

# Climate Protection & Energy Systems

## The Challenge

The transition to a low-carbon society has begun but we are not seeing change at the scale and scope that is necessary to avoid the existential risks from climate change to our living environments. To meet the internationally agreed target of keeping the global average temperature rise since pre-industrial times below 2°C, current behaviour patterns and business models will need to change considerably.

Moving towards a low-carbon system comes with fundamental changes in terms of energy choices, infrastructure and market design. Currently, European Union (EU) energy policy is viewed as a patchwork of interventions on different levels, which creates uncertainty. As the energy system in Europe is fundamentally changing, the integration of power-heat-transport systems has become key. The EU needs to meet its energy policy objectives on an ongoing basis, in addition to decarbonisation and including security of energy supply and cost competitiveness now and in the future.

## The Objective

These developments call for a reorientation and integration of European energy policy frameworks. The objective is a modern low-carbon society, where citizens live in cleaner environments, industry is competitive with high levels of efficiency and lower emissions, and there is less reliance on the use of imported resources such as oil and gas. With the right infrastructure in place, decarbonised electricity can serve traditional purposes, supply heat for buildings and replace fossil fuels in powering vehicles.

1. It is necessary to ensure an ambitious European climate and energy agenda, which fosters the use of a range of low-carbon power generation options, the rapid expansion of renewable energy sources and the development of an integrated energy market.
2. The EU needs to create the stability of commitment that leads to investor certainty, allows an orderly, just transition, and delivers structures and incentives able to adapt to a range of future circumstances and innovations.

### The Fundamental Hypothesis of the European Climate Foundation (ECF):

Tackling climate change effectively is a prerequisite for peaceful, prosperous societies in Europe and around the world. As climate change ignores national and sectoral boundaries, climate protection strategies need to build bridges across those divides. Concerted action is vital. Together with our partners the ECF mediates between different perspectives and helps develop dynamic, new agendas, which can stand the test of time in a plural, democratic society.



# Areas of Engagement

## Ambitious Goals

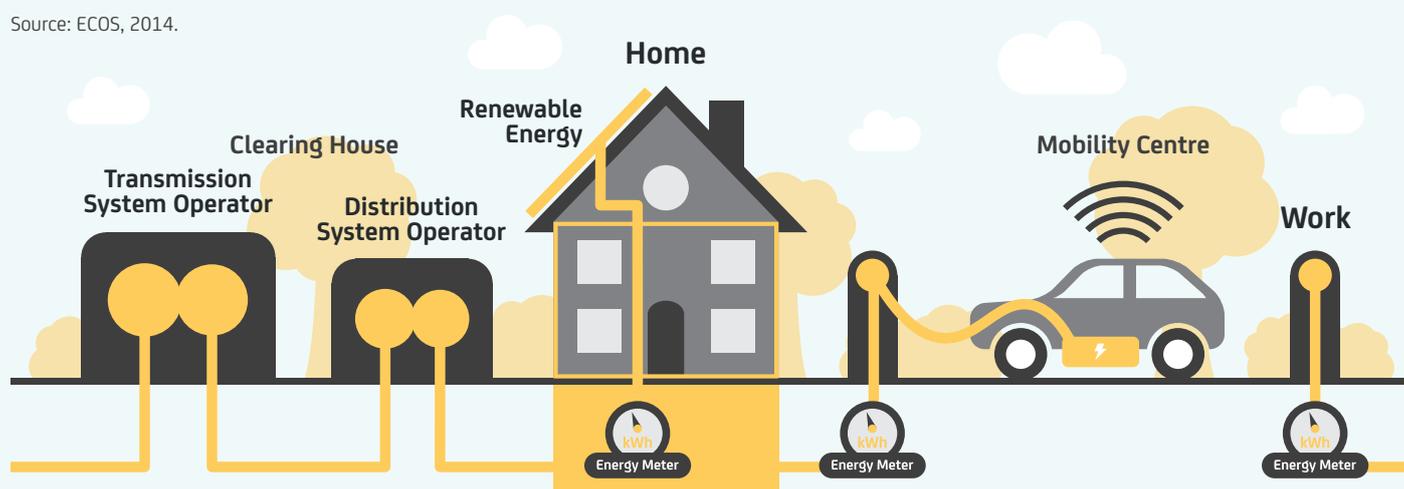
To ensure a renewable energy pathway and further market integration, the ECF focuses much of its efforts on the European climate and energy agenda through analysis and supporting the discourse and activities of diverse stakeholder groups.

EU energy policy has two pillars. On the one hand, the liberalisation agenda, implemented gradually over the last two decades with consecutive Internal Energy Market packages, and, on the other hand, a decarbonisation agenda. Thanks to the ECF and partners, there is a wide recognition that integrated and flexible electricity markets are the most efficient way to make best use of Europe's renewable resources, reduce fuel imports fast, and manage the costs for business and consumers. Moreover, the ECF and its partners work to ensure further ambition following the decision on 2030 targets at the European Council in October 2014 to reduce greenhouse gas emissions, expand on renewable energies and increase energy efficiency.

Both of these agendas sit under the ambitious Energy Union heading. The key challenge for policy makers is to merge these two agendas effectively. Ensuring that the Energy Union delivers decarbonisation is indeed the benchmark by which Europe will be measured both internally and externally. The Energy Union, launched by the new European Commission in 2015, sets out a positive vision for climate and energy security. However, this vision will need to be fleshed out in the coming years. The ECF and its partners contribute to the vision and engage to make a coordinated effort a reality. In partnership with Third Generation Environmentalism (E3G), the Cambridge Institute for Sustainable Leadership (CISL), Regulatory Assistance Project (RAP), Agora Energiewende, Renewables Grid Initiative (RGI) and others the ECF works on ensuring ambition in the low-carbon transition.

## SMART GRID – ARCHITECTURE AND APPLICATIONS

Source: ECOS, 2014.





## AGORA EUROPE

Since Germany is the main transit country for energy in Europe, a European perspective on Germany's energy transition is imperative. Therefore, Agora Energiewende, a joint project of the Mercator Foundation and the ECF, started the European Energy Cooperation programme to support market integration. The cooperation of Germany with its neighbours, specifically Poland, France and the Nordic countries, is critical to the success of this programme. The Agora and its partners initiate joint research projects,

facilitate stakeholder dialogue, and identify synergies and ways to jointly drive forward the energy transition. These are also the key activities that Agora and its partners, the Institute for Sustainable Development and International Relations (IDDRI) and CE Delft, pursue to support the official process of the Pentalateral Energy Forum, one of the most promising attempts to drive regional market integration as an intermediate step towards Europe-wide solutions.

## Sound Implementation

Not only do we need ambitious targets but also legislative and institutional arrangements that are sufficiently robust to ensure target delivery and maintain the policy trajectory towards meeting the EU's long-term climate objectives. Hence, the ECF also deals with the questions of how targets can be achieved and policies can be put in action. The EU constitutes a unique laboratory for the procedural and institutional arrangements necessary to allocate power and responsibility between stakeholders for the achievement of a low-carbon society. The ECF is investing in new analytical capacity that captures the complexities of an integrated system.

A number of important policy frameworks in Europe are moving from the target setting and conceptual phase to implementation in Europe in the next two years, for example the Renewable Energy Directive, the Energy Efficiency Directive and the Internal Energy Market packages. While the specifics of implementation of these policies differ, there are common factors to get to improved implementation.

Good intentions often come to a halt when an effective learning cycle is missing on how to deal with implementation obstacles. This calls for better monitoring, review and verification.

Moreover, limited interaction among departments, regions, governance layers and different types of stakeholders makes the creation of comprehensive, dynamic regimes difficult. The ECF and its partners monitor, analyse and act as conveners highlighting and helping overcome these boundaries.

Energy companies across Europe are experimenting with new business models to respond to the renewables led energy transition, several of them riding the wave of the new possibilities of the digital era. In order to foster low-carbon trends, the EU will need to be credible in international climate talks, bolster investor confidence in and public support for the energy transition, and overcome fragmentation and perceived tensions with Member States over control of the agenda. There is a risk that procedural and institutional energy arrangements will marginalise the objective of sustainability. The ECF and its partners work for a strong, credible system of EU climate and energy governance – and in particular, for arrangements that comply with the principles of transparency and accountability embedded in the rule of law.

## ECF Perspective and Approach

The low-carbon transition is on its way, but will need to pick up speed. The question therefore is not if we want this transition. The question is how to sensibly manage it further. This is an open challenge, which calls for analysis and debate.

- The ECF is fundamentally guided by co-development of strategy with our partners and stakeholders. Our approach is anchored in an intense dialogue on values, strategies and impact. Since there is a multitude of interdependent factors and unforeseen disruptions to be accounted for, we frame our approach and time horizons accordingly.
- The ECF adheres to the core elements of strategic philanthropy. This includes drawing on state-of-the-art research and context analysis, formulating testable hypotheses and measurable goals, monitoring implementation, evaluating results, learning from experience and dynamically adapting to external developments.
- The ECF portfolio encompasses energy, energy efficiency, transport, economics and finance. We focus on the European Institutions as well as on Member States such as Germany, the United Kingdom, France and Poland that play a critical role in channeling Europe's low-carbon transition.

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