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EXPERTISE

Comparative study on the role of the European Energy Network agencies in the implementation of industry decarbonisation public policies

Presentation at the EnR Full Meeting
February 16th 2022

E-CUBE STRATEGY CONSULTANTS

Agenda

This study pursues three key objectives, related to establishing a synthesis of the status of industry decarbonisation in Europe, and highlighting the role of the EnR network in fostering this dynamic

1

Drawing up a synthesis of the current dynamics, solutions and obstacles in the field of industrial decarbonisation in Europe

Identifying key instruments and flagship projects put in place by EnR agencies in terms of supporting and implementing public policies in this field

2

Encouraging feedback and the sharing of good practices between the EnR agencies in the field of industrial decarbonisation;

3

Highlighting the role, the expertise and the resources of the EnR Network in supporting the various European players to achieve the objectives of the EU's industrial strategy.

This study has been conducted with an active participation of 14 agencies from the EnR Network

Agencies with programmes specifically targeted at industry decarbonisation

- ADEME (France)
- ENEA (Italy)
- MOTIVA (Finland)
- SwissEnergy (Switzerland)
- DENA (Germany)
- AEA (Austria)
- EWA (Malta)
- ADENE (Potugal)
- RVO (Netherlands)
- SEA (Sweden)
- SEDA (Bulgaria)
- IDAE (Spain)

Agencies which mandate do not include industry decarbonisation or do not have instruments specifically targeted at industry decarbonisation

- EST (UK)
- CRES (Greece)

EST having no activities in the field of industry decarbonisation, EST answers presented in the following pages pertain to the activities of Carbon Trust, which manages industry decarbonisation programmes on behalf of the UK government

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Key messages

1. **At the EU perimeter, Member States are committed to act in the field of industry decarbonisation, with quantified targets for 2030 set in their NECPs**[1)]

2. **Emissions have slowly decreased over the past decade** (-12% between 2010 and 2019[2)]), **but additional efforts and investments are needed**: from €9Bn/year of public and private investment in the past decade, the annual amount should reach €20Bn/year in order to achieve the -55% emission reduction target[3)].

3. **Recovery plans after the 2020 sanitary crisis have highlighted the critical importance of industry decarbonisation in meeting overall EU targets, and played a role of accelerator** with:
   - **i. The revision and development of industry decarbonisation plans in several countries** (France, Germany, Malta, the Netherlands, Portugal, UK and Spain among others);
   - **ii. A strong acceleration of H2 development objectives**, with most states with large industrial energy consumption publishing national H2 strategies (France, Spain, Portugal, the Netherlands, Italy, Germany, Poland) along with the EU itself.
   - iii. The opening of new European funds to support States' strategies: **~€38Bn within the NextGeneration EU budget are directly or indirectly[4)] related to industry decarbonisation.**

1) National Energy and Climate Plans, submitted to the EU. 2) At the perimeter of the EnR Network countries excl. Turkey and Russia. 3) European Commission *"An EU-wide assessment of National Energy and Climate Plans"*, 17.9.2020. 4) Including funds dedicated to H2 and CCS, R&D & Innovation, renewables' development as well as various types of cross-sectoral decarbonisation measures

Agenda

0	Introduction
1	Dynamics of industry decarbonisation in EnR network countries
2	**Key stakes, obstacles and drivers to industry decarbonisation among EnR network countries**
3	Role of EnR Network Agencies in the field of industry decarbonisation

Key messages (1/2)

1 **Four categories of obstacles currently limit the industry decarbonisation dynamic, among which the economic challenge remains the biggest one:**

i. **Economic[1]: the additional cost** of decarbonised solutions compared to carbonised ones, as well as the **CAPEX intensity** of those alternatives.

ii. **Technical and/or technological[2]:** the **availability** of decarbonised alternatives, for both **technological reasons** or for **technical availability issues**.

iii. **Organisational and competency issue[3]**: lack of competencies and of access to technical knowledge, limited overall on the market or non-accessible for some companies by lack of organisation, financial or human resources.

iv. **Behavioural obstacles[4]:** “routines” and low awareness of the criticality of the decarbonisation stakes.

2 **The weight of those obstacles is relatively homogeneous** among the network countries, but **influencing factors can generate gaps** between countries or between industrial sectors:

- **Types and weight of industrial sectors;**
- **Organisation of the industrial landscape;**
- **Size of industrial companies.**

1) 12 Energy Agencies among the 14 that answered the questionnaire mention “economics” as a major obstacle to achieve industry decarbonisation. 2) 8 agencies out of 14. 3) 8 agencies out of 14. 4) 9 agencies out of 14.

Key messages (2/2)

3 **Several categories of levers exist to overcome obstacles, in the design and implementation of which States and the EU play a key role**:

i. **Economic incentive schemes – penalties** (ETS market, States' carbon taxation systems) or **subsidies, tax reliefs** or other mechanisms such as **white certificates**.

ii. **Research & Development programmes**.

iii. **Programmes designed to raise the level of external pressure coming from companies' shareholders and investors** (e.g. Green Taxonomy initiative), **customers and the civil society in general** (e.g. awareness campaigns).

iv. **Support to the development of skills and certified offers of services on the decarbonisation value chain** (energy audit programmes, GHG footprint assessment campaigns etc.)

v. **Regulatory and institutional measures** (e.g. air pollution regulations, thermal regulations for building renovation)

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Key messages

1 **The national Energy Agencies that compose the EnR Network generally act as the operational "armed wing" of States in the implementation of industry decarbonisation levers**. 85% of Agencies participating to the study currently run instruments:

- Directly targeting the major industry decarbonisation stakes (energy efficiency and switches from fossil fuels to renewable / less carbonated energies, electrification and industrial process switches, circular economy initiatives, development of CCUS technologies etc.)
- … Leveraging the major levers identified: **subsidies, R&D programmes, training programmes, industry decarbonisation databases, and communication campaigns**, as well as **prospective studies** and **certification programmes**;

2 As the collaboration platform between National Agencies of >20 countries facing similar issues, the **EnR network is a powerful tool at the service of European bodies and States** to tackle the industry decarbonisation challenge, as:

1. A **"knowledge sharing platform"** for information, good practices and experiences;
2. A **channel to structure and enhance the production of new knowledge**, databases and methodologies with a transnational view when relevant;
3. A body that contributes to **foster international collaboration** (EU and beyond);
4. A channel through which the **European bodies can access useful expertise** in the process of designing major policy orientations.

1) 12 Energy Agencies among the 14 that answered the questionnaire mention "economics" as a major obstacle to achieve industry decarbonisation. 2) 8 agencies out of 14. 3) 8 agencies out of 14. 4) 9 agencies out of 14.