

Financing the transition

Investment | An increasing number of banks are turning away from fossil fuels and towards renewable energy financing. As Catherine Early reports, despite the chilling effect of the coronavirus pandemic on the industry, hopes are high that a tipping point is nearing

As renewable energy technologies have evolved over the years, they have become a compelling investment proposition. Global investments in new renewable power have grown from less than US\$50 million a year in 2004, to around \$US288 billion a year by 2018, according to a report by Bloomberg New Energy Finance and the UN Environment Programme.

Despite the fact that this was an 11% dip from the previous year, it was still triple the level of investment in coal- and gas-fired generation capacity combined, the study found. Solar PV and wind power accounted for 90% of total renewable power investments in 2018.

Emerging and developing markets, in particular China, have been attracting most of the renewable investments since 2015, accounting for 63% of those in 2018. India, Brazil, Mexico, South Africa and Chile have also seen sizeable chunks of financing, according to the report.

But despite these finance surges, there is still a vast gap between what is being supplied and what is needed. In January, the International Renewable Energy Agency (IRENA) stated that annual investment in renewables needed to reach US\$750 billion to meet the goal of the Paris Agreement to aim to limit temperature rises to 1.5C compared with pre-industrial levels.

Much of that could be met by redirecting planned fossil fuel investment, IRENA said, noting that close to US\$10 trillion of non-renewables related energy investments are planned to 2030. Fortunately, this shift has already started to happen, with the number of banks that have announced restrictions, exclusions or divestments from coal mining and/or coal-fired plants growing.

The Institute for Energy Economics and Financial Analysis (IEEFA) has tracked more than 120 banks, insurers and asset managers with more than US\$10 billion under management that have made this move. Two of the most notable in recent

months are the European Investment Bank, which in November announced a decision to align all its policies with the Paris targets, phasing out fossil fuel funding by the end of 2021 and new financing for renewables of US\$1.6 billion.

Then in January, asset management giant Blackrock announced that it was to realign its investments with sustainability, and halt support for coal projects. In May, Australian bank Westpac said it was to phase out coal investments by 2030 and provide AU\$3.5 billion of new lending to climate change solutions over the next three years.

This trend has been significant, explains Tim Buckley, IEEFA's director of energy finance studies, since once these institutions make such policies, they tend to tighten them up consistently to exclude more activities, for example, investment in Arctic drilling and tar sands, and simultaneously shift sizeable chunks of lending to more sustainable assets, he says.

"There is evidence that it is starting to come through to renewables," Buckley says. For example, Standard Chartered bank announced its first coal exclusion policy in 2016, and in February 2020 then launched US\$35 billion of project financing, advisory and debt structuring services for solar and wind projects.

The shift is complicated by the value of renewable energy technology investments, which tend to be dwarfed by those needed for fossil fuel plants, meaning that they were struggling to find alternatives to which to allocate their funds, he explains. But banks were tending not to find the opportunities because they had not been actively pursuing them, he says.

"Now that they're looking, it's interesting how opportunities are emerging. It's only with the banks, investors and insurers promoting their sustainable lending criteria that projects are coming to the fore," he says.

However, Raj Prabhu, chief executive at analysts Mercom Capital Group points out that the investment shift to renewables



Credit: 8minute Solar Energy

The shift of capital from fossil fuels to renewables is gathering pace

varies according to country: "Every market in every country in the world understands that fossil fuels are bad and that we need to switch to renewable energy. But what they're doing about it is different."

For example, some governments have renewable energy policies because they have to, but public pressure on politicians to switch to clean energy is lacking. Electricity from renewable generation is still more expensive than coal in places such as India, he says. "The tipping point there may come in the next two or three years when renewable energy is so cheap that they don't have to worry about intermittency," Prabhu says.

Global totals flowing specifically to solar from a variety of private sector sources reached US\$11.7 billion throughout 2019, a 20% jump on the US\$9.7 billion secured the year prior, according to data from Mercom. Venture capital funding reached US\$1.4 billion in 53 deals, a 1.6% increase compared to US\$1.3 billion in 65 deals in 2018, it noted. ReNew Power raised US\$300 million, while Hero Future Energies raised US\$150 million, and Avaada Energy US\$144 million.

Public market financing activity came to US\$2.5 billion in 18 deals, compared with US\$2.3 billion in 21 deals in 2018. Meanwhile, debt financing increased 29%,

with US\$7.8 billion in 46 deals compared with US\$6 billion raised in 53 deals in 2018. And large-scale project funding came to US\$16.1 billion in 152 deals in 2019 compared with US\$14.1 billion in 184 deals in 2018.

Last year's investment performance was largely down to the strength of the companies and the general market, according to Prabhu. "All of the solar publicly traded companies were doing well, and when that happens it becomes easier to sell shares or raise debt because your stock is up."

Green bonds surge

Alternative sources of finance are increasingly playing a role in funding renewable energy. Green bonds – fixed income securities whose proceeds are allocated to assets such as renewable energy – emerged in 2007, primarily driven by multilateral development banks.

These have now been joined by social and sustainability bonds, which fund a combination of environmental and social projects, and sustainability-linked instruments, which issue debt where the cost of capital is tied to a company achieving certain sustainability targets, such as renewable energy capacity. A newly emerging instrument is the transition bond, which carbon-intensive companies can issue to help them fund environmental improvements.

Though these financial instruments serve different purposes, all are experiencing growth, according to Moody's. The performance of green bonds has been particularly strong – the ratings agency tracked just over US\$260 billion issuance globally last year, compared with around US\$40 billion in 2015, says Matthew Kuchtyak, Moody's assistant vice president of environmental, social and governance (ESG).

"It's tough to get granular data until the funds are fully deployed, but roughly a third of investments in green bonds have gone to renewable energy over the past few years, primarily solar and wind, and hydro to a lesser extent," he says.

Issuance of green bonds is now dominated by big corporations and financial institutions, but they are also offered by public and private institutions, including governments and government agencies. European companies account for just below half of issuance, with North America and Asia-Pacific responsible for around a quarter each, says Kuchtyak.

Other emerging markets such as Latin America are becoming more active, and general support for sustainable policies will trickle down to increased green bond activity, Kuchtyak believes. This could take the form of defining market standards, governments encouraging public and private issuers to participate in the market, or multilateral development banks investing or providing credit enhancement, he says.

Another source of potential funding for renewable energy is that held by institutional investors – pension plans, insurance companies, sovereign wealth funds, foundations and endowments. IRENA estimates that this group manages around US\$85 trillion, an amount that has been growing by around 4-7% annually over the past decade.

Analysis by the agency of over 5,800 institutional investors and their renewable investments over the past two decades revealed that around 20% had made any investments into renewable energy via their funds, while only around 1% had invested directly in projects.

The number of renewable energy projects involving institutional investors has increased from three in 2009, to 73 in 2018, and 39 for the first two quarters of 2019, according to IRENA. However, while this source of investment was increasing, it represented only around 2% of total renewable project investments in 2018, it noted.

The agency concluded that there was significant potential to scale it up, but this would require incentivisation by policymakers, such as by mandating long-term ESG targets for such organisations and adopting analysis and disclosure of climate change risks. Institutional investors also needed training on the impacts of climate change, and their role in minimising the impacts, IRENA said.

Coronavirus caveat

Of course, all predictions for the short- to medium-term future for the financing of renewables now come with a significant caveat. The economic turmoil caused by the COVID-19 pandemic has only just begun, and commentators agree that it is too early to judge the full ramifications for renewables investment.

However, Bloomberg NEF (BNEF) has cut its global solar demand forecast for 2020 from 121-152GW to 108-143GW. If this transpires, it could make 2020 the first down year for solar capacity addition

since at least the 1980s, it said.

So far, banks do not appear to be raising the cost of finance as they did after the financial crisis, notes Angus McCrone, chief editor at BNEF. "Interest rates are pretty near to zero in developed countries anyway, so the question is what happens to the margins that banks charge on project finance, and we don't have a good indication of that at the moment," he says.

McCrone predicted that investment deals would slow down due to the difficulties of bringing people together and carrying out site visits, and that equity investors, bankers and developers might be more cautious. Green bond issuance is down so far this year, likely due to companies having more immediate priorities due to the pandemic, he adds.

"That may change in the coming months, though the delay of UN climate talks at COP26 may impact green bonds, as there's always been a rush to issue them just before climate discussions so that companies can demonstrate their green credentials," he says.

Moody's has also noted a 49% slump in green bond issuance in the first quarter of the year, and now anticipates that volumes will total US\$175-225 billion, down from its original US\$300 billion forecast. "I think that's more to do with some of the uncertainty in the financial markets that issuers are dealing with, rather than a long-term divergence from thinking about climate investments. Everything is slightly on pause right now, and that's leaking into the green bond market," Kuchtyak says.

Corporate funding in the solar sector, including venture capital, public market and debt financing, has also taken a blow in the first quarter of 2020, reports Prabhu. Totals from these sources came to US\$1.9 billion, 31% lower compared to the US\$2.8 billion raised in Q1 2019.

However, there were 12GW of solar project mergers and acquisition transactions in Q1 2020 compared with 6GW in Q1 2019, which proved that solar was a safe long-term bet, he says. In fact, Mercom has noted an increasing trend for oil and gas majors to buy solar projects, with just under 6.5GW bought in Q1 2020, compared with 4GW bought by investment firms.

"Oil and gas companies are seeing where the trends are – they have capital and they are increasingly making acquisitions in solar assets," Prabhu says.

Buckley predicts that the dramatic

Sovereign guarantees

In developing countries, the degree of investment risk is often associated with the country itself, or the energy off-taker, rather than the actual project. Such risks can include lack of creditworthiness of the buyer, or fears that the tax or legal environment may change.

In the past, investors have asked for sovereign guarantees, where governments guarantee payments in cases such as a state-owned enterprise buyer defaulting, changes in taxation or currency transfers becoming restricted.

However, these have become rarer in recent years as some countries lack the means to honour them, according to IRENA. There are alternatives, but these are not well known. For example, the agency points to initiatives to improve the creditworthiness of the off-taker, by recapitalising it, improving its management and operations, and ensuring that its revenues match its expenses so that it can invest in infrastructure.

Though this requires significant commitment and resources, several initiatives to achieve this exist in Africa, led by the World Bank, the African Development Bank and the Millennium Challenge Corporation.

falls in the price of oil and liquid natural gas caused by the twin crises of COVID-19 and the oil trade war between Saudi Arabia and Russia could prove a boon for renewables. Investments could increasingly flow towards clean energy as both oil and gas companies and the financial markets flee the volatility of fossil fuels.

"I think this will prove to be a pivot point for global finance to say that it cannot tolerate the volatility and ongoing wealth destruction in the fossil fuel sector, and will go and evaluate alternatives. That to me becomes a catalyst for investing in renewable energy infrastructure," he says.

Oil and gas companies have annual capital expenditure budgets of US\$150-200 billion, but they will now need to find alternatives for some of that, with the obvious option being clean energy. Shell, which has stated that it wants to become the world's biggest electricity company, has already pledged to shield its new energies division from spending cuts so that it is well positioned for the acceleration of the energy transition which it expects to follow the economic crisis.

Politicians, businesses, investors and campaigners around the world have called for post-pandemic economic stimulus plans to boost the clean energy transition. Members of the European Council have already identified the central role of the Green Deal in its Roadmap for Recovery from the COVID-19 pandemic.

Sean Kidney, chief executive of the Climate Bonds Initiative, says that green stimulus plans will benefit solar PV by incentivising investors to green their portfolios, especially if they use the new classification system for environmentally sustainable investments, which will formally exclude gas plants without carbon sequestration from the definition of a sustainable investment.

Up till now, gas companies have marketed themselves on the basis that governments can achieve their energy transition using gas, but they will no longer be able to do this, he says.

"The new European taxonomy has caused quite a significant stir in other countries – none have changed their policies yet, but they're now having discussions about what Europe has said and what that means for their climate targets," Kidney says.

Despite the short- to medium-term uncertainties caused by the pandemic, commentators remain optimistic that renewables will emerge healthy from the economic crisis, and that the financing gap will be narrowed.

"This year will probably be a bit of a lost year because of the pandemic, it all depends on how economies end up doing," Prabhu says. "But my personal opinion is that that the gap will close, it's just a matter of time." ■

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