The role of renewable energy in the European chemical industry

The European chemical industry is asking what ideas the Commission is developing to ensure sufficient renewables to decarbonise the chemical industry, specifically:

- *How to ensure the **massive amounts of renewable electricity** needed for electrification and the production of hydrogen?*
- *How to address the existing **regulatory hurdles** to kick-start industrial electrification and greening chemistry (EEAG and ETS Indirect Compensation code for Hydrogen vs non-compensation Basic Organic)?*
- *How to start a **structured dialogue** with Commission services?*

Main messages

- The European Commission already has a target in place to increase the overall renewable energy share from 20% today, to at least 32% by 2030. In the electricity sector, this means a **doubling of the renewables mix from around 30% today to more than 60% by 2030.**
  - In absolute terms, the increase in renewables expected over the next 10 years is the equivalent of **80% of the current energy consumption in the chemical sector.**
- The target of 55% greenhouse gas emission reductions for 2030 is expected to increase the share of renewables to 38-40% by 2030. **The energy system integration strategy**, the **hydrogen strategy**, and the **offshore renewable energy strategy** are providing measures to accelerate the deployment of renewables
  - **Regulatory hurdles** on permitting and administrative issues for renewables are already being addressed by the **clean energy Package** (to be implemented by June 2021), and will be further examined by the **revision of the renewable energy directive** (June 2021).
  - **Increased production of renewables** is pursued under the offshore energy strategy, and the upcoming revision of the renewable energy directive (June 2021)
  - The increased use of **waste heat and agricultural waste, including through bio-based products** is addressed in the energy system integration strategy, and the revision of the renewable energy directive (June 2021).
  - The energy system integration strategy is explicitly examining measures to **facilitate electrification** of end-use sectors, including through new provisions to support the necessary infrastructure.
  - **Financial support for the scale up of renewable hydrogen production** in the hydrogen strategy, and implemented through the different financial instruments under the new multiannual financial framework (EU 7-year budget).
  - **Upscaling of renewables and renewables hydrogen** production is supported under the '**Power Up'** flagship of NextGenerationEU (the EU recovery package).
- The Commission foresees that efforts to increase renewables supply have to go hand-in-hand with increased **measures for energy efficiency** *(according to CEFIC's own decarbonisation roadmap, the largest contribution will be energy efficiency measures – see background):*
  - The Climate Target Plan foresees that the existing target of at least 32.5% energy efficiency **is increased to around 36%** in terms of final energy consumption.
  - Several measures to support the **circular economy** are being put in place to ensure both increased use of energy efficiency as well as material resources.

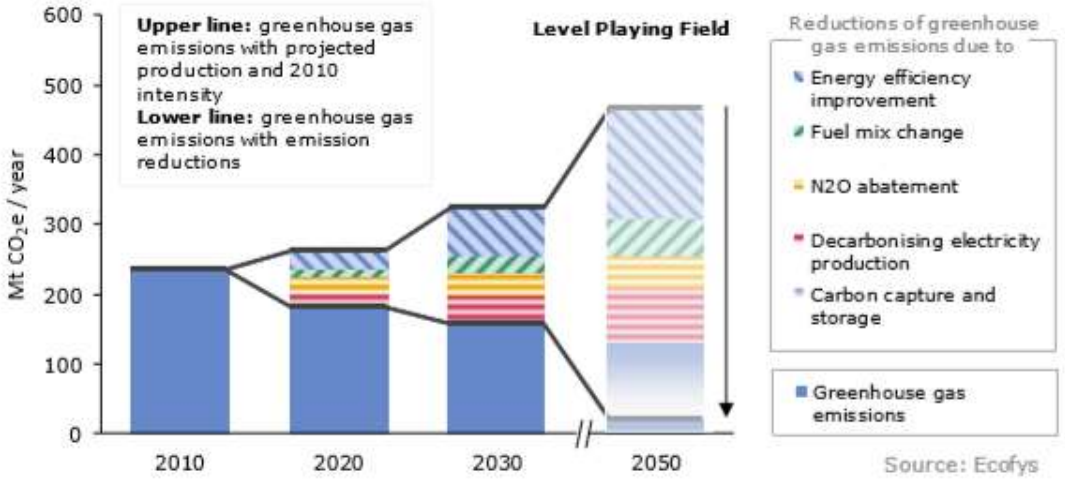
  - To safeguard competitiveness, the Commission will also propose **a carbon border adjustment mechanism**, for selected sectors, to reduce the risk of carbon leakage as an alternative to measures currently in place to address that same risk.

- Based on the strategies published in 2020, the Commission is currently preparing a **'Fit for 55%' package** of legislative proposals

  - Stakeholder engagement has already begun on the revision of the renewable energy Directive, the energy efficiency Directive, and the EU emissions trading scheme.

Background

- The chemical industry accounts for 20% of industrial energy demand, and is as such the largest industrial energy consumer.
- 34% of their consumption is natural gas, 30% is electricity, 16% is oil products, and only 1% is direct use of renewables
- According to CEFIC's own decarbonisation roadmap, the largest contribution will be energy efficiency measures (see below), followed by the decarbonisation of the electricity mix.



Source: CEFIC (2019) European chemistry for growth

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