The role of markets in decarbonising the energy sector

EFET Narrative
July 2021

Reaching carbon neutrality is critical for European citizens and society. This will require a radical overhaul of every aspect of Europe's economy, including fundamental changes to the energy sector.

Europe has the means to respond to these challenges, partly thanks to the development and evolution over the last twenty years of open, competitive, transparent and liquid markets in power and gas and the creation of the world's largest market in carbon abatement instruments.

Building decarbonisation policy around markets

This is why we firmly believe that an ongoing focus on creating, improving and expanding markets should lie at the heart of Europe's approach to decarbonising the economy. We see competitive markets in carbon emission allowances, in energy commodities and in guarantees or certificates evidencing the renewable origin and other sustainability attributes of energy carriers (such as low carbon content) as each playing a key role in driving Europe's energy transition. EFET has been involved in developing each of these markets and our member companies as market participants remain at the heart of them:

- **Improving and expanding the ETS**

  No one could argue that the development of the EU Emissions Trading System (ETS) was simple. However, hurdles were overcome, the design was progressively improved over time and mismatches over time between supply of and demand for allowances were ironed out. The strong carbon abatement signal, which emerged now creates a clear incentive to switch away from relatively more carbon intensive processes and generation sources in those sectors already covered by the system. We believe the ETS, Europe's flagship instrument to drive decarbonisation, is something to be proud of and that there is an opportunity to both reinforce its design and expand it to additional sectors. There is also a challenge to be met, in eliminating the issuance of free allowances within energy intensive industries and implementing instead a carbon border adjustment mechanism, which embeds a carbon price in imported goods in the relevant sectors.

- **Maximising competition in energy commodity markets**

  The introduction of competition in electricity and gas markets, within countries and across borders, has delivered greater security of supply, has lowered the cost of energy for consumers and driven significant innovation. While there are areas, such as South East Europe, where there is still much to do to maximise the benefits of the Internal Energy Market, there are many lessons to be learned from the liberalisation process. The policies which allowed competition to develop – such as unbundling of the operation of transmission grids, regulated third party access to grids on objective, non-discriminatory terms, and an insistence on transmission and generation information transparency - should continue to form the basis for legal and regulatory frameworks for new services and technologies such as hydrogen, storage and demand response. As power and gas systems become more integrated, we think it is important that price signals play an even greater role in indicating which different forms and uses of energy provide the most efficient solutions, with the overall objective of carbon neutrality in mind. Thus, it is essential that regulators do not promulgate rules, which artificially suppress the volatility

of prices in spot and balancing markets, nor which impede the visibility of prices and liquidity in forward market timeframes.

- **Potential markets in guarantees of origin and sustainability certificates**

  Reaching carbon neutrality is going to require every energy end use sector and various technologies to contribute. This means that we need to define standards for measuring and comparing the sustainability attributes of renewable and low carbon energy carriers and develop ways of validating the application of those standards to individual sources through the issuance of certificates. Harmonised European systems for Guarantees of Origin and low carbon certificates, would open multiple opportunities, e.g. to increase consumer trust, to verify national energy mixes on the path to net zero carbon, to support new voluntary markets in certificates and to underpin RES or low carbon quotas set by governments in certain energy end use sectors. These systems should foresee safeguards to avoid double-counting and fraud. It is crucial that markets in such instruments operate separately from markets in the underlying energy commodities.

Well-functioning markets are clearly not an end in themselves. However, by creating pressures for firms to become more efficient and more responsive to customer needs and by rewarding those who innovate and invest in more efficient technologies, markets lead to outcomes which are good for society and welfare. Thus, we believe that markets have a central role to play in driving progress towards our decarbonisation targets in a way that maintains the competitiveness of European industry and minimises the costs to citizens.

Complementing markets with compatible decarbonisation policies

The urgency and scale of the decarbonisation challenge will mean that national governments and EU institutions will need to put in place policies to drive even deeper decarbonisation. These might include measures to disincentivise or phase out the use of carbon rich fuels in specified end use applications or to accelerate the uptake of renewable and low carbon alternatives, for example by granting them financial support. This means that the question of compatibility between markets and such measures will become more important – with an opportunity to create an optimised framework, which serves to reduce the overall cost of decarbonisation. This section considers how compatibility can be created.

- **Ensuring policies and markets pull in the same direction**

  Policy interventions and the design of energy markets should be seeking to guide commercial enterprises and public bodies to make decisions, which contribute to the same overall objective. If well-conceived, they can combine to strengthen incentives and drive faster and deeper decarbonisation. If badly thought through and inconsistent, they can have a negative impact on each other and lead to inefficient costs.

  The EU ETS provides a good example: the design of the ETS ensures that carbon prices will rise if there is a shortage of allowances in the market (and fall if the opposite is true). Therefore, both supply side policies, designed to promote more production from a certain technology, or demand side policies, introduced to limit or prohibit production from a certain technology, have the potential to impact on the ETS price. For example, and perhaps slightly perversely, a coal phase-out policy, if not reflected in the design of the EU ETS, could reduce the demand for allowances and cause the ETS price to fall (possibly increasing emissions!). This is not a reason not to pursue these policies at all. However, it shows the need for close alignment between EU and Member State decarbonisation policies and the need to ensure the expected impact of these policies is reflected in the design of the ETS.

- **Creating a path to allow the national to become European**

  Where a need for action is identified at Member State level, we believe that it should be designed in a way that creates the option for it to expand over time. If this does not happen, there is a danger that a patchwork of measures develops which creates excessively complexity and acts as a barrier to efficient cross border trade.

- **Maximising competition when allocating financial support**

  While not directly related to the functioning of energy markets, it will help if the allocation of financial support to RES producers always proceeds through competitive, technologically neutral mechanisms, accessible across national borders to the extent feasible. Making the grant of aid dependent on such criteria is likely to minimise the overall cost of decarbonisation, while promoting the development of the most efficient technologies, and their deployment in appropriate locations. We also believe that it is vital that there are checks and balances in place, which allow financial support to be phased out over time.

  With view to attracting the necessary means to make Europe the first climate neutral continent in the world, it is important to ensure a stable framework for investment. Therefore support schemes should never be retroactively changed by governments nor disbursed funds reclaimed *ex-post.*

- **Thinking system wide**

  Ensuring that producers and suppliers face price signals reflecting the costs they impose on networks will allow efficient choices between technologies and between energy carriers. Thus, a focus on creating these signals, alongside more coordinated infrastructure planning across power, gas and hydrogen systems and taking an increasingly integrated approach, can drive system integration.

Conclusion

For the last 22 years, EFET has promoted competition, transparency and open access in the European energy sector – with beneficial results for Europe. We believe that Europe-wide markets in energy, carbon and sustainability attributes each have an important role to play in enabling cost-effective decarbonisation. But policy interventions are going to need to co-exist alongside markets if the EU target of a 55% reduction in carbon emissions by 2030 and the EU ambition of carbon neutrality by 2050 are to be met. We see opportunities and risks along the way:

- If interventions are executed well and markets allowed to function efficiently, least cost decarbonisation pathways are more likely to be found, public support is likely to be greater and industrial competitiveness is likely to be higher.
- If interventions are executed badly or inconsistently among countries and price signals in markets are suppressed or distorted, we could see a patchwork of incompatible or counter-productive measures, negative impacts on competition and on the liquidity of carbon and energy markets, higher overall costs and ultimately insufficient levels of emissions reduction.

We therefore see an important need to focus on the interaction of, and compatibility between, policy interventions and markets. For this reason, we are publishing a series of papers this year considering some themes, mechanisms and types of instrument identified in this paper in more detail.