



## ASIA-PACIFIC ENERGY SECTOR UPDATE: FINANCING RENEWABLE ENERGY PROJECTS

Despite scepticism around climate change in certain countries in the region, we continue to see growing investment in renewable energy and carbon reduction technologies across the Asia Pacific.

Our current mandates include renewable energy projects across the renewable spectrum - solar, wind, biofuels, hydro and waste-to-energy and biomass - in various jurisdictions (some with favourable regulatory regimes and financial incentives for these industries and some without).<sup>1</sup>

With the Abbott Government reportedly issuing a draft Investment Mandate that requires the Clean Energy Finance Corporation (**CEFC**) to cease investment in wind farms and small-scale solar and focus its investment in emerging technologies, it's timely to revisit what financing options exist for the sector.<sup>2</sup>

### PROJECT FINANCE

In all jurisdictions, financing for greenfields projects is available from traditional sources - commercial banks, export credit agencies (**ECAs**, such as the Japan Bank for International Cooperation (**JBIC**) and Korea's Exim Bank (**KEXIM**)) and multilateral organisations (such as the World Bank and Asian Development Bank (**ADB**) (and potentially, soon, the Asian Infrastructure Investment Bank)).

The requirements for funding from these sources are typical of project finance transactions - appropriate risk allocation achieved through 'bankable' project documents with reputable suppliers and contractors, certainty of cash flows (through offtake arrangements, guaranteed feed-in tariffs and demand studies where banked on a merchant basis) and a stable regulatory environment.

### GREEN BONDS - ISSUED BY FINANCIERS

Some of these financiers issue "green bonds" to bank their renewable energy project pipeline. The purchasers of these products are sophisticated institutional investors (especially those funds seeking to sell 'ethical' or 'socially responsible' products). The "green bond" market was created in 2007 and has grown exponentially in recent years. By selling "green bonds" and attracting capital at a fixed yield, the relevant financiers are then able to on-lend the proceeds at more attractive pricing than relying on their traditionally higher "cost of funds".

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<sup>1</sup> For an analysis of the various regulatory regimes in Asia-Pacific, please refer to our capability statement "Renewable Energy", July 2015, [https://extranets.dlapiper.com.au/design\\_html/uploads/renewable\\_energy\\_capability\\_statement.pdf](https://extranets.dlapiper.com.au/design_html/uploads/renewable_energy_capability_statement.pdf).

<sup>2</sup> While this article focusses on the renewable energy sector in particular, we note that the green bond market is active across various sectors in funding green buildings, carbon reduction, energy efficiency and other technologies also.

The World Bank was a first mover having issued "green bonds" since 2008 to fund climate change projects. Since 2008, it has issued more than USD8.5 billion through 100 issuances in 18 countries.<sup>3</sup> The World Bank has supported a range of climate change projects and initiatives, including the "Sunshine Schools" roof-top solar project in Beijing and the development of geothermal power plants in Indonesia.<sup>4</sup>

The ADB has issued various bonds in order to fund various clean energy and climate change projects. Since 2010, it has raised over \$820m on the sale of "clean energy bonds" to retail investors. Recently, the ADB raised \$500 million from its inaugural "green bond" issuance in March 2015 which will direct funds into climate change initiatives.

ECAs such as Korea's KEXIM and Export-Import Bank of India have issued "green bonds" to support their investment in clean energy projects.

Australia has only recently joined in this "green bond" revolution. Westpac introduced "green bonds" to the Australian markets as a joint lead manager on a World Bank issuance of "Kangaroo Green Bonds" in May 2014. NAB moved in December 2014 with its first "green bond" being oversubscribed two times, raising \$300 million off a fixed coupon of 4%.<sup>5</sup> ANZ issued its own "green bond" in May 2015, raising \$600 million from an AA- rated, 5 year bond with a 3.25% yield.<sup>6</sup> ANZ has suggested 60% of the proceeds will be invested in wind and solar projects across the Asia-Pacific region, with the balance committed to green building

projects. It is promising, given the recent regulatory uncertainty in Australia, that the demand for these "green bond" products has remained strong. It also gives some comfort to sponsors of domestic projects that the commercial banks want to be funding renewable energy and that there are funds available for these projects.

## GREEN BONDS - ISSUED BY SPONSORS

The "green bond" also provides an interesting alternative for projects to access funds directly from sophisticated (or institutional) investors in the debt capital markets. If projects are of sufficient scale and the bond can be rated at investment grade, sponsors could raise debt capital from issuing "green bonds" themselves (with banks taking roles as bookrunners and underwriters). In order to be marketed as "green bonds" certain principles must also be met. While this approach would potentially have higher transaction costs in the short term, these would be offset by achieving a lower cost of funds overall and an ability to get long term debt at fixed rates. .

Of course, there are risks that would need to be overcome in order to achieve the required ratings for bonds to be attractive. In 2014, China's CGN Wind Energy Ltd issued a RMB1 billion (USD 163 million), five-year "Carbon Bond" at an interest rate of 5.65% in order to finance five wind energy projects in China.<sup>7</sup> Recently, Sunrun Inc. in the USA used its portfolio of residential solar assets to arise USD 111 million of "Solar-backed Notes" with a tenor of 30 years - some with a coupon of 4.4% rated A and some with a coupon of 5.38% rated BBB.<sup>8</sup> Since these bonds were backed by a portfolio of assets, concentration risk, for example, could be

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3 World Bank Green Bonds:  
<http://treasury.worldbank.org/cmd/htm/WorldBankGreenBonds.html> (accessed 14 July 2015).

4 World Bank Green Bonds:  
<http://treasury.worldbank.org/cmd/htm/MoreGreenProjects.html> (accessed 14 July 2015).

5 "NAB's green bonds swamped", 5 December 2014,  
[http://www.afrsmartinvestor.com.au/p/fix-income/nab\\_green\\_bonds\\_swamped\\_ueZ1siOHelOLAYn0yKO](http://www.afrsmartinvestor.com.au/p/fix-income/nab_green_bonds_swamped_ueZ1siOHelOLAYn0yKO) UHL (accessed 14 July 2015).

6 "Australian investors lap up ANZ green bonds", 28 May 2015,  
<http://www.businessspectator.com.au/news/2015/5/28/renewable-energy/australian-investors-lap-anz-green-bonds> (accessed 14 July 2015).

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7 "China Embraces its First Carbon-Linked Financial Product", 10 June 2014,  
[http://en.ce.cn/Insight/201406/10/t20140610\\_2951759.shtml](http://en.ce.cn/Insight/201406/10/t20140610_2951759.shtml) (accessed 14 July 2015).

8 "Recent Green Bonds: Toyota Hybrids, SunRun, Efficient Homes and Data Centers", 13 July 2015,  
[http://www.altenergystocks.com/archives/2015/07/recent\\_green\\_bonds\\_toyota\\_hybrids\\_sunrun\\_efficient\\_homes\\_and\\_data\\_centers.html](http://www.altenergystocks.com/archives/2015/07/recent_green_bonds_toyota_hybrids_sunrun_efficient_homes_and_data_centers.html) (accessed 14 July 2015).

overcome. Just this week, Xinjiang Goldwind Science and Technology began marketing China's first "green bond" to fund manufacturing of wind turbine generators.<sup>9</sup>

## ROLE OF GOVERNMENT AGENCIES IN AUSTRALIA

ARENA continues to invite applications for grant funding for emerging technologies and research and development within the sector. Until recently all grant funding for renewable energy generation projects had closed, however, ARENA has just published its updated General Funding Strategy and Investment Plan. From 1 August 2015, ARENA's grant funding will be facilitated through two programmes - the existing research and development programme and the "Advancing Renewables Programme". The Advancing Renewables Programme includes a \$100 million programme for large-scale solar PV projects.<sup>10</sup> The large scale solar grants are intended to be facilitated through a solar auction opening in September 2015 for grid-connected projects between 10 MW and 50 MW (DC). ARENA grants are typically given in exchange for information generated from the projects through knowledge sharing performance indicators.

The CEFC retains its mandate to provide finance on commercial terms to renewable energy and energy efficiency projects. CEFC offers funding in a variety of ways—project finance for greenfield projects, corporate finance across portfolio assets, 'bill-finance' for energy efficiency projects—on a bilateral basis and club basis with other commercial banks and, for some of their more innovative products, with energy sector partners.

The details of this week's draft Investment Mandate to the CEFC has not yet been published

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<sup>9</sup> "Wind power firm to issue China's first green bond". 16 July 2015, <http://af.reuters.com/article/energyOilNews/idAFL4N0ZW1AY20150716> (accessed 17 July 2015).  
<sup>10</sup> as well as funding renewables for use in industrial processes and grid-integration and off grid projects - "ARENA announces new priorities", 14 July 2015, <http://arena.gov.au/media/arena-announces-new-priorities/> (accessed 15 July 2015).

in order to assess the implications for CEFC finance for domestic wind and roof-top solar projects.

## OTHER RECENT DEVELOPMENTS

While the broader ramifications for investment in Australia in renewable energy as a result of current Government policy cannot truly be assessed, it appears the industry will certainly continue to grow and look for investment and incentives wherever available. In addition to the ARENA solar auction, domestic generators and retailers are offering power purchase agreements to renewable generators as a primary offset instrument.

Of course, the renewable industry will also continue to look to other countries within Asia-Pacific where the regulatory regime and incentives are attractive. In the Philippines, the feed-in tariff (FiT) regime has been extended - with lower FiT rates to facilitate more projects and greater capacity.<sup>11</sup> For example, the FiT for solar PV has already been extended from 50MW of capacity to 500MW, with industry groups lobbying for even further extensions.<sup>12</sup> In Thailand, a reverse auction for 800 MW of renewable energy will launch on 29 July to assist it in achieving its renewable energy target of 20% of capacity over the next 20 years.<sup>13</sup>

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<sup>11</sup> "Energy Regulatory Commission initiates review of lower FIT rate for wind projects", 9 July 2015, <http://www.bworldonline.com/content.php?section=Economy&title=energy-regulatory-commission-initiates-review-of-lower-fit-rate-for-wind-projects&id=111332> (accessed 15 July 2015).  
<sup>12</sup> "Call for Philippines to quadruple 500 MW FIT ceiling", 13 July 2015, [http://www.pv-tech.org/news/call\\_for\\_philippines\\_to\\_quadruple\\_500mw\\_fit\\_ceiling](http://www.pv-tech.org/news/call_for_philippines_to_quadruple_500mw_fit_ceiling) (accessed 15 July 2015).  
<sup>13</sup> "Thailand to open bids for 800 MW renewable energy in late July", 9 July 2015, <http://www.theedgemarkets.com/my/article/thailand-open-bids-800-mw-renewable-energy-late-july> (accessed 15 July 2015).

## WHAT CAN WE DO FOR YOU?

We advise across the range of stakeholders in the renewable energy sector in the Asia Pacific - including sponsors, lenders and contractors.<sup>14</sup>

We are currently representing sponsors in relation to renewable projects in Australia, the CEFC and contractors and operators. Our current and recent transactions for regional sponsors has included work in Japan, the Philippines, Thailand and Malaysia, with a particular emphasis on wind, solar, hydro, biofuels and biomass projects.

As a result of this broad experience, our understanding of the sector is informed by international best practice and current market knowledge. We then blend this the technical nous of our various 'engineers-turned-lawyers' to be able to seamlessly interface with technical advisors and project teams.

## MORE INFORMATION

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<sup>14</sup> "Renewable energy in the Asia Pacific", 20 April 2015, <https://www.dlapiper.com/en/australia/insights/publications/2015/04/renewable-energy-in-the-asia-pacific/>.