



PRIVATE CAPITAL

The Winds of Change:

A Closer Look at European Renewable Energy Financing

April 19, 2024

Guy Haselmann, Head of Thought Leadership at MetLife Investment Management (MIM), recently sat down with Giulia Noli, Director in EMEA Infrastructure, to discuss the current environment for lending to European renewable energy projects.

Guy: Let's start at a high level. Give some perspective on the overall size of the global renewable energy space and the investment that is needed?

Giulia: In 2023, global investment in the energy transition reached \$1.8 trillion according to BloombergNEF (BNEF), which is 17% higher than 2022 and 89% above 2020.¹ Yet average annual investment of around \$4.8 trillion is needed between 2024 and 2030 to align with BNEF's Paris Agreement-aligned Net Zero Scenario.² Investment in new renewable energy projects alone accounted for \$623 billion in 2023, with around \$1.3 trillion per year needed between 2024 and 2030.³

Record levels of renewable energy investment in recent years can be traced back to several factors. Firstly, there's been a technological renaissance—maturing technologies and continuous innovation have driven down investment costs, attracting capital from more conservative investors into the sector. Policy makers have also been championing the cause, offering sustained support that bolsters the sector's appeal. Finally, green assets have caught the eye of investors. Especially for those dipping their toes in ESG investing, the renewable sector is a tempting choice. It's largely backed by governments and offers a straightforward path to contribute to the low carbon transition.

Guy: In Europe, where is new lending for renewable energy projects coming from?

Giulia: Over the last few years both large commercial and local specialised banks have gradually increased their exposure to the renewable sector, replacing a large portion of the equity coming from sponsors and corporates with more affordable debt solutions both at the project level and as balance sheet financing to large Independent Power Producers (IPPs) and developers. The large participation by banks in project level financing may be driven in some cases by an existing relationship with project sponsors. Also, for those banks issuing green bonds, renewables are a natural fit for use of proceeds. In general, high liquidity coupled with appetite for green assets has exacerbated competition among lenders.

Guy: If there is a large capacity gap to finance and liquidity to deploy, why do you anticipate a potential reduction in renewable deals to finance in the market?

Giulia: The current environment presents several challenges for developers in advancing their pipeline projects, as evidenced by project cancellations and undersubscribed renewable auctions across Europe and the UK. On the continent, this theme is prevalent in countries like Denmark, Germany, Italy, Spain, and France, where between 2018 and 2022, a significant portion of the auctioned capacity was not awarded.

While the EU and national governments are advocating for aggressive renewable penetration targets, their policies to streamline administrative procedures and facilitate new developments are lagging behind. The EU and national governments also need to acknowledge that supply chain issues and inflation may prevent developers from securing fixed-price engineering,

procurement, and construction (EPC) contracts with reasonable costs and timing. Developers need higher strike prices, higher visibility on grid connections and shorter development processes to lock in revenues under power purchase agreements (PPAs) and make projects economically viable. Otherwise, more projects risk cancellation.

A limited supply of new projects, coupled with higher interest rates reducing appetite for asset refinancing and M&A, could mean fewer financing opportunities. We expect this, in turn, to result in greater competition among lenders for those projects that do reach the "Ready-To-Build" phase with robust turnkey EPC contracts and solid PPA contracts.

Investors can support the energy transition without directly investing in renewable assets.

Guy: What do you see as the key challenges for institutional lending to renewables in the current market?

Giulia: One of the primary hurdles for lending to renewables today is pricing. The competitive nature of the market and the huge amount of liquidity available have led to thinner margins for lenders, who have been gradually taking on more risks, such as merchant risk or even some degree of development risk to try to differentiate themselves from others. Competition has also translated into weaker financing structures, which pose another challenge. As debt investors become more comfortable with the inherent risks of the traditional renewables space, financial covenants are being watered down and fully contracted projects are becoming less common. While this is good news for the equity, who need cheap funding to get more projects built quickly, these combined conditions make it more difficult for some debt providers to participate in the market.

Guy: Could you provide more detail?

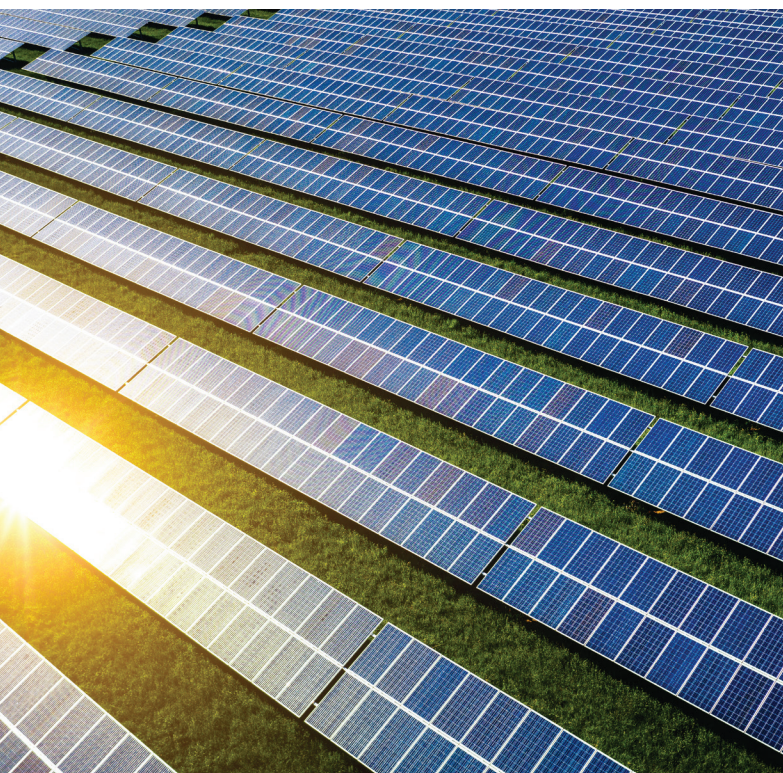
Giulia: In recent years, as mentioned, we've noticed considerable interest from European banks in large private renewable energy deals across all tenors and seniority levels. On top of the more traditional mini-perm structures, some banks are taking long term

exposure, which has historically been reserved for institutional lenders. One would normally expect a meaningful buffer built into interest coverage ratios for long-term project finance deals; however, ratios in the renewable sector have become increasingly tight despite the intermittent nature of the resources and the potential for market price volatility when the project entails merchant exposure.

Guy: What are some potential risks particularly given those current market conditions and added uncertainties from geopolitics and supply chain issues?

Giulia: Investing in renewables with weaker structures, particularly at a time of peak prices as seen in 2022, could lead to problems when prices normalise and long-term projections rebase. We've observed swift fluctuations in projected prices in highly stable countries, even from reputable and experienced third-party market experts. If these projected prices drop by 15-20% from one year to the next, the Debt Service Coverage Ratio (DSCR) headroom can be quickly depleted.

Furthermore, global supply chain issues have caused some projects under construction to reach or even exceed their long stop dates. This necessitates a renegotiation of contracts with all parties involved, from PPAs to financing terms, adding another layer of complexity and potential risk to renewable energy investments.



Guy: What features should investors not compromise on, in your opinion?

Giulia: In my opinion, investors shouldn't compromise on structure. Liquidity plays a crucial role to manage volatility in both revenues and costs. A substantial liquidity buffer is essential during both construction and operational phases to account for potential changes in key projection items. For instance, increased costs due to unforeseen external factors like higher snowfall could affect turbine maintenance costs. Regulatory changes such as the introduction of a cap or a tax on generation, or lower than forecasted prices, could also have a detrimental effect on projected cash flows.

Prudent debt sizing is another critical factor, which involves using conservative scenarios that incorporate historical production data, if available. Distribution lock ups and cash reserving mechanisms based on the inherent risks of the asset class are also important. Operating & maintenance reserves and minimum volume hedging requirements can help mitigate such risks.

Lastly, the experience of the sponsor or asset manager with the specific geographic area and technology is vital. They will be responsible for optimizing production across subsidized, contracted, and merchant stages, and their expertise can significantly influence the overall success of the investment.

Guy: Has MIM completed any renewable energy deals recently, despite these challenges?

Giulia: Yes, MIM has completed several renewable deals over the past two years, including deals with construction risk. We managed to secure strong structural features in these instances, which included reserving mechanisms, longstop dates, and the resetting of price scenarios. If more flexibility is required, we work closely with the equity sponsors through an amendment process. This approach allows us to maintain good control over the asset in the long term, while also enabling the sponsors to complete the necessary tasks for project completion.

Guy: What are some alternative investment opportunities in the energy sector that contribute to the energy transition, and how might they mitigate the inherent risks in renewable deals?

Giulia: There are ways investors can support the energy transition without directly investing in renewable assets. For instance, they can invest in

offshore wind service vessels, which are crucial to maintaining and operating offshore wind farms.

Energy storage is another promising area. In Europe, we are seeing an increasing number of financing opportunities particularly for hybrid projects involving collocation of battery storage, which pose fewer challenges than standalone battery storage deals that often rely on energy arbitrage strategies.

Investment can also be directed toward relieving physical constraints on further renewable penetration, such as by improving power grids and regional interconnections.

These alternative investment opportunities not only support the energy transition but also offer attractive returns for the level of risk involved. We foresee significant potential to deploy more capital in these areas in the future.

Sustainability Risks in Renewable Energy

While renewable energy is well aligned to sustainability agendas such as decarbonisation, reduction in air pollution and increasing access to modern energy systems, it still poses sector-specific ESG risks that should be considered. These risks vary based on the type of renewable energy involved—for example, the key risks associated with solar photovoltaic (PV) power differ from those posed by large scale hydropower, which can potentially have more significant adverse social and environmental impacts depending on how it is designed and managed. For example, large dam and

reservoirs disrupt water systems which can result in harmful effects on native flora and fauna, and may also require relocation of peoples. Moreover, greenhouse gases such as methane—which has roughly 30 times more global warming potential than carbon dioxide⁴—can form in large reservoirs due to decomposition of biomass in the water. By comparison, alternative forms of hydropower, such as run-of-the-river, carry fewer negative risks as a source of clean energy.

A useful resource for identifying material risks within the renewable energy sector is the Sustainable Accounting Standards Board (SASB) Materiality Map. At a high level, common factors for consideration include impact on biodiversity; due consultation and impact on local communities, including indigenous groups; labour policies; impact on the environment; water use; waste and hazardous materials management; supply chain management; materials sourcing; and efficiency, among others. For instance, taking the otherwise relatively straightforward technologies of solar PV energy and onshore wind, which compared to other renewables are less disruptive on the ecology and environment, they present higher human rights risk linked to the supply chain, which at times has been connected with forced labour practices. Even between solar PV energy and onshore wind, the risks to biodiversity, the environment, and land rights are greater for onshore wind than for solar PV energy.

While renewable energy remains a key technology behind net zero agendas, thoughtful assessment of environmental, social and governance risks is still required when analysing this popular sector to ensure sustainability risks are well managed into the future.

Endnotes

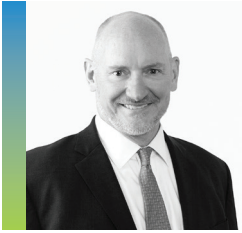
¹ Source: BloombergNEF “Energy Transition Investment Trends 2024”

² *ibid*

³ *ibid*

⁴ [Understanding Global Warming Potentials | US EPA](#)

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