

A place for “stranded” assets in the EU’s dual transition

Blog post by Senior Associate Giorgio Corbetta, 16 March 2021

As the EU’s commitment to carbon neutrality by 2050 is enshrined in law, a gap in the bloc’s policy agenda remains a realistic role for fossil-fuel related industries. Almost two decades on from the first use of the term “stranded investments” - investments, such as fossil fuel power generation or transmission, that have already been made but which, prior to the end of their economic life, are no longer profitable as a result of climate policy - what are the prospects for this gap to be filled?

There is no shortage of legislative proposals in the pipeline to reduce the use of fossil fuels and support new low carbon technologies and production processes. The EU is defining what investments can be considered sustainable through its taxonomy; it is reforming the Emissions Trading Scheme to incentivise emissions reduction in manufacturing, power generation and aviation; and it is tightening regulations such as the performance standards for vehicles’ tailpipe emissions. These collectively represent a determined effort to reshape patterns of consumption and production, but the expertise and responsibilities of the decision makers - at least at the policy design stage - rarely extends to managing the consequences.

Meanwhile a growing minority of European politicians are focussing on the risks of alienating citizens that could be “left behind” by these changes, in a repeat of the dislocation and structural change in industrial regions during the most recent wave of globalisation. The “Just Transition Mechanism” is the most substantial response so far, offering offers €150bn for workers, businesses and regions affected, primarily in funding for technology investment and retraining. However, in the context of rendering a vast population of fossil fuel assets unviable, this investment remains relatively modest.

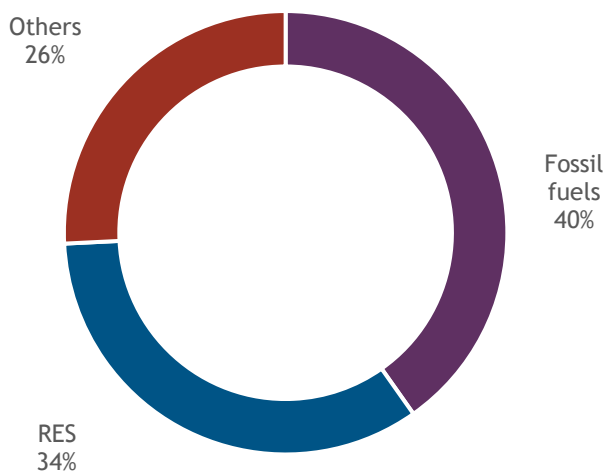
Take for example the electricity sector, which is central to achieving the EU net-zero goal. Renewable energies now provide 34% of EU electricity generation but the sector is still responsible for over a quarter of all EU emissions. Fossil fuel power generation (including natural gas, coal, and oil) makes up 45% of installed power generation capacity (or over 493GW), almost one in every two GW installed, and more than wind, solar and hydro power combined. To achieve carbon neutrality, less than 5% of this capacity will be allowed to still be there in 2050, but there is no clear plan about the future of fossil fuel installations.

A change of this scale will require a more holistic political and policy approach, and the European Commission thinking since 2010 could provide part of the answer: repurposing and converting brownfield sites. There are some examples internationally, reflecting that fossil fuel power plants already have some valuable built-in components, such as grid connection and transport infrastructure. Coal power plants are being converted into [compressed air batteries](#), [nuclear power](#)

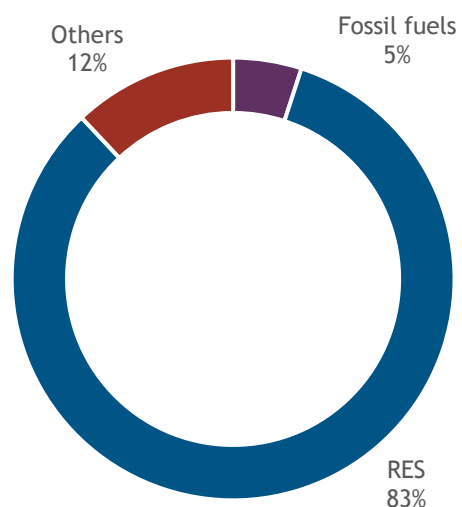
[plants](#), or even [data centres](#). But the costs attached to installing carbon capture and storage technology, or converting coal power plants to use renewable fuels can be challenging to predict.

Making the case for investing in the technology and expertise for repurposing will be challenging and require significant political effort - as the commission found in the tortuous process of building the [European Battery Alliance](#). But there is a political coalition to be built, with applications in a wide range of sectors from cleantech to construction, from recycling to waste conversion. The intuitive potential for exporting knowhow and technology on repurposing, and for setting new international standards, also offers some alignment with the political messaging around “open strategic autonomy”. The delayed follow up to last year’s [New Industrial Strategy for Europe](#), now been scheduled for late April, is an important moment to clarify the prospects for firms, workers and regions dependent on fossil fuels and whether they will be included in the ambitious visions for 2030 and 2050.

EU power mix in 2018



EU power mix in 2045



Fossil fuel power generation will fall by a factor of eight by 2045, with close to zero coal power generation installations and just 15% of installed gas capacity, mainly for system reliability. Sources: Eurostat, Eurelectric, Statista