

# Europe's moment: The green recovery and Europe's solar sector

**Europe** | The European Union has pinned its hopes for an economic recovery in the wake of the COVID-19 pandemic on green and digital technologies. Molly Lempriere looks at the part solar could play as details are fleshed out

**A**t the end of May 2020, the European Commission announced that this is Europe's moment to repair and prepare for the next generation as it targets support for a major recovery plan to help rebuild following the unprecedented COVID-19 pandemic. A key part of this includes the proposed new mechanism, Next Generation EU, which will look to protect lives and livelihoods, repair the Single Market and build a lasting and prosperous recovery.

Key for the solar industry is that this instrument is not just looking to rebuild the economy as it was, but actively green it, targeting sustainability, climate action and – crucially – renewable energy.

European Commission president Ursula von der Leyen said the recovery plan would turn an “immense challenge” into an opportunity but not just supporting recovery but investing in the future.

“The European Green Deal and digitalisation will boost jobs and growth, the resilience of our societies and the health of our environment,” she continued. “This is Europe's moment. Our willingness to act must live up to the challenges we are all facing. With Next Generation EU we are providing an ambitious answer.”

Next Generation EU centres around €750 billion in funding, along with targeted reinforcements to the long-term EU budget for 2021-2027. In total this would bring the financial firepower of the EU budget to €1.85 trillion.

While these headline figures have been broadly welcomed by those in the solar sector however, how this money will be targeted remains to be seen and will depend on the applications put forward by member states. The multiannual financial

framework will allow funding to be channelled through EU programmes and repaid not before 2028 but not after 2058.

Currently the EU is working on developing the details of how the funding will be used, with more detail expected by the autumn to clarify exactly what it will mean for renewables.

## Recovery and resilience: Greening the next steps

From the European Commission's initial proposal we know funding for the renewables sector and other green sectors within Next Generation is split into a number of segments. The largest of these is the Recovery and Resilience Facility, which will consist of €560 billion of financial support for investments and reforms. This includes green and digital transitions, the EU stated, as key priorities.

Miguel Herrero Cangas, policy advisor at trade body SolarPower Europe says that in order for Recovery & Resilience Plans to be approved by the Commission, member states will have to show their actions can “significantly contribute to the green and digital transition”. While this is vague, he continues, “this could potentially have a strong impact on the renewable energy sector and the solar sector in particular as a major contributor to the green transition and driver of green jobs”.

Beyond this, there is funding available to help kick-start the EU economy by incentivising private investments. This includes upgrading its current investment programme, InvestEU, to a level of €15.3 billion. A new facility will be built into this, to generate investments up to €150 billion in strategic sectors.

In order to address lessons learnt from



Credit: Iberdrola

**Solar energy looks set to play a central role in Europe's post-coronavirus economic recovery**

the COVID-19 crisis, further spending has been set aside for health programmes and civic protection. Additionally, €94.4 billion will go to Horizon Europe, to reinforce vital research into various areas including the green transition.

The lack of clarity as to what will go to each sector currently seems to be partly by design; the exact allocation will be influenced by the responses from member states, allowing them to direct the funding towards the most impactful areas through the consultation period.

According to a leaked document published on website Euractiv a week before the official plan was shared, €91 billion has been earmarked for rooftop solar panels, insulation and renewable heating systems.

As part of this, the document suggests that the EU will tender 15GW of renewable electricity over the next two years. There will be a renewable energy acceleration programme designed to support 25% of the market, with a total capital investment of €25 billion. If this rings true, the EU's green recovery holds a lot of promise for the solar sector.

## Green hydrogen at its heart

A key tenet of Europe's green recovery is its commitment to hydrogen, to support the decarbonisation of industry, transport, power generation and buildings. The European Commission has launched its Hydrogen Strategy, to target at least 6GW of renewable hydrogen electrolyzers in the EU by 2024, capable of producing up to one million tonnes of renewable hydrogen.

Executive vice-president for the Green Deal, Frans Timmermans, said the strategy would help bolster the Green Deal and the green recovery, ensuring Europe is on the right path for a decarbonised economy by 2050. "The new hydrogen economy can be a growth engine to help overcome the economic damage caused by COVID-19. In developing and deploying a clean hydrogen value chain, Europe will become a global frontrunner and retain its leadership in clean tech."

Beyond 2025, the Commission wants hydrogen to become a central part of the integrated energy system with at least 40GW of renewable hydrogen electrolyzers to increase production to ten million tonnes of renewable hydrogen by 2030. At this point, renewable hydrogen technologies are expected to have reached maturity, allowing them to be deployed at scale. The Commission argues that with energy system currently accounting for 75% of the EU's greenhouse gas emissions, more than just renewable electricity will be needed to tackle this, and hydrogen appears to be its preferred solution for many hard-to-decarbonise sectors.

Currently, hydrogen provides just a "modest fraction" of the global and EU energy mix. Scaling up to reach the EU's goals will take significant change and investment, with the EU estimating it will need somewhere between 80GW and 120GW of solar and wind capacity. This will likely cost somewhere in the region of €220-340 billion.

## Germany: Cutting the cap

While the EU green recovery funding is likely to aid solar and green hydrogen throughout the continent, many countries have been making their own moves to shore up the industry. In Germany, this crucially included the removal of the 52MW cap for solar sites in the middle of June.

According to the Bundesverband Solarwirtschaft (BSW) – the German solar association – the removal of the cap came "just in time."

"The industry's business expectations had gone into free fall in the first quarter of 2020. More and more large solar roof projects burst as it was not clear whether they would be connected to the grid in time. If we had not brought the solar cap down before the political summer break, hundreds of solar companies and over ten thousand jobs would have been at risk," says BSW managing director, Carsten Körnig.

According to a study conducted by the BSW together with the Intersolar Europe trade fair, 96% of market participants think the abolition of the photovoltaic subsidy limit was of great importance. Of those in the study, 31% said that the end of the cap will probably even secure their business existence.

This was one of the biggest barriers to the development of large-scale solar in the country, however others remain. This includes the "sun tax" or EEG levy (the Erneuerbare-Energien-Gesetz or the Renewable Energy Sources Act), which blocks investments by small and medium sized companies, according to BSW. This is particularly concerning as it rose in 2020, up to 6.756 ct/kWh from 6.405 ct/kWh in 2019.

"Germany has a lot of catching up to do when it comes to solarising its energy supply: if only to achieve the climate targets currently in force, we need to double the pace of photovoltaic expansion in 2021 and triple the annual installed PV capacity from 2022 on-wards," continues BSW's Körnig. "The solar power plant capacities envisaged in the German government's climate protection programme for 2030 would have to be built as early as the mid-20s."

While BSW hopes that the EU green recovery will help enforce "most far-reaching and binding agreements possible in Brussels", the willingness of member states to remove barriers such as the subsidy cap will become apparent, it says. For Germany, the necessary acceleration in the rollout of solar technology will depend on reform of the national energy policy framework.

## Spain: Moving forwards by Royal Decree

In Spain, there has also been movement from the government to support the solar sector beyond just the EU's targeted green recovery. This will be necessary if it is to hit its ambitious renewables targets, set by the country's Socialist Party Prime Minister Pedro Sánchez and his government earlier this year.

In April, it submitted its national energy and climate plan to the European Commission, with the intention of cutting emissions by 23% by 2030 from 1990 levels. This will require it to grow its solar capacity from 8.4GW at the beginning of 2020, to 22GW by 2025 and 39GW by 2030.

According to EY, these targets are "aggressive but achievable" as Spain became Europe's top market for capacity additions for the first time since 2008 in 2019, adding 4.2GW of solar PV. This is set to continue and will be particularly bolstered by Iberdrola's 500MW Núñez de Balboa solar farm in southwest Spain – Europe's largest solar PV plant – which began generating power in April.

In order to further aid the solar sector and renewables more broadly, the Spanish cabinet approved a Royal Decree in June, which signed into law a raft of measures to remove barriers to large-scale renewables.

These are intended to tackle four key barriers for renewables in the country, including regulation of access and connection – which includes a new auction mechanism designed to create a predictable and stable route to market; new business models that will cover storage and hybrid projects; the promotion of energy efficiency; and numerous mechanisms to boost economic activity and employment as part of the coronavirus recovery.

Arancha Martínez, president of the Unión Española Fotovoltaica (UNEF) welcomed the decree, saying: "This standard responds to requests that we have been making in recent years and we are convinced that, under this new regulatory framework, the photovoltaic sector will be able to reactivate quickly, generating quality employment and strengthening the industrial value chain, elements fundamental in the post-COVID-19 phase."

The Spanish solar sector like all in Europe was hit by the impact of the COVID-19 lockdown, with installations grinding to a halt in many places and planning delayed. Renewable generation surged throughout the period, making up over 70% of the supply according to José Donoso, general director at UNEF, sending electricity prices tumbling and creating a challenging environment for solar producers in relation to marginal costs.

Those companies operating using power purchase agreements (PPAs) have also found this downturn a concern, with prices reduced from €40+/MWh to

Outside the EU green recovery, the UK solar recovery lags behind

While the EU's green recovery has been praised and many countries are seemingly forging ahead, others in Europe have been slower to action. In the UK there has been a lot of talk of a green recovery, but to date little of significance to the solar sector.

According to Jack Dobson-Smith, the UK's Solar Trade Associations (STA) external affairs adviser, the country has "barely begun to scratch the surface" of a comprehensive economic stimulus plan to drive a green recovery.

"With the exception of the £2 billion in funding announced to go towards low carbon

technologies, including £1bn for public sector decarbonisation and the Green Homes Grants scheme (solar thermal) there has been little in the way of dedicated support mechanisms for the industry as a direct response to COVID-19. Like many others in the renewable energy sector we are expecting to see further policies announced in the autumn," he says.

Despite the lack of clear support from the government, the STA and the UK's solar sector seemingly remain optimistic. This is largely due to the growth of the subsidy-free solar sector in the country, and the return of the Contracts for

Difference (CfD) auctions for solar.

In June 2020, the pipeline of new large-scale solar sites grew beyond 9GW, with more than 600MW added that month alone. Falling module prices and a maturing sector have ensured that the number of projects is continuing to grow, but this could be further supported by clearer policy.

"The UK solar industry is resilient and already returning to pre-COVID-19 levels of activity," continues Dobson-Smith. "It can play an important role in the green recovery. With this in mind, it is at risk of being affected by a fall in investment levels."



Credit: SPP

The UK solar industry's vital signs are strong but government support has been unforthcoming

below €30/MWh according to Donoso. In April, BloombergNEF reported that Spain had become Europe's cheapest market for corporate PPAs with the lowest prices averaging €30.50/MWh.

"The consequence of all these aspects is that we need tenders, as the single tool that can give certainty to the sector," says Donoso. This could help bring calm to the large-scale sector going forwards, regardless of the support from the EU's green recovery.

However, according to Donoso the relaxing of the lockdown has already allowed one area of the sector to boom: the domestic solar sector. Here it is growing fast for two reasons, he explains: "For one we have more devices now that give some physical advantage to the people who invest in self-consumption, and with COVID-19, more people have saved more money from social distancing and staying at home, spending less money, meaning they have

now more money in the bank.

"And particularly over those two months they've had more time to think, time to think about projects. Now, the domestic sector is growing even faster than before COVID-19"

**Moving forwards**

The true impact of the EU's green recovery is up in the air, with the extent of the support for the solar sector unclear until the consultation is complete. However, the inclusion of solar in the conversation from the outset is an encouraging sign as is the clear direction towards building back greener.

Regardless of the amount of support solar will receive though, governments throughout the continent are making steps to ensure that solar is able to contribute to rebuilding their economies. From Germany's removal of its cap and Spain's Royal Decree, to Italy's so-called eco-bonus

brought in in June that allows homeowners to claim back as much as 110% of the installation cost of solar, the sector is receiving support.

"Whether as a solar system on the home or upscaled to power plant scale, whether as "fuel" for solar filling stations for the climate-friendly operation of electric cars or temporarily stored in stationary batteries, whether as clean drive energy for heat pumps or for operating electrolyzers to produce green hydrogen: the enormous potential of the multi-talent photovoltaic system should now be consistently tapped – to supply homes and even entire residential and industrial districts with a balanced mix and intelligently controlled with other renewable energies," finished the BSW.

So, while the solar sector waits in hope for support from the Next Generation EU mechanism and beyond, it seems certain the solar sector will continue to push forwards across Europe regardless.