Europe OPEX Insight Report

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Executive summary

Policy and legislation are the driving force behind renewable capacity growth in Europe as countries prioritise green energy sources to drop carbon emissions and get closer to net-zero emissions. Each country has their own carbon emission target, as well as targets for certain energy sources (which will be explained in further depth throughout this report).

In the last 12 months, we have seen large growth in Onshore Wind, Solar and Hydroelectric capacity across Europe. Three very mature industries in the continent, together these energy sources produce 92% of Europe's renewable energy (313GW of 338GW total installed capacity). This is shown below with additions to the grid in 2022 being considerably higher than the last five years average for these three sectors.

Increased wind development has been seen in Scandinavia, specifically in Finland and Sweden. Finland has seen 18 new developments commissioned since 2018 with a total capacity of 1.5GW. In Sweden, 32 new developments have been commissioned with a combined capacity of 1GW. This level of addition is expected to increase as countries across Europe look to meet future net-zero targets and move away from carbon intensive industries which have been well established, to develop and invest in newer and cleaner energy production methods.

Under the Paris Agreement, Norway is committed to reducing their emissions by 55% by 2030 with an eventual target to be a low emitter by 2050.

The country itself has a huge oil industry offshore in the North Sea, which they are currently looking to electrify to cut emissions but have also looked to invest further in greener sources of energy. In October 2022, the Norway Energi21 strategy was agreed. This is the Norwegian strategy for research, development and commercialisation of new climate-friendly energy technologies. Established in 2008, it focuses on enhanced value creation and efficient use of resources in the sector by putting efforts in for research and development and new technology. The strategy puts forward eight focus areas which are given special attention: Offshore wind, hydrogen, solar, CCS, Batteries and Hydropower, integrated and efficient energy systems and Energy markets and regulations.

Other countries are looking to go one step further to reduce emissions. Sweden is targeting to be 100% fossil fuel free by 2040. The country was a high user of Russian fossil fuel supplies before the invasion of Ukraine in March 2022, but has had to look at new sources after the European Union announced its RePowerEU plan to make Europe independent from Russian fossil fuels well before 2030. This has also affected Denmark, who has also had to reconsider energy targets since Russia's invasion of Ukraine as they were also a high user of Russian supplies. The country has a mature offshore oil and gas industry in the North Sea, but plan to end all oil and gas extraction in the North Sea by 2050. All gas must be green by 2030 and no residential dwellings will be allowed to use gas as a heating source past 2035. This is why the country is looking to invest further in renewable energy sources, with 20GW solar production targeted for 2030, as well as 4-6GW of green hydrogen production by 2030 also.

This report provides an overview of the progress European countries have made transitioning to renewable energy, as well as where growth in the renewable market will take place over the next five years. It covers the 27 member states of the EU, as well as Albania, Bosnia and Herzegovina, Iceland, Kosovo, Liechtenstein, Montenegro, North Macedonia, Norway, Switzerland, and Turkey. For information on the renewables market in the UK, please go to the UK Operational Renewables Report 2022, which can be found on our website. To view our thresholds in EICDataStream and EICAssetMap, please **click here.**