



GBN Bulletin- January 2017

Greetings!

Happy New Year, and thank you for reading the first Green Bank Network Bulletin of 2017! Last year wrapped up with tremendous success and momentum for Green Bank solutions around the world. Green Bank Network members [continued to close new and innovative deals across a number of clean energy markets](#). New finance solutions, like those used by Green Banks, are increasingly viewed as critical to achieving global and national climate goals. The Green Bank model was highlighted by the G20 Green Finance Study Group (China and UK co-chairs) as [China moves to create a suite of regional Green Banks](#). Also in 2016, the Green Bank model was recognized by numerous NGOs and thought leaders, including in the New Climate Economy's 2016 report on the ["Sustainable Infrastructure Imperative."](#) A new paper [released at COP22 in Morocco authored by CGC, NRDC and Climate Finance Advisors](#) illustrated the potential for Green Bank activities to scale up climate finance in emerging markets. As an organization, the GBN [held its first annual meeting in Tokyo in October](#), in parallel with the annual Green Bank Congress hosted by the Green Finance Organisation (Japan) and the OECD's Green Investment Financing Forum.

Looking toward 2017, we anticipate that preparations for the upcoming COP will increasingly focus on green finance, or as Sean Kidney of CBI said it, ["let COP23 be the year of capital raising plans."](#) In the coming year, the GBN will co-host a green finance event with the IDB and OECD in Mexico. And keep an eye out for more webinars, bulletins, regular additions to the GBN website's [Knowledge Center](#), and Green Bank transaction data as the GBN expands its capabilities and welcomes new members.

Best,

CGC and NRDC

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Recent GBN Member Transactions

Clean Energy Finance Corporation

In October, the CEFC and Commonwealth Bank announced the launched a new [AU\\$100 million Energy Efficient Equipment Finance program](#) for Australian businesses and not-for-profits. The program has major potential for transport, agriculture, construction sectors to benefit from clean energy technologies. In early December, the [CEFC and Investa Office Management announced that they have joined forces](#) to push the boundaries of energy efficiency in commercial property, reinforced by Investa's market-leading commitment to Science Based Targets. Also in December, CEFC made [an AU\\$20 million cornerstone investment](#) in the world's first university-issued certified climate bond, issued by Monash University.

Most recently, CEFC made [a new debt finance commitment of up to AU\\$120 million](#) as one of the co-financiers in the development of a wind farm in New South Wales. The project has secured a 20-year feed-in-tariff for 100MW of the wind farm's output and will trade the remainder of the project's output on a merchant basis. CEFC and its co-investors' commitment is demonstrating the bankability of large-scale renewable energy projects which have not achieved 100% energy offtake agreements.

Connecticut Green Bank

CGB, which recently celebrated [five years since its creation](#), has announced that a [multi-million-dollar project](#) to improve energy efficiency and utilize renewable energy systems at Curtis Packaging's production headquarters in Sandy Hook, Connecticut is nearing completion. The US\$2.5 million project, which includes a natural gas conversion project, new energy efficient HVAC and lighting systems, and a solar array, is being financed through CGB's Commercial Property Assessed Clean Energy program over a period of 16 years.

Green Finance Organisation (Japan)

In October, the Green Finance Organization was pleased to announce an [equity investment of 390 million yen in a small-scale wood biomass \(gasification\) power generation project](#). The combined heat and electric power supply operation will make practical use of unused biomass resources, principally thinned wood. GFO's investment will encourage other financial institutions to provide financing for this project, and when operational, it will promote the construction of additional small-scale biomass operations in Japan. The project will bring jobs to local communities and reduce carbon dioxide emissions

Green Tech Malaysia

During a speech in October, Prime Minister and Minister of Finance YAB Dato' Sri Mohd Najib bin Tun Abdul Razak announced the extension of the implementation period of the Green Technology Financing Scheme (GTFS) until 31 December 2017. The 2016 Budget also announced an increase of the borrowing limit under the scheme from RM50 million to RM100 million. Eleven projects have been certified through the GTFS since September 2016: nine in the “Energy (Producer)” category, one in the “Energy (User)” category, and one in the “Waste and Water (Producer)” category. A full list of certified projects can be found [here](#).

In addition to the GTFS, GreenTech Malaysia has kicked off [ChargeEV](#), a new initiative with the mission of building 300 electric vehicle & plug-in hybrid electric vehicle charging stations in Malaysia.

New York Green Bank

In early November, NYGB closed a financing that will bring energy efficiency to the Northport School District on Long Island. NYGB is providing an [18-year, \\$8.7 million investment](#), with Signature Public Financing Corp. This transaction – a long-term, tax-exempt lease/purchase agreement – was the first under NYGB's broader co-financing arrangement with Bank of America and will reduce the District's energy costs by over \$1.0 million annually.

In December, NY Green Bank announced the closing of [a \\$25 million senior loan for Plug Power](#), a Latham, N.Y.-based fuel cell manufacturer, to support the deployment of 1,300 fuel cell systems in New York over the next three years at distribution centers for clients such as Walmart and Home Depot.

NYGB also published its Quarterly Metrics Report, which reported that as of September 2016, NYGB received investment proposals for over \$1.6 billion of NYGB capital - in turn representing \$5.3 billion of total potential clean energy investments in the State. As NYGB closes investments, a Transaction Profile for each investment will be made available on the NYGB website. A number of [Transaction Profiles](#) are already posted.

UK Green Investment Bank

In October, the UK Green Investment Bank plc (GIB) announced its commitment of £28m of debt finance to a new £142m energy-from-waste plant near Edinburgh, Scotland. In this 18th GIB investment in Scotland, GIB joins a lending club that includes Investec, Siemens Bank and Credit Agricole. In December the GIB committed £35m of senior debt to the construction of Wheelabrator Parc Adfer, a new £180m energy-from-waste (EfW) plant at Deeside Industrial Park in Flintshire, North Wales.

The GIB also announced that it has loaned [£10.2m to Kent County Council](#) to support its £40m programme to replace streetlights with energy efficient LED lights. This was the biggest non-Private Finance Initiative (PFI) streetlighting project in the UK to date. Kent is to replace 120,000 streetlights by mid-2019, and expects a saving of £5m a year through lower energy costs, as the LED lights will cut its electricity demand by 60%. In December the GIB also agreed a [£6.8m Green Loan for LED streetlighting with a London Borough Council](#) that could save the council up to £21m.

The GIB [produced a new Green Impact Report for a green bond offering](#) of Banque Centrale Populaire in Morocco. GIB is now discussing the commercial application of its green impact

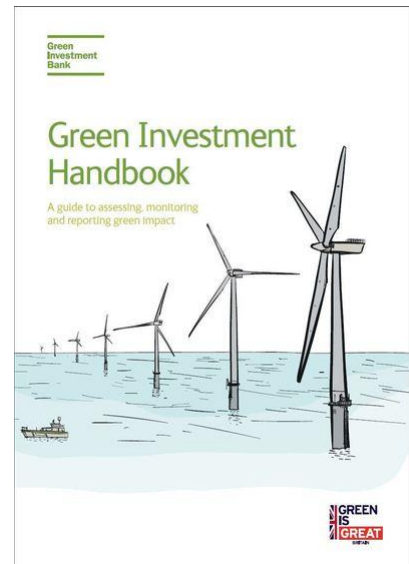
reporting methodology with other market participants.

Recent Green Bank Publications

Below is a selection of recent publications that are available online and have been added to the Green Bank Network's online [Knowledge Center](#).

What gets measured, gets managed: New Green Impact Reports published by UK GIB

When the UK GIB began investing in green infrastructure in 2012, the GIB team did not have a sufficient scientifically rigorous methodology for to measure green impact of their investments. They got to work developing their own approach designed by investors, for investors, and it has been used to measure green impact of all of the GIB's investments. This methodology is outlined in the GIB's [Green Investment Handbook](#). In order to show how green impact of projects can be measured, the GIB has recently published a [Green Impact Report for Galloper Offshore Wind Farm](#), and a [Green Impact Report of a Green Bond to be issued by Banque Centrale Populaire in Morocco](#). GIB plans to publish additional such reports to further illustrate the real, broadly applicable usefulness of this green impact measurement approach.



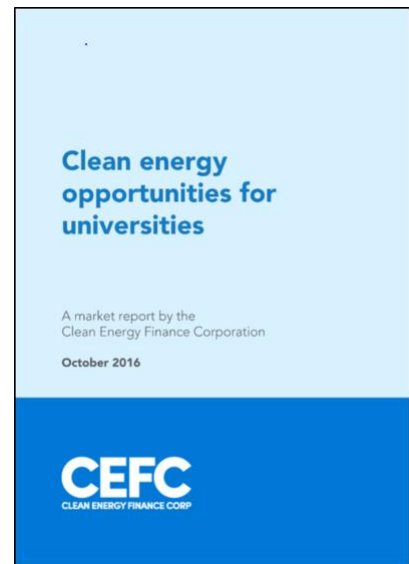
CEFC publishes Annual Report: AU\$ 2.3 billion invested into projects worth AU\$ 5.7 billion so far

The Clean Energy Finance Corporation of Australia released their latest annual report last month, covering 2015-2016. The report highlights investments in Australia's third largest wind farm at Ararat and edge-of-grid solar in Queensland along with other renewable energy projects. CEFC has made investments in energy efficiency and the built environment, and lined up new sources of capital including a world-first green securitised bond with Flexigroup. In total as of June 2016, the CEFC has made cumulative commitments of AUD \$2.3 billion to projects valued at some \$5.7 billion. Read the full report [here](#) and [watch the video](#) featuring CEFC's Jillian Broadbent.



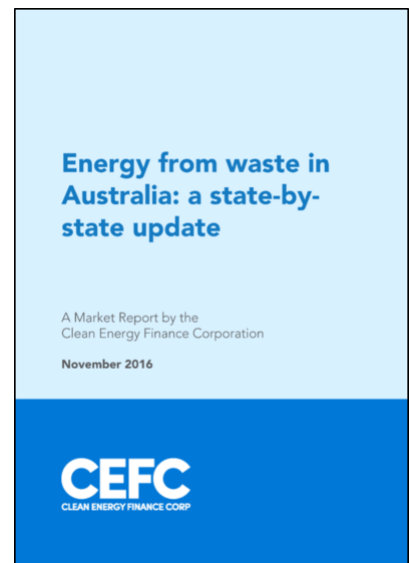
CEFC Market Report: Clean Energy Opportunities for Universities

This October 2016 market report from the CEFC asserts that that Australian Universities are facing rapidly increasing energy costs when they could be reducing energy consumption with clean energy technologies. Highlights of the report include how universities, which consume large and growing amounts of energy, can use debt to fund clean energy projects in a way that makes economic and environmental sense. The CEFC is offering tailored finance for Australian universities to invest in clean energy, reduce costs and lower carbon emissions. The full report can be accessed [here](#).



Energy from waste Australia: a state-by-state update

This November 2016 market report from the CEFC identifies several states as having policy settings and levies that support investment in energy from waste and bioenergy projects. The report notes that facilities that turning urban waste into electricity is a major investment opportunity in the Australian energy from waste sector. New South Wales, Western Australia, Victoria, South Australia and the Australian Capital Territory are showing leadership with supportive policy settings for energy from waste investment. The CEFC can support project developers, waste companies and council who are looking for finance for energy from waste projects. The full report can be accessed [here](#).



Green & Resilience Banks: How the Green Investment Bank Model Can Play a Role in Scaling Up Climate Finance in Emerging Markets

During the COP22 in Marrakesh in November, thought leaders in global green investment policy released a working paper on the potential of the Green Bank model to scale up climate finance in emerging markets and developing economies. The paper highlights how Green Investment Banks are well placed to make effective and efficient use of climate funds from international facilities such as the Green Climate Fund, the Global Environment Facility and the Climate Investment Funds. In emerging and developing economies, Green Investment Banks could help countries meet their climate goals articulated in their commitments under the Paris Agreement, serve as a locus of financial innovation in local markets, and blend and coordinate investments by diverse public, private, international and domestic investors. The full report can be accessed [here](#).

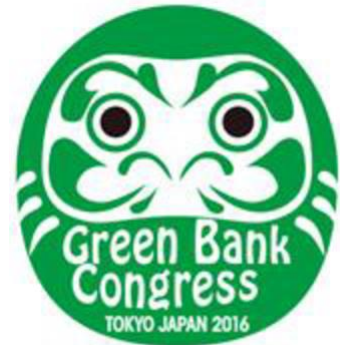


Recap: a Green Bank events-filled Fall 2016

Fourth Annual Green Bank Congress

11 October 2016 in Tokyo, Japan

The much-anticipated event hosted by the Green Finance Organisation (JAPAN) and the Ministry of the Environment was attended by individuals from GBN Member institutions, the Japanese government, and international non-governmental and quasi-governmental institutions. The Green Bank Congress consisted of a welcoming address by the host Green Finance Organisation emphasizing the timeliness of the event in light of the recent Paris Agreement, followed by presentations by green banking and financial institutions, the Green Climate Fund, and the Green Bank Network team.



Conference on Environmental Finance

12 October 2016 in Tokyo, Japan

The Ministry of the Environment, Government of Japan hosted a conference on environmental finance with topics focusing on finance and investment under the Paris Agreement, future environmental and capital demands in Asia, and efforts to vitalize local economies with low carbon investments. Mr. Takejiro Sueyoshi of the Green Finance Organisation (JAPAN), Mr. Bert Hunter of the CT Green Bank, and Mr. Gavin Templeton of the UK Green Investment Bank participated in the conference as panelists.

OECD Green Investment Financing Forum

13-14 October 2016 in Tokyo, Japan

The Organisation for Economic Cooperation and Development, in association with the Asian Development Bank Institute (ADBI), held the third annual [Green Investment Financing Forum](#) (GIFF) over two days following the Green Bank Congress and GBN Working Session. The event gathered key actors in financing green investment from around the world for a targeted discussion under the Chatham House Rule.

This year's forum focused on Asia – a region with rapidly growing economies, developing financial markets and colossal green investment needs. Policy makers in Asia are increasingly examining ways to promote investment in high-quality, green infrastructure in order to achieve sustainable growth while ensuring the transition to a low-carbon economy. Also as part of the event, the OECD announced the launch of their [Centre on Green Finance and Investment \(CGFI\)](#). The CGFI's mission is to catalyse and support the transition to a green, low-emissions and climate-resilient global economy through the development of effective policies, institutions and instruments for green finance and investment.



One of the panels held on the first day of the GIFF focused on the role of public financial institutions, including public green banks, in mobilizing private investment in low-carbon and climate-resilient infrastructure. The panel highlighted successes of green banking and financial institutions so far, including their unique characteristics that make them particularly suited to attract public capital to green infrastructure projects.

The OECD has more information on the third and previous GIFFs on [their website here](#). Recent OECD publications on green finance include a [Progress Report on Approaches to Mobilising Institutional Investment for Green Infrastructure](#) (September 2016) and [Green Investment Banks: Scaling up Private Investment in Low-carbon, Climate-Resilient Infrastructure](#) (May 2016).

The Progress Report found that Green Investment Banks are already having an outsized impact in mobilizing investment in green infrastructure. In a survey on the role of public funding as a “risk mitigant” or “transaction enabler” for institutional investors, the OECD report found that of the transactions reviewed, five GIBs located in three countries were involved in one quarter of the deals. This is particularly notable given the relatively recent establishment of GIBs.

OECD Workshop on Financing Green Infrastructure

3 November in Paris, France

The [workshop](#), which took place back-to-back with the meeting of the G20/OECD Task Force on Institutional Investors and Long-term Financing, focused on:

- Green infrastructure financing: main investment trends and attractiveness
- Role of banks, utilities and equity sponsors in financing green infrastructure

- Establishing a secondary market for green infrastructure: the role of institutional investors
- Unlocking investment and financing for green innovation

Energy efficiency financing event hosted by IDB and ALIDE

15-16 November 2016 in Lima, Peru

The Inter-American Development Bank (IDB) and the Latin American Association of Financial Institutions for Development (ALIDE) partnered to host an event titled, “[Innovative Financial Instruments to Support Energy Efficiency: Experiences from Financial Institutions in Latin America and Asia-Pacific Regions](#)”. The event featured leaders from around the Americas and Asia Pacific regions and speakers discussing the Green Bank model including Bryan Garcia from CT Green Bank, and Jeff Schub from Coalition for Green Capital.



This event continued a growing dialogue and exchange of experiences among financial institutions from Latin America and the Caribbean (LAC) and Asia – Pacific (APAC) regions about the challenges and opportunities for private investments in energy efficiency to mobilize and deploy adequate and effective financial resources to achieve a low-carbon, climate-resilient development. See the full list of speakers and topics [here](#).

COP22 side event: Investing in the planet - Green Banks and other financial tools to scale up mitigation technologies

14 November 2016 in Marrakesh, Morocco

This official side event at COP22 focused on financing challenges on-the-ground and solutions for policymakers and investors. Speakers discussed the enabling environment that policy can provide and the need for sufficient financing. The diverse set of speakers covered the full cycle for financing clean technologies – from the initial types of technologies to the testing, commercialization, and financing phases. Doug Sims, Director of Strategy and Finance at NRDC’s Center for Market Innovation spoke on the Green Bank model in existing markets and the potential for scaling in emerging markets.



A video of the event [is now available on YouTube](#) or [view the PowerPoint presentation](#) on Green and Resilience Banks: How the Green Investment Bank Model Can Scale Up Climate Finance in Emerging Markets, presented by Doug Sims from NRDC.

Webinar: Green & Resilience Banks: How Can the Green Investment Bank Model Play a Role in Scaling Up Climate Finance in Emerging Markets?

15 December, online

The GBN held a webinar on the new policy working paper, [Green & Resilience Banks: How the Green Investment Bank Model Can Play a Role in Scaling Up Climate Finance in Emerging Markets](#).

Presenters from Climate Finance Advisors, the Coalition for Green Capital, and the Natural Resources Defense Council shared highlights from the report, including information about the creation and capitalization of Green Investment Banks (GIBs) across the world that have had success in attracting private capital to low carbon, climate-resilient infrastructure investments. Presenters also gave an overview of the newly released paper's insight into how the GIB model is a useful approach for countries with developing and emerging economies to consider.



A second webinar for the Asia-Pacific time zones will be held on Wednesday, January 11 at 11:30am-12:30pm Beijing (China Standard Time) / 9:00am-10:00am Delhi (India Standard Time). [Register here](#).

Green Bank Growth



The year 2016 saw growing interest in the Green Bank model internationally. As reported in

previous newsletters, Green Bank efforts are underway in [India](#), [China](#), [Canada](#) and other countries around the world. In addition, a new local Green Bank in the United States, located in Montgomery County, Maryland has recently made several steps toward operation.

Montgomery County Green Bank, USA

The new Montgomery County Green Bank (MCGB) was incorporated in 2016, and in recent months has made several strides toward full-fledged operation. The MCGB board of directors has been established, governance documents have been put into place, operations work has begun, and staff are working on developing MCGB's first products and investment strategy. The MCGB is also working with stakeholders and exploring partnerships including with local financial institutions and housing development agencies. The MCGB is the first county-level Green Bank in the United States.

Green Banks in the News

You can stay up to date with green bank news and announcements, a selection of which are below, by visiting the GBN's [Green Banks in the News](#) page.

[London streetlights go green](#)

2 January 2017

Barking and Dagenham Borough Council is to receive a £6.8 million green loan from the Green Investment Bank. It will finance the replacement of around 14,790 traditional streetlights with efficient LED models and could eventually save the council up to £21 million.

[NY Green Bank lends \\$25 million to fuel cell company](#)

25 December 2016

The state-sponsored New York Green Bank is lending \$25 million to an Albany-area manufacturer to expand fuel cell use at distribution centers for clients such as Wal-Mart and Home Depot.

[Green Investment Bank Backs Energy Recovery Facility In North Wales](#)

16 December 2016

UK Green Investment Bank plc (GIB) has committed £35m of senior debt to the construction of Wheelabrator Parc Adfer, a new £180m energy-from-waste (EfW) plant at Deeside Industrial Park in Flintshire, North Wales. The lending club also includes Mitsubishi UFJ Financial Group (MUFG), Siemens Bank and Natixis, with Barclays providing an equity bridging loan.

[CEFC backs 270MW Sapphire wind farm, in vote of confidence for merchant market](#)

12 December 2016

The 270MW Sapphire wind project near Glen Innes in northern NSW will proceed to construction, after securing up to \$120 million in debt finance from the Clean Energy Finance Corporation.

The CEFC said that its commitment to the \$588 million project – the fifth and final winner of the ACT government's large-scale wind reverse auction – would both demonstrate the bankability of large-scale renewables projects in Australia and help allay concerns about merchant risk; a key concern as a number of the nation's biggest wind and solar projects look to the merchant market.

[Connecticut Green Bank Turns Five](#)

8 December 2016

The Connecticut Green Bank is marking five years of exceptional progress toward its goal of reducing the energy burden on households and businesses by mobilizing private investment into the state's clean energy economy.

[Quantum Biopower unveils the state's first food-to-energy facility](#)

25 November 2016

Southington is now home to Connecticut's first food waste-to-renewable-energy facility, bringing cutting edge technology and a new spin on recycling.

[GIB appraises green impact of €100m Moroccan green bond](#)

16 November 2016

Banque Centrale Populaire (BCP) today launched a €100m green bond at COP 22 in Marrakesh, the proceeds of which will be used to refinance its investments in selected renewable energy projects in Morocco.

[Hostels to high-end: the Australian hotels embracing renewable energy](#)

13 November 2016

Dozens of hospitality operators have taken up solar PV in recent years, such as...the 1.8MW of solar panels installed at Ayers Rock Resort (with assistance of financing from the Clean Energy Finance Corporation) in a bid to capitalise on the desert heat.

[Green Bank Network Announces US\\$ 22 Billion Milestone at OECD's Green Investment Financing Forum](#)

26 October 2016

The Green Bank Network announced that in its first two years, the Network's six founding members have closed transactions expected to mobilize over US\$ 22 billion for clean energy projects around the globe, putting them on pace to exceed their collective goal of US\$ 40 billion over five years announced in 2014.

[Connecticut Gets Federal Grant to Improve Solar Access For Low- And Moderate-Income Homeowners](#)

24 October 2016

Connecticut is getting a \$160,000 federal grant for a three-year effort to increase the number of low- and moderate-income people able to take advantage of the state's solar-power programs.



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