

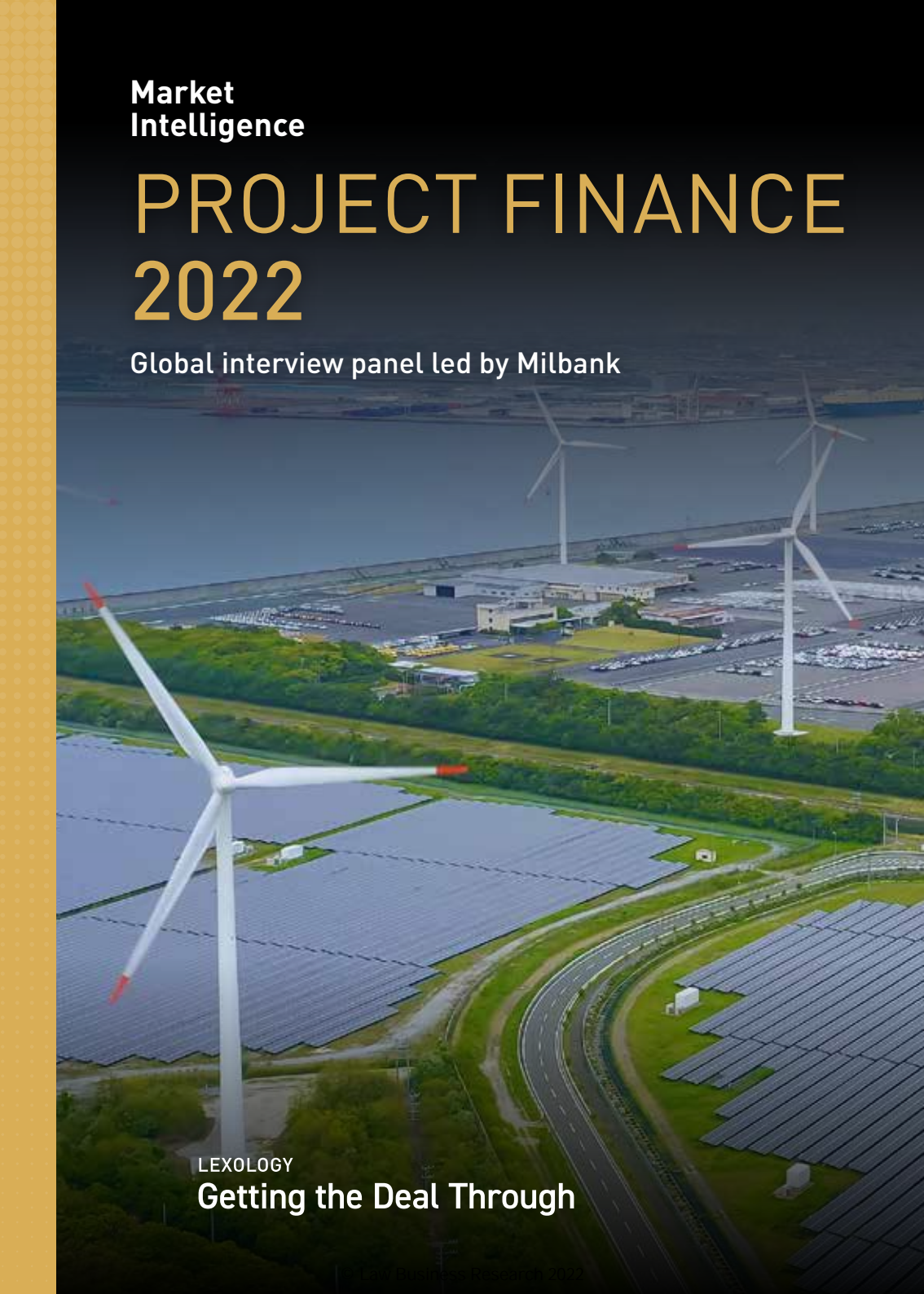
Market
Intelligence

PROJECT FINANCE 2022

Global interview panel led by Milbank

LEXOLOGY

Getting the Deal Through



Publisher

Edward Costelloe
edward.costelloe@lbresearch.com

Subscriptions

Claire Bagnall
claire.bagnall@lbresearch.com

Head of business development

Adam Sargent
adam.sargent@gettingthedealthrough.com

Business development manager

Dan Brennan
dan.brennan@gettingthedealthrough.com

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Global Trends

Project, energy and infrastructure finance partner at Milbank LLP, Aled Davies, regularly represents sponsors, lenders and export credit agencies on the development and financing of, and acquisition of interests in, large-scale infrastructure and energy projects throughout the world. His experience includes advising on complex asset and limited recourse financings, and tax leasing of large vessels as well as on borrowing-base and receivables financings. Aled has been recognised over consecutive years as a Band 1 and leading lawyer by *Chambers and Partners* and *The Legal 500*. He is included in *Euromoney's* list of top 35 project finance lawyers in the world and listed as one of the top project finance lawyers in the world by *Who's Who Legal*.

Tokyo-based associate Anthony Scott is a member of the Milbank's global project, energy and infrastructure finance group. Anthony has extensive experience advising clients on major project financings, particularly in the conventional and renewable power, petrochemicals, oil and gas, mining and infrastructure sectors throughout Asia and globally.

Dan Miyagishi is an associate in the Tokyo office and a member of the firm's global project, energy and infrastructure finance group.

A snapshot of 2021

The year 2021 saw the covid-19 pandemic entering its second year with many people still working from home and trying to adjust to the new norm. While the presence of covid-19 continued to be felt in all aspects of both home and work life in 2021, as evidenced in the infrastructure space by the decrease in deal value and volume, we did witness some resilience in the project finance market with many significant project finance deals across a range of sectors nevertheless managing to close in 2021, including the US\$22.6 billion Area 1 Mozambique liquefied natural gas (LNG) liquefaction terminal project and the US\$3.9 billion Vineyard Offshore Wind Project. Most day-to-day business continued to be conducted virtually, but deal implementation and execution generally progressed at a quicker and more efficient pace than was the case in 2020 as participants became more accustomed to inhabiting a project finance virtual world. There was also a marked difference in levels of activity and the ability to get deals done in the US (domestic) market and Western Europe as compared with more developing economies (in the Middle East, Africa and Asia) where travel restrictions put the brakes on diligence and government interaction or momentum to push forward projects.

In terms of number of deals, renewable projects, in particular those in the offshore wind sector in Europe and the US, continued to grab the headlines, although 2021, like 2020, also witnessed some big-ticket oil and gas projects (under development for a number of years) finally achieving financial close. Surprisingly, project finance in the Middle East and North Africa (MENA) region saw an increase in terms of overall deal value (but not numbers) in 2021; perhaps the major reason being the Aramco oil pipeline infrastructure assets sale and the Abu Dhabi National Oil Company (ADNOC)'s Gas Pipelines Acquisition Bond Refinancing (as described in more detail in the Oil and gas section below).

So what were the trends that we saw in the project finance market over 2021?

Power

The year 2021 did not see any let-up in the pace of the transition from conventional power to renewables as corporates and financial institutions continued to seek to distance themselves from CO₂-producing projects and diversify their energy portfolios. The US was the torch bearer in 2021, as exemplified in particular by offshore wind (such as the US\$3.9 billion Vineyard Offshore Wind Project (800MW)). Although the offshore wind market in the US remains at a nascent stage with currently only three operating offshore wind projects to date, prospects for new offshore wind projects are encouraging, witnessed by the aforementioned Vineyard project, which is expected to be operational in 2023 and, more significantly, the announcement of certain renewable initiatives (including in the form of grants and financing



Aled Davies



Anthony Scott



Dan Miyagishi

“2021 did not see any let-up in the pace of the transition from conventional power to renewables.”

programmes) by the Biden administration and the passing of certain legislation such as the Infrastructure Investment and Jobs Act. The terms of such grants and financing programmes are, however, still to be developed but a number of new schemes are under the planning or implementation stage.

Asia too saw some activity. In addition to Taiwan, which successfully closed a number of deals in 2020, other countries in Asia with favourable wind resources have come up with innovative plans to explore offshore wind as a key renewable power source. The wind power sector in Vietnam is still in its early stages, but 3,000km of coastline and high wind speeds, coupled with the recent revisions to the feed-in tariff and power purchase agreement template, on paper at least demonstrate opportunities. The 144MW Lotus Onshore Wind Power Project, funded partially by the Asian Development Bank, achieved first drawdown in August 2021 and is currently the largest wind power project in Vietnam to be project-financed by international lenders. However, since some of the planned projects are significant in size and ambitious, it remains to be seen how forthcoming government support will be to assist with the swift implementation of such projects. The wave of offshore wind projects in Japan has begun to materialise based on the offshore wind promotion law that came into effect in April 2019. For example, following Marubeni's first large-scale offshore wind project in Japan (the 140MW Akita Noshiro wind farms), a Mitsubishi Corporation-led consortium announced in December 2021 the development of a new offshore wind power generation project off the coast of Yurihonjo City, Akita Prefecture with an expected total installed capacity of 819MW. Korea's initiative to develop 12GW of offshore wind capacity with renewables forming at least 20 per cent of its energy mix by 2030, saw Macquarie's Green Investment Group and TotalEnergies close on the US\$4.9 billion Ulsan/Jindo 900MW offshore wind portfolio in January 2021.

Project finance in Europe in 2021 continued to be dominated by renewables with multibillion-dollar offshore wind projects reaching financial close: the US\$2.5 billion Courseulles-Sur-Mer (450MW) in France, the US\$2.4 billion Codling OffShore Wind Farm (1,500MW) in Ireland and the 257MW Arcadis Ost1 in Germany. The continuing ability of sponsor groups to close financings for such projects amidst covid-19 demonstrates the continuing appetite of banks for green loans, especially if the risks are mitigated by multilateral cover from the likes of the European Investment Bank. A number of floating offshore wind projects are now being awarded and we can anticipate this will be a continuing trend in Western Europe.

In addition to the US offshore wind market gradually taking off, the US was again very much at the forefront of the renewables sector in 2021 in terms of solar and onshore wind deals. The US renewable market appears to have continued to remain largely unaffected by the pandemic. Intersect Power's 310MW and 453MWh



battery storage Athos III Project in Riverside County, California and 415MW Radian solar project in Brown County, Texas are good examples of the booming renewables market in the US in 2021. The drivers behind much of the renewables activity in the US continue to be private equity, pension and other infrastructure funds as well as tax equity investors in the market trading assets periodically and developing innovative financing schemes to back their activities.

The MENA region also witnessed several significant independent power projects and independent water projects (IWPs), including Sudair solar, one of the world's largest single-contracted solar photovoltaics (PVs) and the largest in Saudi Arabia, which achieved financial close in August 2021, and the Yanbu 4 IWP, a first of its kind IWP that includes a water transmission pipeline, which reached financial close earlier in the year. In line with global trends, Saudi Arabia is aiming to achieve efficient energy production so as to contribute to the reduction of greenhouse gas emissions in the energy sector, and the Sudair solar project is one example of how it is trying to achieve this goal.

Waste to energy (WtE) projects were also part of the energy mix in the MENA region in 2021, as exemplified by the Al Warsan 171MW biopower WtE project in

“Bright spots in the South East Asia power sector include a number of potential large-scale LNG to power projects that are still contemplated for the region.”

Dubai, which closed in June and received financing from the Japan Bank for International Cooperation and a group of commercial banks with Nippon Export Investment Insurance providing cover for the commercial bank debt. Al Warsan stands out for being the largest stand-alone WtE project in the world. Construction is expected to commence in 2023 and commercial operations in 2024.

In South East Asia, the action remained muted. The challenges of the covid-19 pandemic imposed travel restrictions, and governmental refocusing on priorities continued to hinder the implementation of transactions and the plans to bring new projects to market. Export credit agencies, commercial banks and Japanese trading houses continue to shun coal projects, which in turn contributed to a reduced deal flow in South East Asia. Bright spots in the South East Asia power sector include a number of potential large-scale LNG to power projects that are still contemplated for the region (eg, in Bangladesh and Vietnam) and expected to be active in 2022 (circumstances permitting) and the commencement of construction on the 145MW

Cirata Floating Photovoltaic Power Plant in Indonesia. The latter, once completed, will be the country's and South East Asia's largest floating PV plant.

Energy storage and battery

The emerging trend of energy storage projects is likely to continue as energy from renewable sources gradually replaces energy produced from coal and other thermal power resulting in the increasing need for energy storage projects as a reliable source of power to counteract the intermittent nature of renewable energy generation and to add efficiencies to the actual operation of renewable projects.

In the US, where there are two major energy or battery storage markets (namely, California and Hawaii), we saw a greater increase in 2021 in deployment for lithium-ion energy storage compared with all previous years combined. Federal investment tax credits played a role in contributing to this trend by helping to provide steady renewable power at cost-effective prices. Some examples of market participants taking advantage of this benefit include Goldman Sachs Renewable Partner's Slate Project, Clearway Energy Group's Mililani I Project and Waiawa Solar Power in Hawaii, and the Daggett 3 Project in California.

In Europe, Semcorp Industries announced in December 2021 that its wholly owned subsidiary, Semcorp Energy UK, intended to build Europe's largest battery energy storage system to help the UK achieve its 'Net Zero' target (ie, 100 per cent reduction in greenhouse gas emissions in the UK by 2050). This would, along with Swedish battery developer Northvolt's Ett lithium-ion battery plant in northern Sweden, strengthen Europe's challenge to the current status quo of battery manufacturing being concentrated in Asia among a few large suppliers such as LG Chem and Panasonic.

Oil and gas

The biggest challenge that the industry faces relates to the willingness of financial institutions and investors to participate in the sector as part of the global ambition to achieve net zero carbon emissions combined with the energy transition movement. Similar to the stance towards coal, many banks and government financial institutions are reluctant to participate in the oil and gas sector, and the view towards LNG playing a key role in energy transition seems mixed. Having said that, the oil and gas sector (if one expands it to include LNG projects) boasts (albeit a deal that has been under development for a number of years) the biggest infrastructure deal in 2021, namely the US\$22.6 billion Area 1 Mozambique LNG liquefaction terminal project, which was completed by a consortium comprising, among others, TotalEnergies and Mitsui & Co. The first half of 2021 did, however, see activity in financing for existing oil and gas infrastructure, mainly due to M&A and capital market deals.

Some high-value deals did in fact reach financial close in 2021, including the US\$12.6 billion EIG Global Energy Partners' and Mubadala's acquisition of a 49 per cent interest in Saudi Aramco's subsidiary, Aramco Oil Pipelines Company. These deals reflect a continuation of the trend set in 2020 whereby oil and gas majors sell stakes in their infrastructure assets associated with their production assets to yield investors, thereby releasing capital to spend on new assets.

The year 2021 mirrored the prior year in that it was a busy one for the capital markets in terms of project financings or refinancings. Noteworthy examples in the oil and gas sector were Qatar Petroleum (QP)'s US\$12.5 billion bond facility, which was established to fund QP's growth plans (in particular, the North Field expansion projects) over the next few years, and ADNOC's US\$3.9 billion Gas Pipelines Acquisition Bond Refinancing. It is worth noting that investors worldwide are coming to rely increasingly on bond markets for corporate purposes to refinance existing indebtedness to secure better financing terms or to develop portfolios.

LNG

The LNG sector was relatively quiet in 2021 from the perspective of new project finance deal flow, and that applies to both the upstream and downstream ends of the business. To an extent, the upstream can be seen as having continued a period of consolidation that may have been initiated by prior lows in energy prices, a need to rationalise costs and points of oversupply in the LNG market. These challenges have been compounded by the difficulty in putting in place long-term contractual structures required for the project financing of capital-intensive projects in a broad energy market that is undergoing such fundamental changes that it may be difficult to predict with sufficient precision.

Some of the exact same factors, from pricing to relative merits in particulate and carbon reduction, have provided a corresponding impetus to downstream projects, with LNG import and LNG-to-power solutions inching forward in a number of South East Asian countries. Some of these were always likely to be slower burn given the key role being played by national and provincial governments in planning for such a massive infrastructure build-out, and the process does not appear to have been helped by the wave of Delta variant that prevented face-to-face meetings so critical to pushing deals through.

Extraneous factors are constantly shifting though and price lows turned quickly to price spikes (in LNG, at the end of 2021 and start of 2022 as Asian importers scrambled to cover a cold snap and supply constraints, and sought to fill storage levels sufficiently to avoid a repeat) as well as a more generally buoyant landscape in energy pricing as the globe has somewhat moved into a post-lockdown recovery. Upstream LNG liquefaction projects that may have been on hold appear now to be



gearing up. While the pricing may not be as attractive as it was for the downstream LNG import and regasification projects, many of the structural issues promoting LNG as a fuel source for power generation remain (varying from a need for gas supplies to replace dwindling domestic resources, to the needs to expand power generation generally to keep up with demand and to do so in a manner that satisfies particulate and carbon constraints).

We think the next phase for both upstream LNG production and downstream LNG regasification will be an exciting space to be involved in, as projects structure to overcome the uncertainties of the energy transition, as they accommodate the additional flexibility required to engage with far more heterogeneous downstream LNG importers (and the integrated arrangements with (often state owned) power utilities), and as they strive to present LNG as part of the solution to environmental concerns. Carbon-neutral cargoes became an increasingly common phenomenon in 2021, with several dozen traded, and we can expect this to be a key component as the sector adapts.

New guidance achieved in Glasgow on trading of carbon credits will likely prove useful in making carbon offsets more readily available to the sector, although the

“The effect of the covid-19 pandemic on deal value and volume in the transport sector lingered in 2021.”

winners are likely to be those projects that can also differentiate themselves with a compelling (sufficiently transparent) audit showing a genuine reduction or efficiencies in greenhouse gas emissions from well head to delivery.

In any case, geopolitical tensions may well continue to support LNG as a necessary energy source as buyers and their governments consider anew their security of supply.

Transport

The effect of the covid-19 pandemic on deal value and volume in the transport sector lingered in 2021, although we did witness some activity in the road sector towards the end of the year, as demonstrated by the closing of the biggest private-public partnership deal in the Asia-Pacific region in September 2021 – San Miguel Corporation’s US\$1.9 billion Pasig River Expressway. We also saw some activity in Latin America in 3Q 2022 by way of the US\$682 million Piracicaba-Panorama Toll Road Expansion (1273KM) in Brazil and the US\$752 million Rio Magdalena 2 Highway (144KM) in Colombia. Key points of interest in the transport space in 2021 were the termination by the UK government of its private finance initiative

model and the revamp by the Welsh government of its Welsh Mutual Investment Model. Transport-related M&A activity remained at a stable level throughout 2021. Alstom, for example, acquired Bombardier Transportation for US\$7.1 billion in a bid to tap into the North European and Chinese markets. Another project that bucked the trend of the otherwise depressed level of transportation sector activity in 2021 was the New Istanbul Airport Refinancing, which enabled airport operator IGA to refinance its €5.8 billion existing loans to achieve lower financing costs.

Mining

While certain sectors, such as renewables and infrastructure finance, demonstrated their resilience in 2021 notwithstanding that the covid-19 pandemic had already entered its second year, the mining sector has yet to recover to pre-pandemic levels in terms of transaction volume and value. In early 2020, when economies worldwide began shutting down, mine site operations came to a halt across the world, supply chains were disrupted and global demand for metals, notably from China, declined.

There was some glimmer of hope in 2021, however, as certain mining operations that had previously been in shutdown mode resumed operations. One such example was Ambatovy, a large-tonnage nickel and cobalt mining enterprise located in Madagascar, notable for being the largest ever foreign investment in Madagascar and one of the largest in sub-Saharan Africa, which resumed operations in March 2021. Ambatovy produces high-grade nickel and cobalt briquettes that are used, among other things, in EV batteries.

While much of the mine finance activity in 2021 focused on restructurings or other fundraising activity aimed at ensuring that mining companies could weather the pandemic storm, some mining activities in 2021 began to show signs of recovery from the pandemic thanks to the strong rebound in metal prices following the price falls induced by the global pandemic in the first quarter of 2020. One example of this renewed optimism in the mining sector was the achievement of financial close on the US\$3.7 billion Malmyzh Copper-Gold Porphyry Mine and Ore Processing Plant in Russia.

In terms of metal prices, many returned to pre-pandemic levels in 2021 with the prices of gold and copper continuing their upward trend in 2021. In the case of the price of copper, which is generally regarded as a barometer for the global economy, it recorded an all-time high of US\$10,512 per metric ton in May 2021, marking a 130 per cent growth since March 2020. In the case of the price of gold, it skyrocketed during the summer of 2020, briefly rising above US\$2,000 an ounce, and this bullish sentiment continued throughout 2021 due to concerns about whether the impact of the pandemic would abate in 2021. The hike in the price of copper in 2021 was driven primarily by high demand from China and peoples' optimistic projection

of the nascent global economic recovery backed by the rollouts of the covid-19 vaccines. Analysts are predicting that prices will stabilise with supplies starting to rise again in 2022. It is generally agreed, however, that price volatility will continue if the covid-19 pandemic and issues stemming from the supply chain remain a major factor in daily exchange movements.

As 2021 came to an end, the outlook for battery metals (eg, lithium, cobalt, zinc and graphite) became particularly optimistic. The market for such commodities is principally driven by the demand for batteries in EVs, energy storage and electronic devices – this commodity-specific demand reflects the current trend of the global energy transition and a general shift towards sustainability. Despite the short-term projected decline in global EV sales from pre-pandemic forecasts, and the disruption in battery manufacturing capacity, demand for battery metals is expected to rise exponentially in the future.

As noted earlier in this chapter, in the case of renewable energy, battery storage is now more frequently integrated with renewable energy projects as it allows energy generated on, for example, wind and solar farms to be stored prior to distribution. In addition to traditional renewable energy investors seeking to diversify their portfolios to include battery metals that will ultimately be used in renewable projects, as well as private equity funds and institutional investors seeking opportunities in battery metal projects by way of royalty or stream investments, major miners have also started seeking opportunities in the upstream battery metal space. For example, Rio Tinto Group agreed to acquire the Rincon Mining lithium project in Argentina for US\$825 million from Rincon Mining, a company owned by funds managed by the private equity group Sentient Equity Partners.

What can we expect in 2022?

With the rollout of the covid-19 vaccine, it seems that we may now have seen the worst of covid-19 in certain countries as each government takes its own unique measures to combat and move more towards living with the virus. Although we all hope for a covid-19 restriction-free 2022, including in the project finance space, this is subject to the lingering effect, and any unexpected further mutations of, the virus. However, even working on the premise that the effects of covid-19 will still be strongly felt in the latter half of 2022, we believe that project finance deals will continue to get done and hopefully with greater deal flow as compared to 2021 (notwithstanding rising costs of materials, labour and transportation) now that project finance participants are more accustomed to working and living with covid-19.

We do not see any signs of a reverse in the trend of the number of renewable projects and investment in clean technologies continuing to increase, especially in

the solar and offshore wind sectors. Project developers will, however, need to factor in rising costs of raw materials and hence construction costs due to the disruption to the global supply chain caused by covid-19. The prospects for the renewables sector in the US continue to be bright on account of the generous tax subsidies for offshore wind and the implementation of the Biden administration's Plan for a Clean Energy Revolution and Environmental Justice and Plan to Build a Modern, Sustainable Infrastructure and an Equitable Clean Energy Future, which set out his administration's plans for addressing climate change and increasing the use of clean energy.

As noted above, covid-19 has significantly disrupted the metals and minerals space, but we expect the demand for battery metals to continue to grow, mostly driven by the energy transition (a prime example of which is the UK's Net Zero target). It is reasonable to expect that the metals market (especially battery metals) will therefore need to expand to meet demand and ensure that EV battery manufacturers can achieve security of supply, thereby offering opportunities for non-traditional players as well as the more traditional players along the metals value chain.

Aled Davies

adavies@milbank.com

Anthony Scott

ascott@milbank.com

Dan Miyagishi

dmiyagishi@milbank.com

Milbank LLP

Tokyo

www.milbank.com

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