Maren Strandevold in NS Energy: Industry View: Energy Businesses Will Need to Adopt a New Approach to Reach EU Net-Zero Targets

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The EU Innovation Fund will provide up to €10bn in project financing by 2030, as the region looks to accelerate new technologies that will reduce emissions on the road to net zero

The European Union's ambition is to achieve an economy with net-zero greenhouse gas emissions by 2050. To that end, it has introduced its Innovation Fund and announced the first call for applications for a total of one billion Euros for innovative low-carbon technologies.

The Innovation Fund replaces the NER 300 programme, through which the EU has provided €2.1bn worth of funding to 39 projects. The Innovation Fund is expected to make available around €10bn in the period 2020 to 2030.

These funding initiatives supplement the EU Emissions Trading System (ETS) – a "cap and trade" scheme to limit the allowable emissions of certain categories of companies, including energy producers, and enables allowances to be traded, i.e. if a company has not utilised its full emissions allowance it can choose to sell this.

Over the years, the emissions cap has gradually reduced, and as the EU scheme enters into Stage 4 from 2021 to 2030, the reductions will continue. But a cap on emissions, although important in the scheme of ensuring overall reduction, does not provide guidance on how companies can adjust their operations to stay within it.

Given that there is an active market for trading allowances, some companies are clearly not meeting the cap and, as it continues to reduce, will find it increasingly difficult to stay within the cap without making operational changes.

The likely choices are to either reduce overall operations or become more environmentally efficient.

EU Innovation Fund will play a vital role in bringing new ideas to market

It is said that necessity is the mother of invention. However, the process of innovation – taking new ideas into the commercial space and realising the benefit of them – is complex. There are many factors that need to be present for innovation to happen.

As Matt Ridley observed in his book How Innovation Works, innovation "happens when people are free to think, experiment and speculate". It is often a gradual process whereby an idea is generated and followed by a process of trial and error and may require working across disciplines. Once you have an innovative idea, you must ensure it can be replicated and is commercially viable, with a strong business case for funding and developing the new process or product.

With this in mind, it is clear that the EU Innovation Fund provides a vital component to the innovation process. In the current financial climate, securing funding is key to taking an idea from concept to reality.

However, before being eligible to secure funding, projects must have reached a stage of maturity that enables them to demonstrate that the proposed solution is effective, that there is real scalability, and that it is cost effective.

In light of this criteria, before applying for funding, companies must foster new thinking and invest in research and development to generate new ideas, some of which may not be viable or eligible for funding through the Innovation Fund.

Firms are starting to respond to this. For example, UK oil major BP has recently overhauled its strategy and has put energy sustainability and innovation at the core of its business strategy. By doing so, the company creates engagement and inspires employees to take ownership, which in turn leads to a culture that promotes both innovation and profitability.

Companies may also want to look at cross-collaborations. A recent example is the Northern Lights Project, which is a collaboration between European oil firms Equinor, Shell and Total to create transport and storage infrastructure for liquefied and pressurised CO2, as part of the Norwegian government's plans to develop a full-scale carbon capture and storage (CCS) value chain.

Arrangements such as these allow for spreading of risk as well as sharing of valuable know-how.

Even if an innovative project reaches the stage where it successfully secures funding from the Innovation Fund, this will only support up to 60% of additional capital and operational costs linked to innovation, meaning that further funding may be required.

Looking at the projects that secured funding from the NER 300, 20 failed to raise additional financial support and so were withdrawn. This highlights the difficulties of securing finance for new and untested technology, and suggests that more is still needed to ensure that innovative projects can get off the ground.

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