oil sector

- *Emission related to the*
  - mining
  - transport
  - conversion / transmission / *use* of energy (upstream / downstream)

- *Emissions into*
  - air
  - water
  - soil (*waste*)

- *Climate change* (*greenhouse gas emissions*)
Increase in greenhouse gas concentration

Monthly mean CO₂ concentration
Mauna Loa 1958 - 2016

Seasonal variation

CO₂ fraction in dry air (ppm mol⁻¹)
Departure from yearly average

Source: NOAA
## Greenhouse gases

<table>
<thead>
<tr>
<th>Gas</th>
<th>Tropospheric concentration (1000-1750)</th>
<th>Tropospheric concentration (recent)</th>
<th>Atmospheric lifetime (years)</th>
<th>100 year global warming potential (GWP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon-dioxide</td>
<td>280 ppm</td>
<td>400 ppm</td>
<td>50-200</td>
<td>1</td>
</tr>
<tr>
<td>Methane</td>
<td>0.7 ppm</td>
<td>1.875 ppm</td>
<td>12</td>
<td>25</td>
</tr>
<tr>
<td>Nitrous oxide</td>
<td>0.270 ppm</td>
<td>0.321 ppm</td>
<td>114</td>
<td>296</td>
</tr>
<tr>
<td>Perfluoromethane</td>
<td>40 ppt</td>
<td>80 ppt</td>
<td>&gt;50 000</td>
<td>5700</td>
</tr>
<tr>
<td>Sulfur-hexafluoride</td>
<td>0</td>
<td>4.2 ppt</td>
<td>3200</td>
<td>24 000</td>
</tr>
</tbody>
</table>

Source: IPCC
Effects of climate change

- More extreme weather events (floods/draughts, thunderstorms, etc.)
- More constraint on the energy sector
- Freshwater use
- Feedback loops (e.g. permafrost methane, deep sea methane)
- To avoid the most severe negative effects → the imperative of the energy transition
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Ex ante and ex post approaches

- **Ex ante:** environmental impact assessment / strategic environmental assessment

- **Ex post:** measures for the limitation of emissions (mitigation) or to cope with the results (adaptation)

- **Mitigation measures:** can be regulatory (“command and control”) or market-based

- **Adaptation:** e.g. flood protection, agriculture (irrigation), etc.
The carbon price

EU carbon prices fell on oversupply

Energy Community Secretariat

11th Oil Forum, Belgrade, 8 October 2019
Fixing the problem

EUA Price

From Apr 7, 2008 To Aug 19, 2019

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Green Deal (the political level)

- Ursula von der Leyen’s Political Guidelines (A Union that strives for more) → first of the six headline ambitions

- Major commitment → present European Green Deal in first 100 days of office (by February 2020)

- “This will include the first European Climate Law to enshrine the 2050 climate-neutrality target into law.”

- Extension of the ETS in transport → maritime traffic + reduction of free allowances in air traffic

- Carbon border tax (carbon leakage) → direct consequences for EnC

- Just transition → social / employment dimension

- Financial planning → role of EIB

- Timmermans’ hearing yesterday at the ENVI Committee
Is this new? Well…

- COM Communication Nov 2018: “A Clean Planet for all - A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy”

- Full decarbonisation of energy supply
- Transport → EVs and automated systems
- Financial instruments
- Energy efficiency (approx. 50% reduction by 2050)
- Circular economy w/ industrial modernization
- Carbon sinks + CCS
Where there is a will (and finance), there is a way

- Next level → turn political ambitions / strategies into action (and legislation)
- Proposals (and fierce debates) to be expected soon
- Compensation forms in the just transition process → crucial
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The environmental and climate dimension

Environment
- **EIA** Directive – after entry into force
- **SEA** Directive – as of 1 March 2018
- **Sulphur in Fuels** Directive – as of 1 January 2012
- **LCP** Directive (2001/80/EC) – as of 1 January 2018
- Art. 4(2) of the **Wild Birds** Directive (79/409/EEC) – after entry into force
- Endeavour to accede/implement: **Kyoto Protocol; IPPC Directive** (96/61/EC)
- **Chapter III and Annex V of IED** (2010/75/EU) – as of 1 January 2018 for new plants (2013 decision), as of 1 January 2028 for existing plants (2015 decision)

Climate
- **Monitoring Mechanism Regulation**
- **National Energy and Climate Plans**
Several **recommendations** regarding new acquis (SEA, ELD, FQD, IED Ch. II and IV, AQD, ETS)

- Integrated energy and climate planning – the cornerstone of the energy transition

- **Policy Guidelines of the Secretariat on the development of National Energy and Climate Plans** (June 2018)

- NECPs cover the period from **2021 to 2030**, including a **perspective until 2050** → consistency with long-term relevant policy objectives at EU, UNFCCC and Energy Community level

- Current situation: macroeconomic context, greenhouse gas emissions, energy mix, situation in each subsector of the energy system

- Coal regions in transition
Thank you for your attention!

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