

Guiding Principles for a climate neutral europe by 2050

Deliver an Energy Union which is focusing on climate neutrality that is fully accepted by all

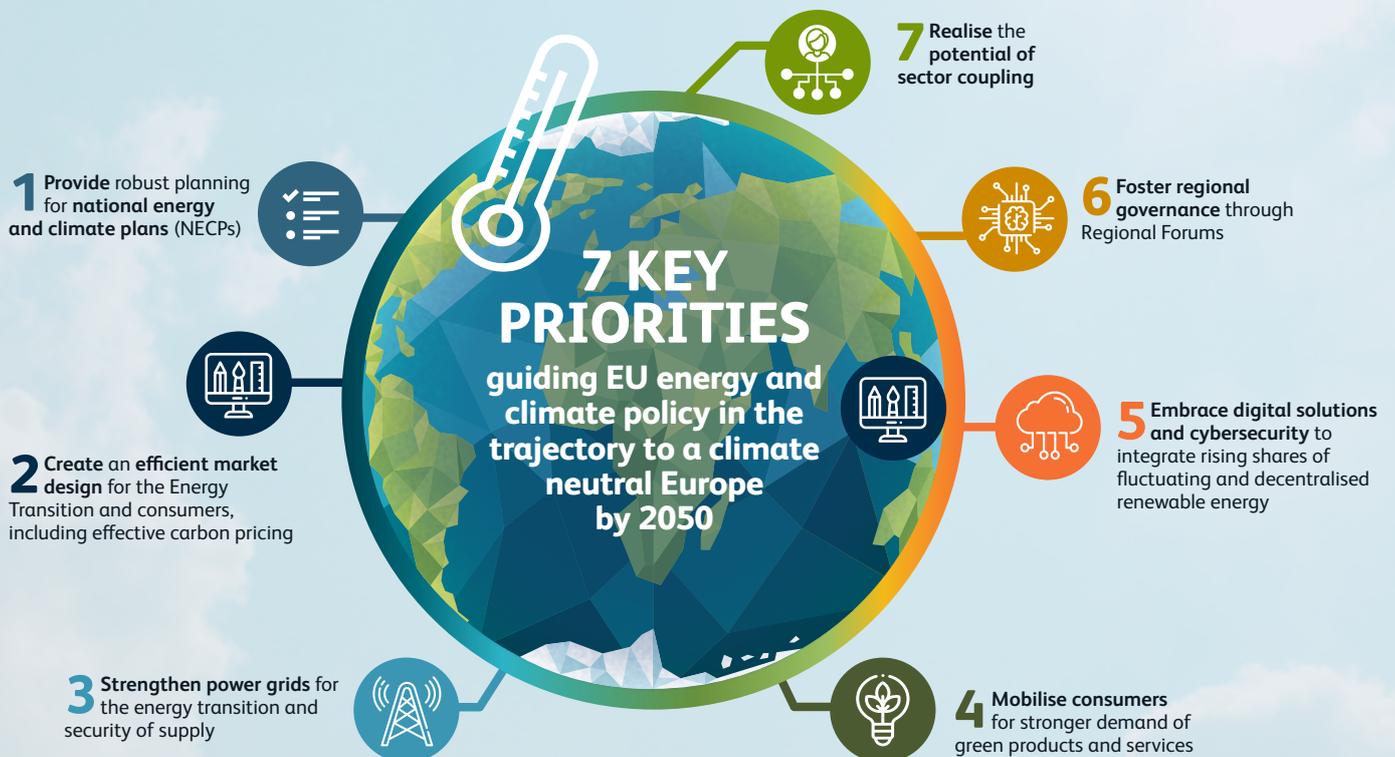
Europe finds itself in a **phase of transition**: the effects of **climate change** are already leaving their marks on many regions of the planet; the patterns of global cooperation are changing; longstanding political realities and alliances are challenged. The **energy transition is at the heart of these changes** and the members of the Roundtable for Europe's Energy Future (REEF), at the forefront of technological advancements, commit to take action for a sustainable, viable and **greener future**.

Through the **European Energy Union**, the Commission has created a powerful framework to enhance the transition to a greener future. For Europe to be at the forefront of **combatting climate change** and to meet its commitment under the **Paris Agreement**, achieving net-zero emissions by mid-century is a pre-requisite.

The European Union will also need to take a leading role in international climate negotiations to raise the ambition level and make a real difference in the everyday life of people. This requires gaining the support of citizens. We as a Roundtable want to facilitate this.

In the interest of society, we spur **innovation in the areas of digitalisation and sector coupling, develop new business models and connect citizens across borders** in order to create a cleaner and greener future for all Europeans.

Hence the REEF stresses the following **7 key priorities which should guide EU energy and climate policy in the trajectory to a climate neutral Europe by 2050**:





1. Provide robust planning for national energy and climate plans (NECPs)

- The REEF companies are committed to supporting the Paris Agreement and the process towards **EU climate neutrality by 2050**.
- The EU's **national energy and climate plans** are an important instrument on the path to 2050. Against this background, the REEF is ready to support the EU and its Member States in their finetuning and implementation of the plans. In order to make optimal and effective use of this instrument, Member States should exchange best practices and results of national planning processes and benefit from cross-border cooperation.
- **Grid operators, power generators and industry should be consulted** before and during the decision-making and planning processes of NECPs. This will foster better coordination and promote cross-border and regional cooperation.



2. Create an efficient market design including effective carbon pricing

- The REEF welcomes the adoption of the Clean Energy Package. We are committed to the efficient use of resources and believe that market-based instruments as well as **more closely integrated power markets and sectors are some of the key drivers of the transition to climate neutrality**. Well-designed market mechanisms will not only strengthen grid operations, but also ensure a continuous supply of high-quality electricity everywhere in Europe.
- Carbon pricing is the most cost-efficient instrument to achieve emissions reductions and the EU should continue to protect and strengthen the EU Emission Trading Scheme (ETS). In order to achieve an effective carbon price, possible EU policies that overlap with the EU ETS should be minimised and mitigated. In addition, efforts should be made to link international CO₂ pricing schemes to evolve towards a global CO₂ price.
- The transition to a decarbonised electricity system means a significant reduction in flexibility resources coming from coal and gas. This “flexibility gap” must be covered by all – existing and new - options such as flexible low carbon generation, demand response, storage and digital tools. The EU should quickly implement the provisions of electricity network codes and the Clean Energy Package to ensure that all flexibility sources are offered to all market actors under commercial conditions.



3. Strengthening power grids for the energy transition and security of supply

- Strong, interconnected power grids will secure a more balanced and stable power system across Europe. Interconnectors contribute to decarbonising Europe and enhance solidarity between Member States regarding security of supply, while larger markets will strengthen competition (by opening regional markets) with the result of lowering the average consumer prices. For this, the REEF urges the legislators to establish the right **regulatory incentives and an enabling framework that delivers the next generation grid investments**.
- To gain public acceptance for grid infrastructure, decisionmakers and industry should jointly demonstrate the benefits of strengthening electricity grids through a Europe-wide approach of educational communication, as well as developing new innovative ways and tools to foster local acceptance. The REEF companies are committed to actively contributing to this task.
- In order to enable a balanced development of grids, generation plants and markets, permitting procedures need to be accelerated, taking into account public acceptance considerations.



4. Mobilising consumers for stronger demands of green products and services

- The REEF acknowledges that the role of the consumer is a central part of a successful energy transition. The EU should thus apply the principle of „fair and sustainable transition“, as already proposed in the Energy Union Social Pact. The social dimension underpins the sustainability of the Energy Union. It ensures equal ownership by all stakeholders as well as solidarity with future generations.
- In addition, the transition to a circular economy through appropriate efficiency and recycling regulation is essential. This helps to minimise greenhouse gas emissions and waste. Digital tracking of carbon intensity throughout the life cycle should also be put in place to present the consumer with an appropriate choice. The REEF members believe that balancing a consumer-centric energy system enabling active market participation with large scale generation and transmission grids is important to offer a win-win for all actors.
- As consumer demand for green products continues, a European labelling system must be established. This will ensure a fair energy transition and push carbon out of the energy system.



5. Embrace digital solutions and cybersecurity to integrate rising shares of fluctuating and decentralised renewable energy

- The REEF believes that energy as a service will have a dramatic breakthrough. The REEF members are committed to applying new digital technologies such as the Internet of Things, Artificial Intelligence, Blockchain, Big Data and Cloud Computing to consumers' energy services. The EU regulatory landscape must evolve in parallel so that these opportunities can be translated into instruments that help to manage a more complex power system that preserves efficiency and security.
- Customers - households and industries - not dealing with data as their core business need to be well informed on data ownership and access during their decisions. Along the same lines, data ownership, confidentiality, integrity and availability must be clarified and future-proofed as a framework enabling investment security for companies that build and develop data-based technologies. The REEF invites the European Commission to continue its efforts to remove existing barriers to free data flow and to create the necessary framework for secure and competitive data access and transfer in the power sector.
- As digitisation progresses and the European energy infrastructures become an increasingly interconnected ecosystem, grid operators are ever more vulnerable to cyberattacks. For grid operators to ensure the security of the energy system at all times, the European certification needs to be made mandatory for ICT products, processes and services linked to the operation of the electricity grid.



6. Foster regional governance through Regional Forums

- The decarbonisation of the economy and a safe system operation requires strong cross-border day to day cooperation between TSOs. Well-coordinated national energy policies are also needed to ensure security of supply in the longer term. To this end, we stress the importance of strengthening cooperation at all levels in Europe: EU, national, regional and local authorities should act in accordance with the principle of subsidiarity.
- For the regional level, Regional Forums, as proposed by the REEF for the cooperation among Member States and regulators, provide a promising cooperation framework. Within these forums, cooperation should not be limited to technical cooperation: regulatory and policy cooperation is essential from an efficiency perspective. The Clean Energy Package makes first steps in the direction of fostering cooperation among Member States.
- Visionary pilot projects, e.g. on sector coupling and system security, should be developed on regional and transnational level. Good examples for a successful cooperation are the Baltic Energy Market Interconnection Plan (BEMIP) and the Pentalateral Forum.



7. Realise the potential of sector coupling

- The electrification of many sectors is the key to decarbonising our economy, in particular heating and cooling, transport and industry. This requires holistic strategies at the national level and beyond, setting emission reduction targets for sectors outside of the ETS, using carbon price signals where applicable, developing grids and other infrastructures and, above all, smooth planning and approval procedures.
- To achieve the 2050 climate neutrality objective, all technical innovation options need to be considered. Efforts in research and demonstration should be accelerated so that energy can be used in the most efficient way in all sectors, keeping in mind a technology neutral approach. New solutions that enable bi-directional energy flows between sectors (electricity and gas, industrial, heat and transport networks) should be considered to enhance the flexibility of the system, for example:
 - “Power-to-X” technologies to investigate how power, gas and heat networks could be further integrated and optimised, while ensuring resource efficiency and welfare benefits.
 - “Smart charging and vehicle-to-grid” technologies to make all the flexibility benefits provided by e-mobility available for the energy system. Standardisation must be a priority to allow for seamless communication between cars, charging stations and power networks.
 - Smart thermal grids, which optimise heating and cooling supply and demand and link into the electricity system, to be incentivised by promoting flexible heating and cooling tariffs, as well as smart labelling and automation standards for buildings.

Climate change is already disrupting national economies, affecting lives globally, and will continue to do so even more in the future. If no adequate measures are taken, the effects will be irreversible. The world therefore needs to take urgent action to combat climate change and to mitigate its negative effects.