

## Commentary

# 2024 Global Project Finance Outlook: Essential Digital Infrastructure Powers Up; Renewable Energy Needs More Juice

**Morningstar DBRS**

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In 2024, we believe the global project finance sector will stay largely unscathed from the slowing economy and elevated interest rate level. In 2024, the credit risk of this sector will remain stable because most project finance transactions are designed to insulate the cash flow and credit metrics from macroeconomic volatility under long-term revenue contracts with creditworthy counterparties.

However, it's a different story for renewable energy projects. We noticed that developing new renewable power projects, especially offshore wind projects, faced considerable challenges in the past year. In 2024, it will likely be another difficult year for the renewable sector as greenfield renewable projects are continuously and disproportionately affected by the higher cost of capital, spikes in the input material costs, the long permitting process, and uncertainty of government policy. These factors, however, will not have a direct impact on the credit quality of renewable projects at the operating stage. In the coming years, we also believe the transition to renewable energy will not be easy and requires an all-in approach of adopting a broad portfolio of diversified energy technologies. Any abrupt change to the existing energy infrastructure may elevate the transition risk.

As project finance extends beyond traditional power generation, the growth of essential digital infrastructure was a bright spot in 2023. The investment in data centres and fibre optics will continue to accelerate in 2024, which is further fueled by the heightened connectivity needs with the coming age of generative artificial intelligence (AI). Telecommunications (telecom) towers, by contrast, are likely to face a delay in deployment as end users have been slower to adopt 5G networks than expected. However, telecom operators will likely continue to monetize and spin off portfolios of their telecom towers to unlock capital, which will generate demand for debt financing to support these transactions. We believe project finance will be an important vehicle to fuel such growth. Nonetheless, investors should be aware of some of the unique credit risks associated with the project financed digital infrastructure transactions.

### Overall Steady Credit Fundamentals with Emerging Credit Risk On the Horizon

In 2023, most of the contracted projects were insulated from macroeconomic volatility. As a result, the credit fundamentals of our rated project finance portfolio remained stable with a limited number of positive or negative credit rating actions. Having said that, a few of our rated wind projects experienced low wind resources and increasing operating costs in 2023, although we did not take negative credit rating actions because the cash flow variability of these underperforming wind projects was still within the historically normal band of volatility. In 2024, we expect the overall stable trend of our rated project finance portfolio will continue as a majority of the rated transactions are contracted, with no direct exposure to market volatility, so the underlying cash flows will be stable. With the majority of the

projects' interest rates being fixed, we expect the main credit metrics, such as the debt service coverage ratio, to stay stable this year. Any positive or negative credit rating actions will likely be triggered by the idiosyncrasy of individual projects, as opposed to market volatility.

Notwithstanding the forgoing, we anticipate that new risks will likely emerge in the coming years as new asset classes other than traditional power projects are brought into the project finance universe. Some of the newer transactions, such as data centre projects, feature shorter debt tenor and a partially amortizing debt profile, which introduces refinancing risk. The technology risk of nascent renewable assets such as battery storage, green hydrogen, or carbon capture and storage projects will become a key consideration for future credit analysis. As sponsors explore ways to finance renewables on merchant power markets, the volatility of power prices will pose a significant challenge in determining the sustainability of key credit metrics for such transactions. Furthermore, as the boundary between corporate and project finance of newer asset classes becomes blurred, a comprehensive legal and structural risk assessment will become key to understand the overall credit risk of a project with a complex transaction structure.

### **Greenfield Renewable Power Projects Under Greater Scrutiny**

In 2023, greenfield renewable projects, especially onshore/offshore wind power projects, faced significant hurdles. Major European energy firms—including Ørsted (not rated by Morningstar DBRS), Equinor (not rated by Morningstar DBRS), BP p.l.c. (rated "A" with a Stable trend by Morningstar DBRS), and Vattenfall AB (not rated by Morningstar DBRS)—had to cancel their large-scale to-be-built offshore wind projects as they were no longer economically viable under the existing power purchase agreements. Siemens Energy had to seek a loan guarantee by the German government for approximately EUR 7.5 billion because of the deep losses in its wind power business.

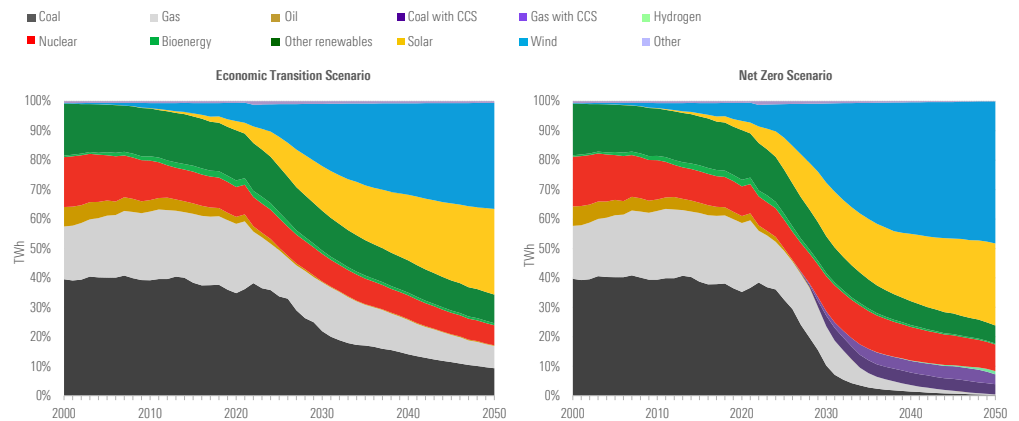
We expect these difficulties will continue in 2024. Higher funding and material costs, driven by inflation and supply chain bottlenecks, have elevated the cost of renewables, especially wind projects, to historically high levels after gradual declines over a decade prior to 2023. This, coupled with the long construction duration and uncertainty of governmental policy, will continue to drag the sector in the near term. The construction risk of building large-scale renewables, especially offshore wind projects, is likely to stay elevated unless there is more cost certainty. We believe governments will have no choice but to provide further policy support to incentivize sponsors/developers to build more renewable projects in the long run as these projects are vital for governments across the globe to achieve their climate goals. In fact, the British government already promised to significantly hike its contract for different auction prices in 2024 for offshore wind projects after its September 2023 auction failed to attract any successful bidder.

For the existing and operational renewable projects, there will be no material increase to their credit risks as the technology has proven to be mature over time, the interest rates are fixed, and cost inflation is largely mitigated. There may be increasing opportunities for sponsors to repower their operational renewable projects so that the offtakers can extend the existing power purchase agreements, given the high benefit-to-cost ratio of utilizing the existing facilities to continue generating renewable power.

### All-In Approach to Energy Transition

The world is in the midst of transitioning away from a fossil-fuel based economy to a renewable-powered one. We believe, however, the energy transition is a long journey and the sailing will not be smooth, given the integration risk of adding variable renewable generation to the existing electricity grid, the technology risk of the emerging technologies, the unpredictable electricity demand growth with the continuing adoption of electric vehicles, etc. We believe a comprehensive and balanced strategy will be key to reduce the transition risk. An all hands on deck strategy should include (1) continuing build-outs of mature renewables such as wind, solar, and hydro power projects; (2) mainstreaming emerging technologies such as green hydrogen, battery energy storage systems, carbon capture and storage, AI-powered smart grids, etc; (3) renewing policy support to build zero-emissions nuclear power plants including small modular reactors; and (4) becoming flexible in phasing out fossil-fuel power generation, which means natural gas-powered plants with smaller carbon footprints should still play an important role during the long journey to fully transitioning to renewables.

**Exhibit 1** Energy Generation Mix for Economic Transition Scenario and Net Zero Scenario by 2050



TWh=Terawatt hours. CCS=Carbon capture system.  
Source: Bloomberg New Energy Finance.

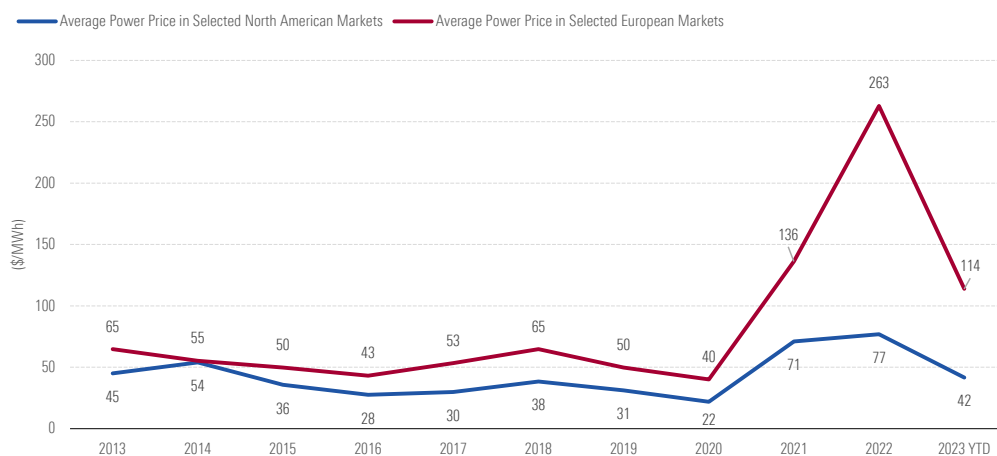
We also believe that project finance can and will play a key role in meeting the needs of the energy transition because the upfront capital costs of building these projects are usually high, while the operating and maintenance risk and costs are relatively low. In 2024, project finance for some emerging technologies, such as battery storage systems, may become mainstream, with the right transaction structure and supportive revenue arrangement that mitigate the key credit risks. Project finance for pioneering technologies such as carbon capture and storage and green hydrogen may still have a long road ahead as the technology risk is still quite high for the time being.

### Continuing Volatility of Merchant Power Projects

In 2024, we expect European and North American merchant power prices will continue to bifurcate as natural gas prices, a key driver to power prices, continue to diverge in these two locations. The merchant

power prices will likely stay subdued in North America while riding high in Europe. In 2023, the average price of key North American wholesale power markets saw prices decline significantly to a 10-year historical average of below \$50/megawatt hour (MWh) from the high levels experienced in 2022, driven by the falling natural gas prices amid robust supply and very moderate demand growth. In contrast, the average price of key European wholesale power markets stayed elevated at above \$100/MWh in most jurisdictions as continental Europe had to continue importing expensive liquified natural gas for energy consumption by weaning off its reliance on cheap supply from Russia after the Russia-Ukraine war.

**Exhibit 2** Historical Comparison of Average Wholesale Power Prices of Selected Key North American and European Markets



Note: The selected North American wholesale power markets include ISO New England, New York Independent System Operator, PJM Interconnection, and Electric Reliability Council of Texas; the selected jurisdictions of European wholesale power markets include France, Germany, Great Britain, Italy, Spain, and Switzerland.

Sources: Bloomberg New Energy Finance, Enel's Energy Market Insights: November 2023, and Morningstar DBRS.

Notwithstanding the different pricing curves, we believe merchant power projects are inherently riskier because of unpredictable natural gas prices and load growth, the increasing variability of grid stability as a result of renewable generation, increasingly volatile weather patterns, etc. The current power price advantage in Europe does not necessarily mean it can sustain larger project debt amounts with the high volatility of merchant power prices. The creditworthiness of merchant power projects will have to be based on conservative assumptions of long-term power price projections amid other factors. Having said that, we also believe merchant renewable power generation has a competitive advantage over merchant thermal projects as the input cost is close to nil. As countries shift away from a fossil-fuel economy, merchant renewable projects (solar, wind, and hydro power), if well structured, may gain a solid footing, especially in European countries, with more favourable power supply and demand fundamentals and supportive government policies.

**Data Centers: Focus on Interest Rate Environment and AI Requirements**

Data centres represent the most visible of the digital infrastructure assets that can be assessed under a project finance approach. Our rated data centres generally showed good results in 2023 with indexed

lease rates benefitting from the higher inflation rate environment; this continues to be offset by uncertainty around refinance interest rates in three to five years where market projections around these rates remain elevated, resulting in Negative trends on some of our credit ratings despite their good performance through the year. We note higher interest rates at the time of refinance can result in a lower ascribed credit quality of the refinance and may affect the credit rating of the outstanding debt since the refinance risk is a consideration of the current credit rating. Over the course of 2024, we expect the refinance interest rate risk will become more clear, and trends may return to Stable.

The digital infrastructure space also saw a growing focus on AI in 2023, affecting data centres as the capital cost to construct a new facility increases to meet the high power and processing requirements demanded by AI. As a result, we saw increased interest in data centre construction credit ratings through the year and expect this trend to continue in 2024 as higher capital costs drive the need for financing to support development. Conversely, as the sector continues to build out, some new lease contracts are beginning to show more flexibility for offtakers and lessors to exit a lease arrangement if business circumstances shift. This may begin to affect the creditworthiness of such data centre financings as a significant part of the credit assessment is on the likelihood of leases being renewed at their renewal points. We will monitor this trend closely in 2024.

### **Fibre Optic Transactions Gain Ground in Project Finance**

Similar to the increased demand for data centres, the digitization of the global economy will continue to drive investments in fibre optic networks. These networks provide several advantages over legacy data transmission technologies, such as higher bandwidth, significantly higher speed, longer transmission distances, and greater reliability. We acknowledge that the fibre optic network industry is currently in its growth phase, and consumers will gradually transition (the ramp-up period) to utilizing fibre optic networks as they build up and densify, which will require continued regulatory and policy support. Fibre optic networks assessed under our essential digital infrastructure methodology, a project finance-oriented methodology, are typically noncompeting networks (monopolistic or oligopolistic networks) serving a specific jurisdiction with long-term contracts in a supportive policy and regulatory environment. The key differentiating factor for digital infrastructure credit ratings is the risk of shorter-term counterparty contracts with more frequent renewal points. However, we generally consider this risk to be manageable because of the essentiality of the infrastructure/services, resulting in higher stickiness of the contracts at the renewal points and using more stringent financial metrics, as applicable.

In summary, we believe that, in 2024, the credit fundamentals of the global project finance sector will remain stable, the greenfield renewable power projects will face continuing challenges, and the volatility of the merchant power markets will remain. We expect the project financed essential digital infrastructure transactions to gather momentum, with the associated unique risks to be addressed.

Note:

All figures are in U.S. dollars unless otherwise noted.

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