

Offshore, Hydrogen and Covid-19 Recovery

Representing 12 companies from transmission system operators, utilities and technology companies in a cross-sector alliance, the Roundtable for Europe's Energy Future (REEF) affirms its support for the European Green Deal, and offer the following requests as a roadmap to a rapid and structured acceleration of the European Green Deal in the COVID-recovery, Hydrogen and Offshore renewable energy areas.



RECOVERY

- 01. Accelerate Green Deal implementation through SMART SYSTEM INTEGRATION**, enabling the energy sector to use its decarbonisation to push carbon out of hard-to-abate sectors;
- 02. Cooperative development of INFRASTRUCTURE**, allowing the sector to develop within overarching European frameworks favoring public acceptance; and
- 03. SUPPORT JOINT ACTION on climate-friendly and future-proof technologies, in particular to replace the GHG SF6**, to ensure companies have the resources and support necessary for sustainable developments.



HYDROGEN

- 04. Create expanding markets for hydrogen by spurring market demand in order to decarbonise hard-to-abate sectors, where direct electrification is not feasible**, through internalising carbon costs in energy prices and ensuring a stable investment framework for hydrogen development;
- 05. Facilitate coordinated development of electricity/gas/hydrogen infrastructure**, allowing a cost-efficient and energy-efficient decarbonisation and ensuring good interactions between electricity and hydrogen sectors; and
- 06. Harmonise the European system to document the origin of all hydrogen**, to make it possible to document sustainability throughout the value chain.



OFFSHORE

- 07. Ensure progress on existing hybrid projects**, while a long-term regulatory framework is developed;
- 08. Ensure an efficient long-term offshore regulatory framework** that allows for multi-purpose infrastructure, green investments and cross-sector flexibility; and
- 09. Bring at least 300 GW offshore online without disrupting efficient electricity markets and grid operation**

REEF's concrete recommendations on Green recovery

REEF supports the EU's recommendations for Next Generation EU and the new multiannual financial framework that includes a target to use 30% for climate purposes, which will strengthen decarbonization efforts. However, the recovery from COVID-19 must keep people, jobs, and economic inclusion at its heart. We offer the following recommendations for action in the energy sector that can support a sustainable post-COVID recovery.

1. Accelerate Green Deal implementation through SMART SYSTEM INTEGRATION

Smart system integration allows a decarbonized electricity sector to push carbon out of hard-to-abate sectors and moves Europe to a flexible energy model with connections across value chains. REEF proposes that the EU:

- a) Introduces cross-sector protocols for digitalization which will increase standardization across sectors and create increasingly open energy connection codes that will facilitate data exchange across transport, construction, industrial and power sectors. Smart meters should be the new normal along with smart EV charging infrastructure. Digitalisation and smart meters will be the backbone for efficient energy markets and create flexibility to balance intermittent RES.
- b) Increases the application of carbon pricing through integrating the costs of carbon and other externalities in all energy prices to create a level playing field between different energy carriers and to drive sector integration forward by making green solutions more competitive across markets and sectors. Market-distorting taxes and regulations need to be removed. A robust carbon border adjustment mechanism (CBAM) will provide strong support for a robust European carbon price and prevent carbon leakage.
- c) Ensures coordinated systems planning and operation throughout the energy sector and especially, based on the energy-efficiency first principle, for electricity and hydrogen.

2. Cooperative development of INFRASTRUCTURE

- a) Cooperation is essential to drive the development of green infrastructure technologies. An overarching European framework should require and strengthen collaboration between actors and support development and R&D for emerging renewable technologies. Infrastructure regulation that incorporates the public's needs into planning processes, should ensure that the energy transition is centered on people's well-being, benefitting the consumers. This is essential for gaining acceptance for the green transition. The energy transition and people's well-being should be seen as complementary. Companies in the energy- and digital fields should also focus their goods and services development on the individual needs of concrete consumers, e.g. providing them, through grid digitalisation, with flexible solutions.
- b) Increase R&D support for green infrastructure technologies in Horizon Europe. Electricity grids need to be integrated in the European Industry Forum so that stakeholders from different sectors can develop common solutions for clean and resilient electricity grids together. Requirements for green public procurement can further support new technologies on the market. This will stimulate innovation and contribute to the development of "exportable" industrial sectors.
- c) Protect the cyber security of energy systems, as operation become increasingly virtual, and avoid fragmented and decentralized approaches. REEF can provide concrete best-practice examples, operating models and know-how to assist in planning cybersecurity legislative and non-legislative measures in this regard.

3. SUPPORT JOINT ACTION on climate-friendly and future-proof technologies to replace SF6

- a) Supporting joint research on climate-friendly technologies to replace the greenhouse gas SF6 as an insulation medium in new grid installations and – where possible – in existing equipment;
- b) Creating a framework to enable open exchange of best practice and experience from pilot projects between TSOs and manufacturers.

Develop an assessment methodology, taking into account the entire life cycle of the alternatives, in particular cost associated with maintenance, environmental and safety impact.

REEF's concrete recommendations on EU hydrogen policy

Green/clean hydrogen will play a crucial role in decarbonizing hard-to-abate sectors in the future, where direct electrification is not feasible. While hydrogen production from electrolysis is a proven technology with large growth potential, production costs are expected to fall with increasing demand and economies of scale. Where needed, incentives should support the development of a market for green hydrogen and will thereby start a reinforcing circle of increased demand, increased investments, and further reductions in costs. REEF emphasizes that hydrogen should mainly be driven by market-based, effective price signals and production be coordinated with electricity production and grids. Several measures can contribute to this:

4. Create expanding markets for hydrogen by spurring market demand in order to decarbonise hard-to-abate sectors

- a) Strong and consistent carbon pricing through a tightened EU ETS and equivalent carbon taxes in other sectors improve the competitiveness of clean hydrogen. This can be further supported by a carbon contracts for difference scheme and investment support in the early phase.
- b) Setting concrete and stricter emissions reduction targets with functioning sanctions in place combined with encouraging long-term contracts for the delivery of green hydrogen, will contribute to the spurring up of market demand; and
- c) Effective markets should provide transparent price signals to ensure cost-efficient production, allowing for an optimal use of electrolyzers given an increasing share of intermittent renewable power production.

5. Facilitate coordinated development of electricity/gas/hydrogen infrastructure

Coordinated development of electricity/gas/hydrogen infrastructure will allow infrastructure cost savings and ensure electrolyzers are built where it makes economic sense, allowing a cost- and energy-efficient decarbonisation and ensuring good interactions between electricity and hydrogen sectors. This should be achieved through:

- a) Encouraging collaboration between gas and electricity system operators to align energy systems, based on the energy-efficiency-first principle and full decarbonisation at least cost;
- b) Using appropriate price signals to inform about the optimal location for electrolyzers in relation to total energy system costs including flexibility services; and
- c) Applying the unbundling principle, or other carefully designed market regulations that avoid market distortions and an uneven level playing field.

6. Harmonise the European system to document the origin of all hydrogen

Europe needs a system to document the origin of all hydrogen, and this system should

- a) Be built on existing documentation schemes for green electricity, e.g. the voluntary EU Guarantees of Origin system; and
- b) Be applied to all parts of the value chain from energy to final product.

REEF Recommendations on Offshore Renewable Energy

REEF companies are active in the North Sea and the Baltic Sea. We recognize that Europe's climate ambitions **necessitate a rapid and strong increase in offshore wind deployment**. As we integrate markets and develop more complex hybrid offshore infrastructure, we urge the EU to ensure a balance between the **progress on current offshore developments**, and **an efficient long-term regulatory framework and market for electricity for offshore wind**. REEF has three main messages:

7. Ensure progress on existing hybrid projects

The EU needs to ensure that existing hybrid projects, like Nautilus, Eurolink and Windconnector, **are developed without delay** despite on-going policy discussions on the development of a long-term regulatory framework. This should be achieved through:

- a) Ensuring that they have access to EU financial instruments where appropriate; and
- b) Encouraging cross-border and cross-sectoral cooperation between governments and companies.

8. Ensure an efficient long-term offshore regulatory framework for green infrastructure investments and flexibility

While the existing regulatory framework is fit for delivering interconnectors that deliver market coupling, and radial connections that bring wind power to their home market, we need solutions for dual-purpose infrastructure and sharing grid capacity as well as multi-purpose, cross-sector hybrid solutions. The EU should focus on **providing proper incentives to develop infrastructure and storage solutions for offshore wind** and ocean energy by:

- a) a long-term framework for multipurpose interconnectors that promotes cooperation and sharing of grid-capacity in a fair and market-based way, that efficiently integrates offshore and onshore markets. The electricity markets regulation should apply equally to markets onshore and offshore. Offshore bidding zones or other innovative alternatives can provide such a holistic solution on the short term and national authorities and regulators should be able to keep sufficient flexibility in this regard.
- b) adapting the TEN-E to reflect the potential of offshore transmission projects of European relevance focusing in particular on offshore wind farm connections above 500MW (as the first building blocks of future offshore networks), storage and flexibility and allowing anticipatory investments; and
- c) enabling the deployment of at least 300 GW offshore online without disrupting efficient electricity markets and grid operation. It should also enable co-operation with 3rd countries as necessary.

9. REEF recognizes that the ambition to bring at least 300 GW offshore capacity online requires some form of subsidies, to provide certainty for investors

In offshore wind and for other desirable technologies that markets alone might not provide, subsidies have a role to play but they should be designed in a way that does not limit the efficiency of markets and system operations.

- a) A robust carbon price will support the development of necessary offshore installations
- b) Support schemes for offshore wind should be on market principles such as contracts for difference and auctions and not influence dispatch. They should be designed for flexible time periods, following the development of costs and market prices.