INTERVIEW: PPA buyers need to temper price expectations, says consultancy

Corporate buyers of renewable energy need to temper their expectations on price when signing long-term contracts for electricity, as the impacts of inflation and higher financing costs mean that these deals come at a premium to buying power on the spot market, according to a sustainability advisory.

There are many challenges involved in negotiating corporate power purchase agreements (PPAs) for solar and wind energy in Europe, ranging from negative power prices in some places, to higher materials costs and costs of financing driving up project costs, said Corina Melchor, senior clean energy advisor at Trio, a global sustainability advisory.

“It used to be the case that signing the PPA, outside of the societal and environmental benefits, was also a financially appealing proposition, but that's no longer the case,” she told Carbon Pulse.
Corporate buyers now need to accept that signing renewable energy PPAs are an investment to prove their green credentials, given that the impacts of inflation and higher interest rates have weighed heavily on the market, pushing up project development costs, she said.

“PPA prices are still lower than wholesale prices for today, but these contracts are for 15 years or so – so you may pay £70/MWh for a PPA today, versus £100/MWh on the wholesale market, but wholesale prices are forecast to drop with more renewables on the grid, so in 15 years they could be at £30/MWh,” she explained.

This often leads to a “misalignment between buyers and developers”, with the former expecting PPA prices to drop at the same rate as wholesale prices as Europe’s energy crisis starts to alleviate following Russia’s invasion of Ukraine.

However, project developers can’t offer the same cost reductions as seen on the wholesale market because they still face considerably higher materials, supply chain, and financing costs compared to a few years ago, and so need to keep PPA prices elevated to ensure a return on investment, said Melchor.

This green premium can range from €5-15 per megawatt-hour, depending on the technology, geography, and other conditions, she said.

As a result, Trio doesn’t expect Europe’s corporate PPA market to break any records this year, with some deals stuck in limbo around contractual conditions and many developers in markets such as Spain reconsidering their project pipeline, she said.

The PPA structure sees corporates commit to paying a fixed price for electricity from a renewable energy asset over a period of around 15 years, which provides the financial backing necessary to bring a new asset onto the grid.

Under the EU’s revised Renewable Energy Directive, the bloc aims to increase the share of renewables in overall energy consumption to 42.5% by 2030, with the ambition to reach 45%, which would almost double the existing share.

Despite being an increasingly important tool to bring new renewable energy online, corporate PPAs still remain a small part of the entire EU renewable energy build, however.

"As a community, European countries are relying on government auctions laid out through their NECPs [National Energy and Climate Plans] and setting up the right market incentives to meet these goals, as opposed to letting the corporations shoulder the responsibility," said Melchor.

Europe accounted for 33% of the corporate PPA market globally in 2023, at 15.4 gigawatts, up by 74% on the year prior, according to analysts at BloombergNEF.

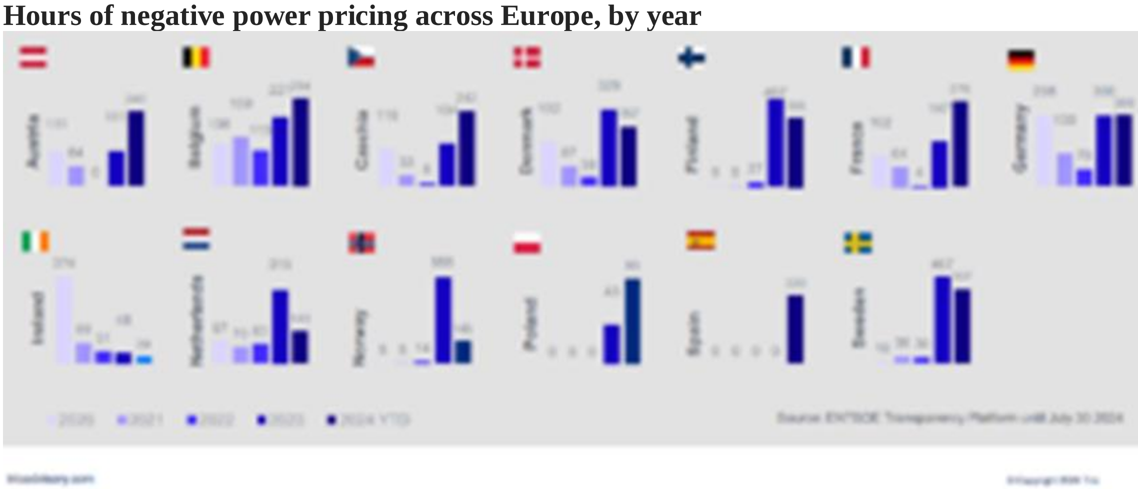
Corporate PPA prices in Europe dropped last year, often faster than power prices, as supply chain woes eased and gas balances normalised, the research house said in its Feb. 2024 report.

However, Melchor said that since April this year, negative pricing particularly in Spain has eroded the business case for developers, making PPA negotiations more challenging.

“We're seeing across Europe very high level of negative pricing due to a flood of renewable energy but also low demand from industrials due to inflation, and inefficient grid buildout,” she said.

PPA contracts therefore need to allocate the risk of this negative pricing between parties, which can be tricky to achieve, although there are ways to mitigate it such as through combining solar with energy storage for power price arbitrage or using financial mechanisms to manage the risk.

Hours of negative power pricing across Europe, by year



Note: Small numbers in grey are the number of hours of negative pricing each country has experienced, by year

SOLAR + NEGATIVE PRICES

Solar energy has been particularly impacted because most negative or low prices occur during the day when there’s lots of solar production.

This means that Spain has been hit particularly hard, with sub-€1 prices for eight to 10 hours a day in Spain since April, said Melchor.

Developers in Spain are therefore struggling to make returns on their portfolio, and are in some cases re-evaluating future buildout of solar pipelines, she said.

“Everyone’s trying to determine what scenario to believe going forward and whether these negative prices are here to stay … It's about how do we meet in the middle? How do we split that risk in a way that is fair for both parties?” she said.

Buyer demand for clean energy PPAs is still strong, however, as they want to show progress on their decarbonisation targets and in many cases, have pressure from further up the supply chain to reduce emissions due to a company's Scope 3 goals.

The PPA market is expanding from industry forerunners such as large tech companies and energy-intensive users, into a broader mix of sectors, including retail, automotive, and transport, she said. Trio does have buyers that have accepted PPA "at cost" but a lot of its buyers are "large established entities that know that they need to pay to be green", said Melchor.

Her comments echo those of 3Degrees, who said earlier this month that shifting to renewable energy almost always comes with a cost to companies, which is particularly onerous for suppliers looking to cut their emissions in response to requests from big brands seeking to meet their Scope 3 emissions reduction goals.

PPA MARKET GROWTH

Globally, corporate PPAs for solar and wind energy amounted to 46 GW last year, up by 12% from 2022 - and are expected to increase further this year, according to BloombergNEF.

This is the seventh year of growth for corporate PPAs. The market has increased by an average of 33% since 2015, spurring hundreds of billions of dollars of investment into the shift to clean energy.

Agreements signed since 2008 amount to 198 GW of solar and wind, greater than the power generation capacity of countries including France, the UK, and South Korea.