The rise of green solar bonds?

Solar financing | Banks will be unable to fully finance solar on the scale envisaged in the transition to a low-carbon economy. Vicky Münzer-Jones and Stacey Giunta look at the role of solar bonds in bringing much needed capital to the sector



he commercial use of solar cells began in the 1970s and it was not until the late 1990s that efficiency levels have led to greater commercial use. Since then, the speed at which the technology has developed has made it difficult for some to keep up. Government regulators determining how to regulate a power generation revolution which is turning the old-fashioned, centralised power grid on its head; urban planners racing to adapt planning laws to rooftop solar systems; and (on a slightly smaller scale) my parents trying to choose which solar panels to cover the field next to my childhood home. Subsidies have come and, in some cases, gone or been cut as the price of the technology has shrunk. Solar is the cheapest, fastest-growing source of electricity in the world, with more money invested in new solar

energy plants last year than in any other power source. Perhaps, in part, this is due to its flexibility in being able to solve the energy consumption concerns of the masses...and my parents.

Against this fast-moving backdrop, the financial sector is also struggling to keep up as the types of solar installation they are requested to finance change in size, complexity, geography and infrastructure. So far, banks have picked up the largest proportion of the financing opportunities through loans, mainly secured. But banks will not be able to meet the funding requirements in the longer term and we are now starting to see greater use of solar bonds as a sub-set of the broader excitement being stirred up by green bonds.

SolarCity (now part of Tesla) has been amongst the biggest repeat issuers of

Scatec Solar has used green bonds to fund its international IPP activities solar bonds over the past four years and in 2017/18 significant issues of solar bonds have occurred across the world. For example, by Grupo T-Solar (Spain), China Singyes Solar Technologies (China – USD420m equivalent), Scatec Solar (Norway, but producing solar power in Europe, Africa, the Americas, Asia and the Middle-East), Azure Power (Mauritius, but funding projects in India – US\$500 million) and Sindicatum (Singapore, but funding projects in India – the first masala green bond and guaranteed by GuarantCo).

Bond investors tend to be more risk averse than banks, so it helps that solar seems to be 'coming of age'. The technologies have been tried and tested and the longer tenors of the guarantees afforded to the technology give greater confidence in the reliability of the projects. Ratings agencies such as Standard & Poor's have also recognised lower risks associated with the performance of solar assets as compared to other renewable energy assets [1]. However, not all of the bond issues listed above were labelled as "green bonds". This article looks at the characteristics of green bond transactions and whether the opportunities offered by them make a green label a worthwhile investment for a solar company.

Green bonds

Green bonds are any type of bond issued with the purpose of financing or refinancing green projects, including solar energy projects. As such, they offer the usual advantages of straight bonds, i.e. diversification of investor base, publicity, opportunity to structure innovative structures and solutions, improved liquidity, arbitrage of regulatory and tax treatment versus loans, etc. In order to be considered a green bond, an issuer simply has to label them as such. This self-labelling is usually (but not always) supported by an opinion of an independent third party which will look at the issuer and the bond against a set of green bond criteria. Bonds issued by companies whose sole business is solar energy generation (i.e. "pureplay" solar issuers) can fit within green solar bond eligibility criteria and therefore qualify as a green bond. It is also possible for green bonds to be issued by companies where only a part of their business is green and those involved in the solar supply chain, if such companies can link the proceeds to their green/solar product divisions.

As with straight bonds, there are different types of green bonds, any of which could be used to finance companies involved in solar power generation. These range from straight corporate bonds (the majority of solar bonds issued so far) through to green securitised bonds (issued by SolarCity/Tesla, Mosaic and Sunnova) and green sukuk (the first issued in 2017 by Tadau Energy).

Understandably, the development of green bonds as an investment category is coupled with the development of the green investor community, which has become more discerning and prescriptive. Self-labelling for some green investors can be problematic. In order to bring some certainty to the green bond market, the International Capital Markets Association published the Green Bond Principles (the GBP), last updated in June 2017.

The GBP are a set of voluntary guidelines "that recommend transparency and disclosure and promote integrity in the development of the Green Bond market by clarifying the approach for issuance of a Green Bond" [2]. Since their publication, governments (e.g. China and Indonesia) and bodies such as the Association of South East Asian Nations (ASEAN) have issued their own green bond guidelines along similar lines. An issuer wishing to issue a bond which is independently verified as green will need to select a set of guidelines to follow. The four core components of the GBP are use of proceeds, a process for project evaluation and selection of projects, management of proceeds and reporting.

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> The GBPs state that the proceeds of a green bond issue are used for green projects. Solar energy projects are eligible for classification as "green projects", so this component of the GBP should be handled easily by scrupulous solar issuers. A more rigorous requirement, however, is the tracking of proceeds while the green bonds are outstanding. Until the proceeds can be fully deployed in the financing of a solar project, the issuer must outline the investment decision-making process it follows in managing the undeployed funds. Investors may be updated (typically annually), by independent third parties where possible, as to how the proceeds are being used and managed until full allocation is reached, and as necessary thereafter in the event of material developments. The Azure Power bonds went as far as saying they might be redeemed if the proceeds were not spent on solar financing or refinancing within six months.

Second opinions given by an external, independent consultant or assessor can provide an additional level of comfort to investors who invest in green bonds. Various new companies have entered this business (e.g. Vigeo, DNV-GL, Sustainalytics, CICERO, Climate Bonds Initiative) as have some of the big four accountancy firms. These companies give an opinion that compliant bonds meet the particular green bond criteria the issuer has chosen to follow and are aligned with the definition of green bonds within those criteria. Different third-party entities can also provide other services to assist issuers, such as acting as a consultant to advise on the establishment of a green bond framework for a company; providing verification of a company's alignment with internal standards or claims made by it; or providing a green bond rating.

The providers of these services will charge fees based on commercial negotiations and there will be internal costs incurred by an issuer in establishing and complying with procedures designed to ensure that it meets its new green bond obligations. In addition, the Climate Bonds certification process incurs a certification fee equivalent to one tenth of a basis point of the bond principal (e.g. US\$5,000 on a US\$500 million issue). However, while not negligible, we would argue that issuers of solar bonds should not be put off by a perception that arranging for a bond to be labelled green is prohibitively expensive.

In terms of any additional effort incurred in adhering to the GBP, or other guidelines, in the bond documentation an issuer expects to enter, there is little extra work it will need to do other than with respect to disclosure. The issuer will need to state in its disclosure document for a public green bond issue to which green bond guidelines it will be aligned and draft a green bond framework which is appropriate for that issuer. In typical green bond issues, the joint lead managers support the company in designing its green bond framework in collaboration with the external consultants. It will set out what "green" means to the issuer (i.e. solar energy projects in this context) and measurable green targets and goals for how the money will be used and managed which can then be checked and/or monitored by the independent evaluator of the issue. Issuers often opt to include the framework as an annex to their public offer document and the GBP recommend public disclosure of external reviews as well, or at least an executive summary. These tend to be accessible via external websites, such as the Climate Bond Initiative's labelled green bond database, rather than being attached to the offering document.

Market practice has been not to include covenants in green bond documentation which would penalise an issuer for failing to use the proceeds of its green bond issue for green purposes. So, even if a company fails to meet the criteria for its use of proceeds it will not be a direct default. The level of disclosure in offer documents as to the green use of proceeds has therefore tended to be limited or broad in order to prevent indirect events of default as a result of misrepresentation. The non-prescriptive nature also helps to reduce the risk of reputational damage. However, it is difficult to imagine that a reputation could remain intact if an issuer were to be found spending the proceeds of its green bond on non-green projects, even if it publicly announced the change in its business.

As an example of the above light touch approach to disclosure, the Greenko prospectus gives reasonable detail as to the categories for which the proceeds will be used (refinancing existing indebtedness, paying transaction expenses and meeting operating and working capital requirements) and promises disclosure within a year as to the split of funds between those headings, but it finishes with a statement that there can be no assurance as to whether the proceeds will be used for eligible green projects or the characteristics of those projects.

As mentioned above, an advantage of a bond is a diversified investor pool. By labelling a bond green that potential pool broadens even further as another category of environmental, social and governance (ESG) investors becomes able to buy the bonds. The green label immediately attracts investors with an interest in green investments, including an increasing number that are limited by their investment criteria to being able to invest in green investment products only. Unique to green bonds are philanthropic investors, whose presence can reduce some of the commercial issues which might otherwise arise with respect to solar companies, such as a short business history. Green solar bonds tick a big green box on the investment criteria for many pension funds holding the money from environmentally conscious baby boomers (taking us back to my parents again).

There is also credit enhancement available to issuers of green bonds via guarantees supplied by multilateral financial institutions (e.g. the Credit Guarantee and Investment Facility established by ASEAN members, China, Japan, South Korea and the Asian Development Bank) or quasimultilateral (e.g. GuarantCo sponsored by development banks and agencies in the UK, Australia, the Netherlands, Sweden and Switzerland). These help to mitigate the impact which low credit ratings given to solar issuers with short business histories and operating in new markets can have on the interest rates payable by an issuer and the size of the issue.

The emergence of solar regulations and the positive influence of governments further support the development of green solar bonds. The Indian regulator has issued green bond requirements to help in raising funds in the renewable energy space [3] and the EU High-Level Expert Group on Sustainable Finance has released its Sustainability Taxonomy as a first attempt to provide a shared EU classification of sustainable activities applicable to all types of assets and capital allocation, including bonds [4] The Chinese Green Financial Task Force has published various suggestions for promoting green bonds, including possible regulatory capital and tax incentives. The Monetary Authority of Singapore has launched an incentive under which it agrees to pay up to \$\$100,000 of the costs of obtaining an independent review (although the conditions imposed means that it is difficult, if not impossible, to claim).

However, despite the above factors, there has been little, if any, evidence that green bonds enjoy better pricing than equivalent straight bonds. Although there has been some indication that secondary market pricing and liquidity has been stronger. Recent research published by NN Investment Partners [5] has shown that the average yield of green bonds is lower than non-green bonds. On average and over time, a green bond yield is 1.1 basis points lower than a non-green bond yield. The researchers put this down to several factors, including the dramatic increase in investor demand for green bonds over the last three years, but a limited number of issues; and green bonds being less volatile because ESG investors tend to buy to hold due to longer-term horizons and again a lack of alternative green bonds in the market.

If these trends continue, the pricing benefits for issuers must translate to the primary markets, thus cementing the appeal of a green label.

Outlook

The developed world is becoming greener by the day and the developing world is trying to put the brakes on the devastating environmental damage being caused by polluting industries and energy production. Governments, corporates, financial institutions and multilateral organisations, partnered by pressure groups such as the Climate Bonds Initiative, see green bonds as a public means of showing support for combatting climate change.

There may come a time when green bonds will not be required because all companies and projects have become green, but until then solar companies are well placed to obtain a green label with little additional expense or effort. Green solar bonds may not appear to be the most appealing financing mechanism in the immediate term, but longer term the striking development of the green solar bond market (which trends predict) will improve pricing in favour of issuers and do away with the need to artificially incentivise green bonds, in the same way as solar subsidies are increasingly unnecessary.

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