IJGlobal Awards 2019

Europe & Africa

It is with great pleasure – but sadly not in the splendour of London's Natural History Museum – that we announce *IJGlobal*'s winners for European and African awards for company activity and transactions closed over calendar year 2019.

Sadly, due to the coronavirus pandemic, we were forced to cancel the March dinner and ceremony in the spiritual home of *IJGlobal* Award Nights, under the watchful gaze of dinosaurs from the industry and pre-history alike.

Winners in the institutional category were voted on by senior figures from across the regional infrastructure and energy community – none allowed to vote in their own business areas – in what is widely regarded to be the most independently-judged awards in this sector.

Winners in the European transaction category are:

- Battery Storage – **Yorkshire Solar and Battery Hybrid**
- Oil & Gas – **Kellas Refinancing**
- Innovation – **Allego**
- Ports – **Gdansk Port**
- Refinancing – **Beatrice offshore wind**
- Waste – **Belgrade Energy from Waste**
- Portfolio Refinancing – **Project Keane Refinancing**
- Utility – **Elenia Heat**
- Power – **Neart Na Gaoithe**
- ESG Finance Innovation – **Soma 4 Project**
- Renewables Acquisition – **Kisielice onshore**
- Social Infrastructure – **Irish Social Housing Bundle 1**
- Telecoms – **EllaLink Subsea Cable**
- Transport – **Silvertown Tunnel**
- Restructuring – **Irish Schools Bundle 5**

Winners in the African transaction category are:

- Mining – **Guinea Alumina Project**
- Oil & Gas – **Gimi Floating LNG**
- Transport – **New Owendo International Port PPP**
- Refinancing - **Societe Ivorienne de Raffinage**
- Power – **Bridge Power**
- Renewables – **Kahone and Toube Solar**

European Battery Storage
Yorkshire Solar and Battery Hybrid

The Hybrid solar farms in Yorkshire and Hull are the first of their kind in the UK, built without any reliance on subsidies which are the life blood for most clean energy projects around the world.

The solar farm in York uses 90,000 Suntech bifacial panels which facilitate energy production from both sides of the panel to generate 34.7MWp using a 27MW battery, in what is being called a "pioneering" model for the commercial production of solar energy in the country.

Bifacial technology uses light bounce, also known as Albedo, to produce energy from the underside of the solar panel, maximising energy production without increasing costs.

The Hull project is modelled around the same technology and financing and enabling the local Warrington Borough Council to be the first in the UK to produce all its own electricity from green sources.

Sustainable energy technology developer, Gridserve, and Warrington Council closed the project financing on both the farms with a combined capacity of 62MW, supported by the 27MW storage facility.

Gridserve prides itself on building "intelligent energy storage" which allows it to shift energy to a time when it is more valuable and providing grid services around the clock.

It is wonderful to be recognised for being a part of a project that is the first of its kind in the UK.

The batteries are being provided by the Chinese technology company Sungrow which is a subsidiary of Samsung. Gridserve has said that procuring finance for the first farm in York was challenging as banks were hesitant to invest in new technology but its efficiency and profitability made funding the farm in Hull infinitely easier.

Following the successful implementation of the two projects, Gridserve claims it has a "grand pipeline" of projects within the UK including a 100MW farm across four sites.

Chief investment officer of Gridserve, Mark Henderson, said: "It is wonderful to be recognised for being a part of a project that is the first of its kind in the UK. The model we used has the potential to be the road map for other solar energy farms as we proved that such projects can be executed without reliance on public grants."

European Oil & Gas
Kellas Midstream Refinancing

In the months leading up to Antin Infrastructure Partners' sale of the Kellas midstream assets, the sponsors hired Natixis as mandated lead arranger and bookrunner to refinance the assets of strategic geopolitical importance.

Kellas Midstream business consists of the Central Area Transmission System (CATS), Esmond Transportation System (ETS) and the greenfield construction project Humber Gathering System – which transport gas from the North Sea to the UK.

The refinancing only impacted CATS and ETS with the Humber Gathering System sitting outside the financing.

The financing structure was underpinned by the pipeline's over-performing past, its connection to large gas fields and its exploitation by key oil majors and integrated utilities.

In the refinancing, Natixis was supported by five other lenders on the £670 million ($852 million) underwrite: RBC Capital Markets, Lloyds Banking Group, ABN Amro, Scotiabank, Santander.

Then an additional 10 banks joined the syndication process: AIB, Banca IMI, Barclays, BBVA, BMO, BNP Paribas, CBA, CIC, Crédit Agricole, NatWest.

The tenor of the new debt is five years, and the pricing was rumoured to start at Libor +150bp, rising to 165bp, 175bp, 200bp and 245bp.

The transaction included a £40 million revolver and a £250 million uncommitted accordion facility.

The successful refinancing saw banks compete to lend on the refinancing of debt on Kellas' operational assets, later leading to a competitive auction process which saw Singapore sovereign-wealth fund GIC and Blackrock acquire the asset for around £1.5 billion a year later.

The CATS pipeline is a 404km subsea pipeline connecting 34 producing fields from a fixed offshore riser platform in the central North Sea to an onshore gas processing terminal in Teeside, on the north east coast of England. ETS is a 165km long subsea pipeline in the Southern North Sea connecting producing fields to the Bacton gas terminal.

European Innovation
Allego

In May 2018, Meridiam announced the acquisition – fully funded with equity – of 100% shares in EV charging provider Allego from Alliander through the Meridiam Transition Fund. Meridiam mandated Societe Generale to structure the financing of a general-purpose facility to fund its development and geographic expansion in Europe.

Allego rolls out, operates and provides services linked to EV charging stations and associated digital solutions. It has more than 10,000 charge points installed in Europe (enjoying market leading positions in the Netherlands and Germany).

With electric vehicle uptake expected to increase exponentially in the next decade – in 2030, one in three car sales is expected to be EV-based according to one estimate – Allego will need to invest heavily in R&D and IT expenses. The amount to be financed in the next five years is roughly €230 million.

Lenders Kommunalkredit and Societe Generale proposed a tailor-made structure suited to Allego's needs, with strong covenants to monitor the sustainable growth of the company. It provided a €150 million debt facility (including a €30 million accordion), with a seven-year maturity and an availability period of five years, cash sweeps, and a bullet repayment profile.

The debt is a senior financing of Allego, without recourse to Meridiam and includes an extensive security package and strong covenants to monitor the growth of the borrower, its profitability, and debt sizing.

A joint syndication targeting both investors and banks attracted experienced players including Edmond de Rothschild via its BRIDGE platform, La Banque Postale Asset Management and SCOR Investment Partners.

The arrangement marks the first-of-a-kind financing in an infrastructure asset class of the future with a borrower whose strategy allows it to strongly mitigate the ramp-up risk related to the transition to EV mass market.

The 2026 horizon for debt maturity should give enough comfort regarding the EV market take-off and Allego's strengthened position to envisage refinancing the amount outstanding.

European ports
Gdansk Deep Sea Container Terminal

Gdansk Deep Sea Container Terminal (DCT) is one of the terminals within the Port of Gdansk and is located on the southern coast of the Baltic Sea. It is the country's only deep-water container terminal able to receive ultra large container vessels and handled volumes of 1.9 million TEUs in 2018.

The company – located strategically to serve as a major gateway into Poland and Central-Eastern European markets – was at the end of May last year (2019) acquired by a consortium of IFM Investors, Singapore-based port operator PSA International and the state-owned Polish Development Fund (PFR).

They acquired 100% of the container terminal from Macquarie, which sold its 64% stake from Macquarie Infrastructure and Real Assets' Global Infrastructure Fund II, and Australian superannuation funds Motor Trades Association of Australia Super (18%), Australian Super (9%), and Statewide Super (9%).

PSA International now owns a 40% stake in the asset, while IFM Investors and Polish Development Fund own 30% each.

For the transaction, the enterprise valuation for the asset was €1.3 billion and EBITDA multiple was 17.6x.

The new owners intend to further strengthen DCT Gdansk's position and to look into additional expansion needs as and when relevant.

A group of eight lenders and lead arrangers including BNP Paribas, BGK, Bank Pekao, CIBC, EBRD, PKO, PZU, and Societe Generale provided acquisition financing for the asset. The banks provided a debt package of €382.5 million which comprised a €300 million acquisition term loan to refinance existing debt and finance the acquisition, a €70 million expansion capex facility, and a €12.5 million revolving credit facility. All the loans have a five-year tenor.

UBS acted as the financial adviser to the buyers, while advisers to Macquarie were Goldman Sachs, Clifford Chance, EY, Moffatt & Nichol and Environmental Resources Management. White & Case advised the lenders on the transaction.

European refinancing – **Beatrice Offshore Wind**

With a strike price at £140 per MWh over a 15-year contract, the 588MW Beatrice Offshore Wind Farm proved a highly attractive project for lenders, allowing its sponsors to slash debt pricing via a refinancing and release £500 million ($627 million) in equity.

Financial close on the £1.96 billion ($2.21 billion) refi, which was heavily oversubscribed, occurred on 9 July 2019.

Pricing on the new debt starts at 130bp above libor, with a step up to 145bp after the first five years and then one final step up to 160bp after 10 years. The SSE-led sponsor group was originally aiming for 125bp, and sources in the market had predicted it could be as low as 120bp in the run up to close.

Total debt on the project was increased to £2.45 billion during negotiations, allowing the sponsor consortium to change the gearing from 81.6:18.4 in the primary financing to around 94.2:5.8 in the refinancing, releasing around £500 million in equity to the owners.

Ticket sizes varied between lenders, with some commitments scaled back. There were 29 lenders in total on the deal and 24 hedging banks. Most of the debt came from commercial banks though there was also

an institutional investor tranche. Lenders on the refi included AIB, Bank of China, BNP Paribas, CaixaBank, Credit Agricole, HSBC, ICBC, LBBW, KDB, KEB Hana Bank, Lloyds, Mizuho, MUFG, Norinchukin Bank, SMBC, Santander, SMTB, Societe Generale, Siemens Bank.

Pricing on the original debt came in at 200bp-210bp, stepping up as soon as construction completed (May 2019). The tenor of the debt, which signed in 2016, was 15 years. The primary financing reached financial close on 20 May 2016.

Located 13km off the Caithness coast in Scotland the project is the fourth largest offshore wind farm in the country. The development site covers an area of around 131.5 square kilometres.

European waste

Belgrade Energy from waste project

In October last year (2019), Suez, Itochu and Marguerite brought a landmark waste-to-energy (WtE) PPP project to financial close in Serbia's capital city.

Beo Cista Energija (BCE), the project SPV, is responsible for shutting down one of Europe's largest open dumpsites still active and replacing it with EU-compliant sanitary landfill and waste disposal facilities which will process about 700,000 tons of municipal solid waste, construction and demolition waste annually.

As one of the first large-scale WtE projects financed privately in the Balkans, the Belgrade WtE project serves as a pathfinder for other cities in the region that are faced with similar waste challenges.

The project featured innovative risk allocation to deal with the challenges of implementing a complex project in an emerging market and involved non-recourse debt financing alongside guarantees from the Multilateral Investment Guarantee Agency (MIGA) to make the project bankable.

The sponsors used an equity bridge loan of about €90 million provided by Raiffeisen Bank International and UniCredit.

MIGA provided guarantees of €97.3 million for up to 20 years against non-commercial risks. The guarantees cover up to 90% of investor equity in the project company.

A non-recourse financing of €290 million included an A-loan of €72.25 million with an 18-year tenor from EBRD and IFC each, a B-loan amounting to €70 million with a 15-year tenor from UniCredit and Erste Bank, and a €35 million loan from Oesterreichische Entwicklungsbank (OeEB).

The debt also comprised concessional funding of €21 million from Taiwan International Cooperation Development Fund (ICDF) and €20 million from Canada-IFC Blended Climate Finance Program.

The IFC was the lead adviser to the City of Belgrade, and was in turn advised by Hogan Lovells, Karanovic & Partners and Fichtner on the project. Advisers to sponsors included UniCredit, Baker McKenzie, Wolf Theiss, KPMG, and Herbert Smith Freehills. Meanwhile, the lenders were advised by Clifford Chance, BDK Advokati, Arup, PwC and White & Case.

European portfolio Refinancing
Project Keane Refinancing

New York Stock Exchange-listed Brookfield Renewable Partners' refinancing of its Irish onshore wind portfolio, completed in June 2019, and was the winning entry for the European Renewables Portfolio Financing category.

Brookfield undertook the complex refinancing of 18 operational windfarms – with a combined output of 361MW, all in the Republic of Ireland – in advance of an asset disposal which commenced in the latter part of 2019.

The farms, divided between three financing portfolios, were rationalised into one consolidated financing portfolio with five lenders, who collectively provided €325 million.

The existing portfolios consisted of; seven wind farms financed in 2008 with eight lenders, nine wind farms financed in 2014 with four lenders and two wind farms financed in 2017 with three lenders.

Mandated lead arrangers on the debt package were Canadian Imperial Bank of Commerce (CIBC), Allied Irish Bank (AIB), Export Development Canada (EDC), Natixis and Sabadell.

The debt, including associated swaps, bears a fixed interest rate of 3.18% and matures in December 2032.

The key challenges faced in the process were integrating older merchant assets (up to 11 years old) with newer REFIT projects (less than one year old), determining the appropriate technical asset life of a wind farm, and managing the new market risks in the Irish market (ISEM process) as wind became balance responsible for the first time.

To realise the target debt level and preferred financing terms lenders and their advisers needed to understand and accept a number of new approaches to the challenges faced as the onshore wind industry evolves to a subsidy-free investment world.

European Utility
Elenia Heat

The sale of a Nordic district heating firm always attracts a competitive number of infrastructure funds, resulting in Finnish firm Elenia Heat changing hands at a 21x EBITDA multiple.

Given the attractive nature of the asset, the Elenia Heat auction led to a bidding environment which was so intense it may put off potential buyers for future deals as they fear a repeat of the Elenia divestment process that would price the asset beyond its reach.

Elenia Group launched a strategic review on announcing plans to divest the district heating division – Elenia Lämpö Oy – allowing it to focus on the core business of electricity distribution, Elenia Networks.

The first round of bidders attracted a DIF consortium, AXA IM with Adven, Vauban and Arjun Infrastructure Partners entering the fray for the deadline for final bids.

On 1 July 2019, the consortium of DIF Infrastructure V, SL Capital Infrastructure II – each holding 37.5% – and Local Pensions Partnership Investments holding the remaining 25% was selected as the winner to acquire 100% of the Finnish asset.

The enterprise value of the asset at the time of the sale was around €525 million ($585.7 million) and was funded through 60% equity and 40% debt.

SEB acted as lead bank in arranging the €280 million debt package as well as serving as facility and security agent. The entire banking team included BNP Paribas, CIBC, DNB, National Australia Bank, OP Financial Group and SEB.

Each bank lent €46.7 million towards the acquisition and the debt packages comprised a €210 million acquisition term loan, a €15 million working capital facility and a €55 million revolving credit facility.

The debt has a five-year tenor and was lent at margins of Euribor +175-250bp.

European power
Neart Na Gaoithe

Neart Na Gaoithe (NNG) offshore wind farm saw a decade pass between development rights being awarded in 2009 and reaching financial close in 2019 where final sponsors EDF raised construction debt while selling down equity simultaneously.

Mainstream was first awarded exclusivity rights to develop the project in 2009. The UK's Department of Energy and Climate Change awarded the project a contract for difference subsidy in December 2013, which was taken away and given back twice before finally being awarded in March 2017.

In the meantime, the wind farm also lost its planning permission after Scottish courts ruled the project presented a risk to wildlife – a decision that was also appealed and overturned in July 2017. After it concluded all legal battles, Mainstream sold the windfarm to EDF Renewables in May 2018, and it quickly reopened the project to fresh investors in October.

EDF entered negotiations with Irish utility ESB to take a 50% stake.

EDF Renewables sought out new debt to leverage its stake in NNG in January 2019 while finding a bidder to take a stake in the project.

EDF entered negotiations with Irish utility ESB to take a 50% stake and signed the £1.6 billion ($2.1 billion) project finance debt with a club of 25 lenders on 26 November (2019).

Equity investment of around £400 million is supported by the primary senior debt facility and an EKF-covered tranche. 24 commercial banks also participated on the transaction: Bank of China, Barclays, BNP Paribas, CaixaBank, CIC, Credit Agricole, Commerzbank, DZ Bank, Helaba, ING, KfW IPEX-Bank, LBBW, Lloyds, Mizuho, MUFG Bank, NatWest, Norinchukin, OCBC, Santander, SEB, Shinsei, Siemens Bank, SMBC, Societe Generale.

Pricing on the senior debt starts at 130bp above Libor, stepping up to 140bp. It has a tenor of 15 years plus construction, and the debt package has a debt cover service ratio (DSCR) of 1.4x.

ESB acquired its 50% stake with equity provided by the Government of Ireland. The deal has yet to close but it is understood that ESB paid a high premium – around half the price of the entire project costs.

Offshore construction will start in June 2020 and full commissioning will be completed in 2023.

European ESG Finance Innovation
Soma 4 Project

Garanti BBVA signed up to lend $44 million in the form of a "gender equality loan" to Polat Energy to construct a 48MW extension to the operational 240.1MW Soma wind farm in Turkey.

The loan consists of two portions – $21.5 million cash tranche with an eight-year tenor and a $22.6 million non-cash tranche with an 11.5-year tenor.

The gender equality loan adds several contingencies requiring Polat Enegry to annually assess its performance in gender equality across its value chain. Criteria include in the assessment are postnatal return-to-work programs, equality in new recruitment, equal pay and policies to prevent harassment.

Improvements will translate into better terms on the loan. With better gender equality KPIs achieved the interest rate for the cash portion will be lowered, while the commission for the non-cash portion will be reduced.

Located across the Soma district of Manisa Province in west Turkey, the existing Soma wind complex consists of three phases; the 79.2MW Soma 1, the 60.9MW Soma 2 and the 100MW Soma 3.

Soma 1 consists of 89x Enercon E44/900 turbines with a combined estimated annual production of 200GWh. This initial phase reached financial close in December 2008.

Soma 2 features 30x Enercon E70/2000 turbines and has an estimated annual production of 150GWh. This second phase reached financial close in 2011.

Soma 3 comprises 50x Enercon turbines, each with a capacity of 2MW, and reached financial close in 2014.

Garanti BBVA has provided debt for all four phases of the wind complex.

Women in Turkey face significant disparities in employment and in some regions, this is also reflected in the realms of education. The participation of Turkish women in the labor force is less than half of that of the European Union average.

Gender Equality Loan: $44 million

MLA: BBVA

Tranches: $21.5 million cash tranche and $22.6 million non-cash tranche

Tenor: eight-year tenor for cash tranche and 11.5-year tenor for non-cash tranche

Size of extension: 48MW

European renewables Acquisition
Kisielice onshore

Green Investment Group (GIG) acquired the 42MW Kisielice Polish wind farm in August 2019 from Impax Asset Management's renewable energy fund Impax New Energy Investors II – marking the Macquarie owned investment firm's first investment in Poland.

The project has been fully operational since 2014 and consists of 21x Enercon E82 turbines. It is located in Warmiab, Masurian Voivodeship. GIG bought the Kisielice onshore wind farm using equity with no debt raised to support the acquisition and refinanced the project finance debt on the asset to close the deal.

Onshore wind is Poland's largest renewable energy source.

GIG also had to put in place a new contractual off-take framework by the closing date with a new power purchase agreement (PPA), green certificates purchase agreements and the agreement for the sale of guarantees of origin.

Shortly following the signing of the acquisition, Signify signed to offtake the energy from the wind farm through a 10-year virtual power purchase agreement (VPPA) – making Kiselice one of the first wind farms in a Central Eastern European country to have a long-term VPPA.

GIG also chose Wpd Windmanager to provide O&M services to the wind farm.

The acquisition also led to GIG's second investment in Poland in November (2019), after it aquired the Zajaczkowo wind farm from J-Power and Mitsui.

Extensive W&I insurance was taken out by GIG to acquire the shares of the wind farm. Allen & Overy acted as legal adviser to Macquarie and K2 Management handled technical advisory on the acquisition.

Poland is heavily dependent on an aging fleet of coal and lignite plants and has launched onshore wind auctions to meet 2.5GW of its electricity needs from renewables. Onshore wind is Poland's largest renewable energy source with 5.7GW of installed capacity.

Advisers: Allen & Overy, K2 Management

VPPA length: 10 years

Offtaker: Signify

Size of farm: 42MW

European Social Infrastructure
Irish Social Housing Bundle 1

Bundle one of Ireland's first social housing PPP project came at a time of mounting pressure on the housing market, with a shortage of housing supply, increased demand for home ownership and cases of half-built properties dotted across the country.

The project – part of a €300 million ($337 million) three-part programme which in its entirety aims to develop 1,500 new homes and upgrade around 700 existing properties across the country – also marks a significant milestone for Irish infrastructure procurement as it opens up a new important avenue for delivering social housing schemes.

Comhar Housing, comprising equity provider Macquarie Capital, contractor John Sisk & Son, and FM company Choice Housing and tenancy management company Oaklee Housing, will design, build, finance, operate and maintain six social housing sites across the Louth, Dublin, Kildare and Wicklow counties.

The consortium reached financial close on the project on 19 March (2019), signing on €120 million in debt financing from the European Investment Bank (EIB) and two commercial lenders.

EIB provided half of the debt financing, having voiced its support for the scheme back in March 2017.

Bank of Ireland provided a debt of €36 million and Korea Development Bank provided €26 million. The tenor of the debt is 25 years, matching the length of the concession. Meanwhile, Macquarie provided 10-15% of the overall funding to the project in equity.

Apart from Macquarie Capital as the consortium's financial adviser, McCann Fitzgerald and Arcadis provided legal and technical advice to Comhar consortium. Ashurst acted as legal adviser to the lenders.

Advisers to the Irish government were NDFA, Eversheds Sutherland, Willis Risk Services, HRA Planning, Simon J Kelly Architects, Hayes Higgins Partnership, Matt O'Mahony & Associates, ORS and Currie & Brown.

European telecoms
EllaLink Subsea Cable

The EllaLink Europe-Latin America submarine cable project was first conceived in 2012 by pan-European and Latin American e-infrastructure research and education networks GÉANT and RedCLARA. Their joint initiative BELLA, joining up their continents' research and education communities, committed to the project as one of the anchor tenants.

Two founders Alfonso Gajate and Ross Mullins and later CEO Philippe Dumont steered forward a €150 million ($172.9 million) project finance infrastructure development, for this first direct fibre pair from Europe to Latin America.

In 2017 Alcatel Submarine Networks won the job of EPC contractor.

The 9,300km four fibre pair cable, with up to 72Tbps capacity, will connect not just the education and research sectors as well as key financial centres, populations and data centres across the Atlantic. Carriers, operators and internet content providers can use the independent low-latency, carrier-neutral EllaLink. It runs undersea from Fortaleza and São Paolo in Brazil to Lisbon, Madrid, Bilbao and Marseille in Portugal, Spain and France.

With no detour required via North America, the round-trip time (RTT) is around 50% faster. The project also involved development of a terrestrial network to improve onward connection to Asia and the rest of the world.

In 2017 Alcatel Submarine Networks won the job of EPC contractor year. Manufacturing started in 2019 and the cable should be ready for service later in 2020.

Marguerite Fund invested early development capital eight months ahead of the project even reaching final investment decision, propelling the project to financial close on 9 January 2019 with €70 million equity. The EU and state banks-owned equity fund is EllaLink's single major investor. Gajate and Mullins and some other individuals hold collectively 13% shares, alongside Marguerite's 87%.

JP Morgan's €20 million nine-year mezzanine loan to Marguerite's holding company assists on its equity commitment.

Anchor tenants Emacom, BELLA and Cabo Verde Telecom are providing capacity pre-payments, toward funding remaining project costs.

European transport
Silvertown Tunnel

UK's Silvertown Tunnel is the first major transport investment in East London in the last 30 years. The tunnel will serve as a river crossing between Silvertown to the north of the Thames River and Greenwich peninsula, in the south, easing congestion in the 122-year-old Blackwall Tunnel.

This project will also be the UK's first road tunnel to have dedicated bus lanes and is slated for operations in 2025.

The project had numerous hurdles in its away, environmental objections, planning delays, scrapping of the PF2 to name a few, but at the end of 2019 it finally made it over the finish line.

The RiverLinx consortium consists of Macquarie Capital, Cintra, Aberdeen Standard Investments, BAM PPP PGGM, and South Korean contractor SK E&C as sponsors and equity providers.

A total of 14 lenders, including banks, institutional investors and an ECA, provided debt for the £1.2 billion project.

The multi-tranche debt included £450 million senior debt provided by Credit Agricole, Instituto de Credito Oficial, Korea Development Bank, KEB Hana, Norinchukin, and Shinsei Bank, and a direct loan of £100 million from KEXIM. Both loans have a 29-year tenor and priced at Libor +150-170bp.

A private placement of £100 million was provided by Aviva and Samsung Life over a tenor of 29 years and at a pricing of +150-170bp over Gilts. A debt facility of £375 million was provided by Credit Agricole, KfW IPEX and Norinchukin. It was wrapped by K-Sure and priced at 80-100bp and was arranged over 18 years. Royal Bank of Canada provided interest rate swaps.

A £100 million equity bridge loan – priced at Libor +110bp – came from Credit Agricole, DZ Bank, SMBC, and Woori Bank.

RiverLinx and lenders were advised by Allen & Overy, Hogan Lovells, Arcadis, Arup and Cowi. Meanwhile, TfL was advised by KPMG, Ashurst, Pinsent Masons, and Atkins.

European restructuring
Irish Schools Bundle 5

When Carillion collapsed, the Irish Schools Bundle 5 PPP, in which the defunct contractor was an equity investor and principal contractor, came to a standstill.

The social infrastructure PPP, which closed in 2016, was in dire straits, with six education buildings unfinished months before hundreds of pupils were due to arrive for the 2018 academic year.

The €100 million project had to undergo restructuring in order to ensure the delivery of all the planned schools. Carillion had to be structured out of the deal and new contracts were agreed with replacement contractor Woodvale, as well as with new facilities management and management services providers.

Woodvale was tasked with the completion of the three most advanced schools by August 2018 and undertake survey and preliminary work for the other three buildings in the bundle. The last of the six schools became operational in October last year (2019).

The two shareholders of the project SPV – Inspiredspaces Bundle 5 (Ireland) Limited – DIF Infra 4 Limited and Carillion – were previously to invest £9 million of equity in the project, divided equally between them.

After Carillion's collapse, the remaining shareholder took over the 25-year concession as 100% equity provider and brought the restructuring to a close on 1 October 2019.

The two original lenders – MUFG and Helaba – stayed on as senior debt and equity bridge loan providers. At the time of original financing, each bank provided 50% of the €90 million debt for a 26-year term loan priced in a range of 130-150bp over Euribor. The tenor is understood to have been extended by a year during the restructuring.

Advisers involved on the restructuring were William Fry, advising DIF on local law, Clifford Chance, acting for the lenders, and Phillip Lee, advising NDFA.

African mining
Guinea Alumina Project

Project financing for the Guinea Alumina Corporation (GAC) project to the tune of $750 million is one of the largest greenfield investments in the African nation and its largest ever project financing for a greenfield mining project.

The GAC project entailed the development of a 12Mtpa greenfield bauxite mine and associated infrastructure, including the upgrade of a 134km long multi-user rail system and a new port terminal. Bauxite exports began in August 2019.

Societe Generale (through SG CIB and Societe Generale de Banques en Guinée) acted as financial adviser, original initial lender and onshore security agent in the $750m project financing for the development.

The GAC project entailed the development of a 12Mtpa greenfield bauxite mine and associated infrastructure.

With overall project costs of $1.4bn, the debt package was provided by development finance institutions, export credit agencies, and international commercial banks, including the IFC ($330m), the ADB ($100m), EDC ($150m), with additional funds provided by two European development finance institutions, one of which is the Emerging Africa Infrastructure Fund.

Commercial banks participating include Societe Generale, ING Bank, Natixis, First Abu Dhabi Bank, Emirates NBD, and Mashreq Bank.

Such collaboration marks the first time multilaterals and international commercial banks have participated together on a greenfield mining project in Guinea.

The Multilateral Investment Guarantee Agency extended up to $129m of political risk insurance cover to commercial banks participating in the loan.

The project is being developed by Guinea Alumina Corporation, a wholly-owned subsidiary of Emirates Global Aluminium – the world's largest 'premium aluminium' producer and largest industrial company in the United Arab Emirates outside oil and gas.

It is the first phase of GAC's investment in the country, with the construction of an alumina refinery envisaged in a later second phase.

Estimates put the GDP impact of the project at $700 million annually, or 5.5% of Guinea's GDP.

African oil & gas
Gimi Floating LNG

A joint venture between Golar LNG and First LNG Holdings – an indirectly wholly owned subsidiary of Keppel Corporation – is currently converting an LNG carrier into the $1.3 billion Gimi FLNG vessel in Singapore for deployment to the Tortue West Field offshore Mauritania and Senegal.

The deal represents the first commercially syndicated project financing of an FLNG vessel in the international bank market. Financial close took place on 12 November 2019 with $600 million in equity and $700 million in debt, giving a debt/equity ratio of 54:46.

The debt package includes a 4+7-year amortising term loan with a 12-year underlying repayment profile post-COD, which is currently scheduled to take place in Q4 2022. Natixis, Clifford Capital, ING Bank, ABN Amro Bank each acted as underwriters, bookrunners and initial MLAs. DBS, SCB, Intesa and OCBC acted as the initial MLAs, while DBJ, CUB, CIC and Morgan Stanley acted as initial arrangers.

The donor vessel is the LNG Carrier Gimi previously owned by Golar and the conversion works are taking place at Keppel Shipyard in Singapore. Keppel engaged Black & Veatch to design, procure and commission the topsides, and liquefaction process via the use of its liquefaction technology which offers more flexibility and cost-efficiency in the liquefaction process. Gimi FLNG will be modelled on the Hilli Episeyo FLNG.

BP will charter the FLNG for a 20-year period, which will begin following the four-year conversion process – upon completion it will be delivered to and installed at Tortue West field off the coast of West Africa, where the vessel will liquify gas from the BP-owned offshore block. The Gimi FLNG vessel will produce at least 2.5 million tonnes a year of LNG in the first phase of BP's Greater Tortue Ahmeyim project.

Shearman & Sterling advised Golar LNG. The lenders were advised by Clifford Chance.

African transport
New Owendo International Port

The old port at Owendo, Gabon, had reached its max capacity of 4 million tonnes of general cargo, but in June 2018 an international consortium finished construction of a new port executed as a PPP, which then reached financial close the following year on 26 July 2019.

A joint venture – GSEZ JV – consisting of Olam International, Gabonese Caisse des Depots et Consignations (CDC) and the Africa Finance Corporation (AFC), signed off on the financing of the €305 million ($339.7 million) New Owendo International Port PPP (NOIP), which is being operated through the Gabon Special Economic Zone Ports (GSEZ Ports) project company. CDC is owned by the government of Gabon, while the AFC is one of the region's most prominent DFIs.

The deal was geared heavily towards the equity side, but nonetheless, including the AFC, the deal attracted three Africa-focused DFIs – two of those for the debt financing. PIDG member Emerging Africa Infrastructure Fund (EAIF) led the lender team which otherwise included the African Development Fund (AfDB) in an equally split €80 million debt package on a 15-year tenor.

French joint stock company and investment fund STOA acquired a 10% equity stake in GSEZ Ports in November 2019, just over four months after the financial close date. This shareholding arrangement left the GSEZ JV with 90% of the remaining shares.

The new port adds an additional 4 million tonnes of capacity to Gabon's coast, which is an important trade and logistics corridor for the Central African region. GSEZ Ports has a 30-year concession agreement from the government of Gabon to operate NOIP which is located 27km south of the capital city of Libreville.

The sponsors were advised by Linklaters, AECOM, and Royal Haskoning. Meanwhile, the lenders were advised by Clifford Chance, Project Lawyers, WSP, Marsh, Ernst & Young, Mazars and KPMG.

African refinancing
Societe Ivorienne de Raffinage

The refinancing of Société Ivoirienne de Raffinage's (SIR) historical debt by the Africa Finance Corporation is the *IJGlobal* African refinancing of the year.

This deal attracted a panel of African-based and international lenders proving that, if structured well, there is broad appetite for African debt.

SIR has an installed capacity of 3.8 million tonnes refining capacity per annum; it is currently the largest and most sophisticated operational refinery in West Africa, enjoying the largest revenues in Cote d'Ivoire.

An unfortunate mix of domestic and market challenges caused SIR to accumulate significant arrears, in particular for crude oil feedstock, thereby threatening the refinery's solvency and profitability.

The Africa Finance Corporate (AFC) stepped in as sole mandated lead arranger for a facility to repay these historical obligations, provide a long tenured facility, and reduce the interest rate of SIR's debt.

This deal attracted a panel of African-based and international lenders.

As a multilateral, AFC was able to offer longer term debt than most commercial banks, and ultimately successfully raised a €577 million structured debt financing for SIR. AFC's participation was for €192 million.

The facility comprises two Euro tranches with a 9-year maturity lent by Deutsche Bank, ICBC Standard Bank and LEAP. One tranche is a fixed-rate tranche with prepayment restrictions in line with expectations of institutional investors; the other is a floating rate tranche with tenor-reduction structures. West African CFA franc tranche with a 7-year maturity was lent by UBA, Bridge Bank and NSIA. The multi-currency facility was designed to appeal to a broad base of investors.

The long-term funding solution to refinance historical accrued debts will free up resources to enable SIR to make much needed investments in its current operations and upgrade its facility and production processes to align with current environmental emissions standards and expand its business.

An insurance guarantee programme underpinned by ATI (providing €255 million) with Texel acting as insurance broker enabled some investors to participate in the transaction that had not traditionally invested in Africa.

African power
Bridge Power

An Endeavour Energy-led consortium refinanced the $701 million first phase of its 424MW Bridge Power combined cycle project in Tema, Ghana – potentially mitigating risk for the second phase of the utility-scale project in a difficult market.

The Early Power consortium – consisting of Endeavour Energy, General Electric (GE) and Sage – signed a 20-year power purchase agreement in October 2016 with the Electricity Corporation of Ghana, with payments backed by a sovereign guarantee.

The first phase of the project was funded by $422 million in vendor financing from Mytilineos and GE on 18 December 2018, with the view to refinancing through senior debt facilities signed by commercial banks in the new year. GuarantCo signed a $50 million guarantee for the debt provided by the EPC contractors, which in turn began construction of phase one.

The requisite refinancing signed almost a year later on 14 December 2019 on a debt package totalling $510 million. The lenders were led by Standard Chartered Bank and include Absa Bank, Emerging Africa Infrastructure Fund, CDC Group, Hungarian Export-Import Bank, Societe Generale, and the Development Bank of Southern Africa. USAID joined the returning GuarantCo for debt guarantees on the deal.

The project has an overall cost of $953 million. Phase two will add 200MW of installed power capacity and when complete the power plant will provide at least 17% of Ghana's baseload energy supply. SCB is once again the MLA for phase 2.

The sponsors are being advised by Clifford Chance, Senet Corporate Solicitors, Allen & Overy and Marsh. The lenders are being advised by Norton Rose Fulbright, ENSAfrica, Indecs, HIS Markit, MOT MacDonald and BDO. Mytillineos is being advised by DLA Piper.

African renewables
Kahone and Toube Solar

The International Finance Corporation's (IFC) Scaling Solar programme in Senegal featured the 35MW Kahone and 25MW Toube solar projects, each with tariffs well below the West Africa average – $0.038 and $0.039/kWh respectively.

A sponsor consortium of Engie and Meridiam won out with its low bids out of 12 bids in total for the two projects, all of which were below $0.06/kWh. Senegal's ESRC chose the lowest bids on offer, but any one of the alternatives were well below the region average of $0.25/kWh, according to World Bank data.

The IFC has an overarching role as the transaction advisers to the government and the debt arranger, as per its responsibilities under the Scaling Solar Programme. The World Bank Group member signed on two separate debt packages for Kahone and Toube, with the other two lenders being Proparco and EIB. The debt on the smaller Toube site is marginally cheaper, but otherwise the €38 million ($41.3 million) loans carry a 19-year tenor.

Senelec is the offtaker of both the 25-year take-or-pay PPAs. MIGA provided political risk guarantees of €7.2 million for a 15-year period.

Engie and Meridiam took equal 40% stakes, while the government of Senegal – through sovereign fund FONSIS – retained a 20% stake in both projects.

The IFC's Scaling Solar Programme has shown the validity of photovoltaic as a cheap source of energy in Sub-Saharan Africa – the government has signed up for a total of 200MW, but only 60MW has been procured so far. As has been taking place in Zambia, a second round of projects may be forthcoming.

The sponsors were advised by Hogan Lovells. The government was advised by the IFC, Linklaters and JLT. The lenders were advised by Herbert Smith Freehills, Everoze, Marsh, and ERM.

IJGlobal Awards 2019

The Americas

Had it not been for the coronavirus pandemic, *IJGlobal* would have hosted its Awards Night for The Americas in March at an impressively more swell venue than previous years.

However, *IJGlobal* took the decision early on to cancel the awards night – as well as the 3-day Miami conference immediately prior to it – in the interests of the safety and well-being of our partners.

The *IJGlobal* Awards Night 2019 was to have been staged in The Pierre, New York, pulling in the great and the good of the infrastructure and energy finance community from across North and South America.

Before naming the winners, we at IJ are always keen to drive home the impartiality of our judging process which is famed for being the most equitably-judged in the infra community, relying on a team of independent, senior players active across the Americas.

Lacking the fanfare – and the all-important music quiz that keeps many guests rooted to their seats until the final minute – we are now delighted to announce the winners.

Winners in the North American transaction category are:

- Battery Storage – **Lawa'i Solar and Battery Energy Storage System**
- Power – **Hill Top Energy Center**
- Transmission – **Wataynikaneyap Power Transmission Project**
- Utility – **ESAP Modernization Project**
- Refinancing – **Gridflex Generation**
- Solar – **Recurrent Energy Module Safe Harbour Loan**
- Renewables portfolio – **Cypress Creek portfolio financing**
- Wind - Clearway – **Repowering Partnership Holdco**
- Mining – **Nevada Copper's Pumpkin Hollow**
- LNG – **Venture Global Calcasieu Pass**
- Midstream Oil & Gas – **Midship Project**
- Rail – **Hurontario LRT**
- Social Infrastructure – **Corner Brook Acute Care Hospital**
- Roads – **North Tarrant Express Segment 3C**
- Airports – **Newark Consolidated Rent-a-Car Facility**

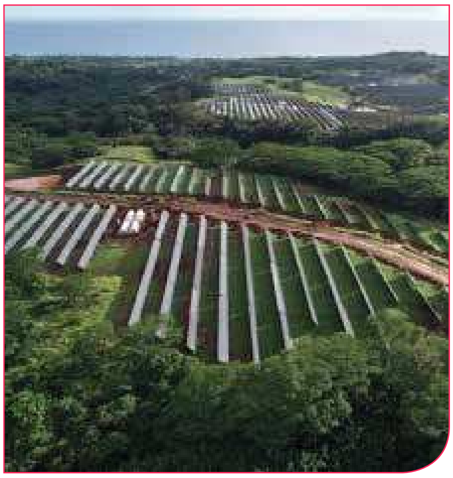
Winners in the Latin American transaction category are:

- Power – **Norte II CCGT**
- Export Finance – **GNA 1 Port of Acu**
- Midstream Oil & Gas – **Logum Logistica**
- M&A – **TAG Pipeline Acquisition**
- Upstream Oil & Gas – **Trident Acquisition Finance**
- Petrochemicals – **Braskem Idesa Refinancing**
- Transmission – **CRC Transmission Line**
- Refinancing – **El Dorado Airport**
- Renewables – **Pirapora II Solar PV**
- Distributed Power – **Ergon Private Placement**
- Telecoms – **Internet Para Todos**
- Rail – **Ferrocarril Central**
- Roads – **Autopista Al Mar 1**
- Water – **BRK Ambiental**

North American battery storage
Lawa'i Solar and Energy Storage

AES Distributed Energy's Lawa'i Solar and Energy Storage Project in Hawaii, the largest operational solar and storage system in the world, reached financial close on 1 July, 2019.

The project consists of a 28MW solar photovoltaic array and a 100MW five-hour battery storage system on the island of Kaua'i.



The plant was already online at the time of the financing, having been commissioned in January 2019. It operates as a peaker and provides 11% of the island's power.

The project sells its output to the member-owned Kaua'i Island Utility Cooperative under a 25-year power purchase agreement priced at $0.11/kWh.

Societe Generale provided the $40.6 million term loan financing for the project.

Silicon Valley Bank is also a lender.

Republic Services, the second-largest provider of non-hazardous solid waste collection, transfer, disposal, recycling and energy services in the US, was the tax equity investor. The company has invested in several solar energy projects owned by AES DE and its parent company, AES Corporation.

Advisers on the deal included:
- Akin Gump (borrower counsel)
- Norton Rose Fulbright (lenders' counsel).
- Mayer Brown (tax equity counsel).

As the cost of combined solar and battery storage continues to fall, the Lawa'i project will not remain the largest of its kind for long. In Hawaii alone, AES DE has a 30MW/120MWh and a 60MW/240MWh project under development in the state, with PPAs priced at $0.08/kWh.

North American power
Hill Top energy centre

Ares Management closed the $420 million project bond financing for its Hill Top Energy Center in March 2019. It was the first pure project bond financing of a quasi-merchant CCGT in PJM Interconnection.

Hill Top was already the talk of the town as far back as May 2018, when it was the only combined-cycle gas-fired project to clear a higher-than-expected capacity auction in PJM.

By August 2018, banks had been pitching to finance the CCGT with a term loan A, but the sponsor had different ideas, securing a fashionable gas netback and hitting the bond market instead.

In fall 2018, Ares was in talks to extend the project's gas netback from 6.5 years to between eight and 10 years, eventually landing an 8.75-year deal.

The $375 million 10-year notes were priced and sold into the US private placement market in March 2019, producing an all-in coupon below 5.5%.

The debt was sized to achieve minimum DSCRs of 1.50x, amortizing to a roughly $200/kW balloon payment at maturity.

Kroll Bond Rating Agency gave the notes a BBB- rating, which is considered the sweet spot for private placement investors.

The financing also included a $45 million revolving credit facility.

Morgan Stanley was the placement agent on the bonds.

EQT Energy was the hedge provider.

Following the debt financing, Ares sold a 42% stake in the project to French fund manager Ardian Infrastructure Partners and a 16% stake to Israeli insurance company Menora Mivtachim Insurance.

PJ Solomon acted as financial adviser on the equity raise.

The plant's total project cost is around $725 million, putting the leverage ratio at around 57%.

The project is expected to be online in April 2021.

Kiewit is the engineering, procurement and construction contractor.

General Electric is the turbine supplier.

North American transmission
Wataynikaneyap Power Transmission project

Wataynikaneyap Power and Fortis reached financial close on a C$1.9 billion ($1.4 billion) transmission project in northwestern Ontario in October 2019, in a deal lauded for being the first such project to be developed through majority ownership by First Nations, the largest Indigenous-led infrastructure project in Canada, and the most far-reaching First Nations grid connection in Ontario's history.

Wataynikaneyap Power is a licensed transmission company regulated by the Ontario Energy Board and majority-owned by 24 First Nations communities in northwestern Ontario, in partnership with Fortis and other private investors.

The debt comprises:
- A loan of up to C$1.34 billion ($1 billion) from the Government of Ontario, and
- A C$680 million ($514 million) loan from a syndicate of five Canadian banks.

The complex and extensive commercial, regulatory and strategic issues garnered the collaboration of numerous Canadian law firms, including:
- Fasken (for the Province of Ontario)
- Torys (for the sponsor)
- Stikeman Elliott
- Davies
- Osler Hoskin & Harcourt
- McCarthy Tétrault
- Blaney McMurtry
- McMillan

The financing needed to be synchronized on many fronts.

Besides the dual-tranche debt, there was a complex equity financing involving a C$220 million loan from two Canadian life insurance companies, supported by a guarantee provided by the Ontario Ministry of Finance under the Aboriginal Loan Guarantee Program.

The 1,118 mile (1,800 km) transmission line is expected to be completed by 2023.

Valard, a subsidiary of Quanta Services, is the EPC contractor.

The project will supply energy to more than 14,000 First Nations people or residents across the region helping to eliminate reliance on costly and environmentally unsustainable diesel.

The project was originally developed by Renewable Energy Systems Canada. Fortis acquired its 49% stake in 2016.

North American utility
ESAP Modernisation Project

Ottawa's project to modernise, maintain and operate the district energy system that heats 80 buildings and cools 67 buildings in Canada's capital region reached financial close on 29 May (2019). The Government of Canada placed restrictions on the use of long-term private capital which required the winning consortium, Innovate Energy led by PCL Investments, to structure the project in a way not done before in the Canadian PPP market.

The financing comprised an all bank revolver with six banks providing C$500 million ($349.3 million) in debt.

The project forms part of the government's Energy Services Acquisition Program (ESAP) and was structured as a DBF(OM). The O&M obligations continue after construction completion, which is typically not the case when there is no long term capital involved in the financing of the project.

Innovate Energy was selected as preferred bidder in March (2019) beating Rideau Energy Partners in a two horse race. The winning team is made up of PCL Investments Canada, ENGIE, Black & McDonald Capital, Black & McDonald, PCL Constructors Canada and WSP Canada.

The financing comprised an all bank revolver with six banks providing C$500 million ($349.3 million) in debt. They were ATB Financial, Bank of Nova Scotia, Desjardins, HSBC, SMBC and TD Bank. The banks provided two interim payments and a substantial completion payment. There was nominal equity of C$100 million given there is no long-term debt.

Equity was provided by PCL Investments Canada (C$45 million), ENGIE (C$45 million), Black & McDonald Capital (C$10 million). Construction started in 2019 and the concessionaires plan to be finished come 2025. Once complete Innovate Energy will operate and maintain the new system for 35 years until 2055.

Part of the project includes making the existing heating system safer and consume more energy efficient by converting it from steam to low temperature hot water. Building and decommissioning plants, upgrading existing facilities in Ottawa and Gatineau, includes the Cliff plant near the parliament and switching from steam to electric chillers.

North American refinancing
Gridflex Generation

It's not every day a 1.5 GW portfolio of 20-year-old merchant peakers gets 11-year, fixed-rate financing, but Rockland Capital was able to secure just that with its GridFlex Generation deal last September.

Rockland assembled the three-plant GridFlex portfolio in 2017 and 2018. It acquired the 676 MW Lee gas-fired unit in Lee County, Illinois, from Dynegy for $180 million in 2017 and later snapped up a larger portfolio from AES Corporation subsidiary Dayton Power and Light for $241 million. This portfolio included the 586 MW Tait dual-fuel project in Dayton, Ohio, and the 236 MW Montpelier gas-fired facility in Poneto, Indiana.

The three peakers—Lee, Tait and Montpelier—are located in the ComEd and RTO regions of PJM Interconnection.

The acquisitions were financed with project debt. Lee had a $220 million, seven-year term loan package, while the portfolio housing Tait and Montpelier – known as Kimura Power – was financed with a $190 million, seven-year term debt package.

Following a higher-than-expected PJM capacity auction in 2018, Rockland saw an opportunity to optimize the capital stack.

The resultant transaction was a $377 million 4(a)(2) private placement with an 11.3-year maturity and a 7.4-year weighted average life.

Cantor Fitzgerald and Crédit Agricole were the placement agents.

The notes were marketed to 35 investors and priced at 325 basis points over Treasurys in July, producing a 5.21% all-in coupon. It was around two times oversubscribed.

The deal structure included a capacity reserve account, providing protection to investors in low capacity price scenarios.

Kroll Bond Rating Agency rated the issuance BBB-.

Credit Agricole also chipped in with ancillary facilities totaling $46 million.

North American Solar
Recurrent Energy Module Safe Harbour loan

Recurrent Energy signed a $182 million dual-tranche solar safe harbour loan on 10 June, 2019. It was among the first of its kind, paving the way for a wave of deals that peaked toward the end of the year.

The driver behind the deals was the step down of the US investment tax credit for solar from 30% to 26% at the end of 2019.

Safe harbor loans are bespoke financing products that come in a range of shapes and sizes.

The Recurrent deal's two tranches reflected the different yield and risk appetites of the lenders.

Features include carefully crafted cash sweeps that kick in in various circumstances, including the sale or deployment of the panels, and a backstop.

NordLB and Rabobank were coordinating lead arrangers on the $124 million senior tranche, while Nomura led and underwrote the $57 million junior tranche. The senior loan closed on 5 September and the junior loan followed on 18 September.

The deal was structured to give lenders certainty of cash flow without their needing to know the exact list of projects in which the modules would be deployed.

Features include carefully crafted cash sweeps that kick in in various circumstances, including the sale or deployment of the panels, and a backstop provided by a back-ended fixed amortization schedule.

The structure ensures the full repayment of debt and strong collateral coverage while mitigating the risk of delays in the deployment schedule and ITC eligibility.

The transaction also provides Recurrent with the flexibility to optimize and adjust its development pipeline as it bids for new solar projects over time.

Recurrent will use the proceeds of the loans to buy modules totalling 400 MW from its parent company Canadian Solar and 100 MW from Risen Energy Co.

Recurrent expects the modules to safe harbor projects with a combined capacity of 1,544 MW (DC).

The debt will be repaid when the modules are assigned to individual project SPVs.

North American renewables portfolio
Cypress Creek portfolio financing

Cubico Sustainable Investments reached financial close on 29 December, 2018, 14 June, 2019, and 19 August, 2019 on a complex tax equity and back levered debt financing, totalling $406 million, for a portfolio of three US solar projects in the US collectively known as Project Thor.

As foreign investors clamor to get into the US renewables market, London based Cubico broke through in 2018

As foreign investors clamor to get into the US renewables market, London based Cubico broke through in 2018, lining up the acquisitions of its first three projects in the country from Cypress Creek Renewables.

The portfolio comprises the 162 MW Wagyu project in Texas, the 106 MW Palmetto project in South Carolina and the 98MW Huntley project also in South Carolina.

The Wagyu project is particularly notable as one of the growing number of Texas solar projects to be contracted under a hedge rather than, or in addition to, a power purchase agreement.

Merchant risk was mitigated by cross-collateralizing the back levered debt across the three projects and by including a tracking account to help meet balancing obligations under the energy hedge. Since the hedge provider did not provide a tracking account, this feature had to be provided by the lenders, a very innovative step.

The other offtake contracts were either corporate PPAs or busbar utility PPAs. The lenders of the $118 million back levered debt were HSBC, NordLB and Rabobank.

The tax equity investments were structured as inverted leases. US Bank was the tax equity investor.

Advisers included:
- CCA (financial)
- Novogradac (financial)
- Winston & Strawn (equity counsel)
- Milbank (lender counsel)
- Nixon Peabody (tax equity counsel)
- Enertis (independent engineer)
- WSP (technical adviser)

Renewable Energy Systems was EPC alongside the developer, Cypress Creek.

The first of the three projects to close, Palmetto, came online in August 2019.

North American wind
Clearway Repowering

Clearway Energy closed the $352 million refinancing of its Wildorado and Elbow Creek wind repowering projects in Texas on 14 June, 2019.

As the first generation of US wind projects, built in the early 2000s, grows old, developers are seeking ways to extend their economic useful lives while also renewing hard-won federal tax incentives which have since expired.

But a wind repowering is much more complicated than just a major repair job. In order to qualify for the US wind production tax credit, wind repowerings must meet the 80:20 rule, whereby old components must make up no more than 20% of the fair market value of the repowered project.

Seasoned lenders and tax equity investors are scrutinizing independent engineers' reports for wind repowerings like never before.

The standout financing of the Wildorado and Elbow Creek was further complicated by preferred equity brought in at the holding company level from Southern Power and a partnership with Clearway Energy's sponsor company, Clearway Energy Group, which provided the safe harbored turbines.

The 161MW Wildorado project is located in Oldham County and has a power purchase agreement with Southwestern Public Service Co. through 2027.

The 238MW Elbow Creek project, in Howard County has a hedge with an investment grade counterparty through 2029.

The lead arrangers were SMBC and Santander.

The tax equity was provided by MidAmerican Energy. The tax equity was funded in two chunks when Elbow Creek and Wildorado came online, in November 2019 and February 2020, respectively.

Clearway has invested about $111 million in equity in the projects.

Such repowering deals are likely to become a template for many more that will proliferate over the next few years.

North American mining
Nevada Copper's Pumpkin Hollow

With the demand for copper due to soar in the upcoming years driven the by the maturing electric vehicle market on account of the metal's conductivity. Nevada Copper Corporation closed on its $115 million project financing for its Pumpkin Hollow Copper Project in Yerington Nevada.

In May 2019 the company achieved financial close on the $115 million project financing provided entirely by KfW IPEX-Bank, supported by a UKEF untied guarantee.

The facility reduces senior debt interest margins from the broader financing agreement, saving the company $5 million calculated over the tenor.

The debt package has a nine year tenor maturing in 2028. The terms of the loan allow free excess cash flow to be utilised on the Open Pit development, exploration and payment of dividend.

In addition to the KfW project finance facility, Nevada Copper also entered into a $35 million working capital facility with Concord Resources and offtake agreements with Aurubis and Concord Resources. Finally, these facilities were layered onto a $70 million stream financing in September 2018 which Nevada Copper had entered into with Triple Flag. Investment into the mine to date has been over $350 million.

Nevada Copper corporation also entered into a $26.4 million cost overrun facility that will be drawn out of the $30 million equity offering that was raised two weeks prior to closing the project financing.

The mine started commercial operation in December 2019. Milbank advised KfW and Shearman & Sterling advised Nevada Copper.

The project, a unique example of a single asset company tapping into ECA-financed projects, has two permits, including an underground mine and a large scale open pit project that is advancing toward feasibility status which is due in 2021.

The underground mine has a total proven and probable ore reserve of 574 million tonnes, containing 5.22 billion pounds of copper, 990,000 ounces of gold, and 33,000 ounces of silver.

North American LNG
Venture Global Calcasieu Pass

Venture Global LNG reached financial close to construct and commission the Calcasieu Pass LNG facility and the associated TransCameron pipeline in Cameron Parish, Louisiana on 20 August 2019, raising project costs from 13 banks and a number of institutional investors and financial institutions.

The financial close has been four years in the making, with the sponsor raising $5.8 billion to finance construction. Stonepeak Infrastructure Partners provided $1.3 billion in equity with Venture Global LNG to provide around $719.50 million.

The coordinating lead arrangers on the bank debt are Banco Santander, Bank of America, Bank of Nova Scotia, Goldman Sachs Bank USA, ICBC, ING Capital, JP Morgan Chase Bank, Mizuho Bank, Morgan Stanley Senior Funding, Natixis, Nomura Securities International, RBC, SMBC.

The project has 20-year LNG sale and purchase agreements with Shell, BP, Edison, Galp, Repsol and PGNiG.

The proceeds of the debt and equity financing will fully fund the balance of the construction and commissioning of Calcasieu Pass. Funding will also see the development of the 10 MPTA Calcasieu Pass and the continued development of Venture Global's 20 MTPA Plaquemines LNG and 20 MTPA Delta LNG facilities.

Kiewit is the EPC contractor on the Calcasieu Pass facility. All necessary permits have been secured for Calcasieu Pass, including FERC authorisation and non-FTA export authorisation from the US Department of Energy.

Morgan Stanley in November 2018 provided Venture Global with a $220 million bridge facility for the construction of the facility. Morgan Stanley and Goldman Sachs had already previously raised $635 million in equity for the Calcasieu Pass LNG.

Construction began in February (2019) and the project is expected to reach its commercial operations date in 2022.

The project has 20-year LNG sale and purchase agreements with Shell, BP, Edison, Galp, Repsol and PGNiG.

Morgan Stanley acted as financial adviser to Venture Global LNG with Latham & Watkins providing legal counsel. Simpson Thacher acted as legal counsel to Stonepeak and Skadden provided legal counsel to the lenders.

North American midstream oil & gas
Midship project

Cheniere Energy, a significant LNG producer, and EIG Global Energy Partners, energy industry capital financier, are cosponsors of the Midship Pipeline Company, a project company aiming to create new transportation capacity from developing gas production regions STACK and SCOOP.

It will have a capacity of up to 1,440,000 dekatherms per day

The proposed Project consists of almost 200 miles of 36-inch-diameter new-build pipeline beginning in Kingfisher County, Oklahoma and terminating at interconnects with existing interstate natural gas pipeline near Bennington, Oklahoma, for delivery to Gulf Coast and Southwest destinations. It will have a capacity of up to 1,440,000 dekatherms per day.

The new-build facilities will include a total of three mainline compressor stations, seven receipt meter stations/taps and four delivery meters, in addition to two laterals.

Societe Generale acted as financial adviser, joint lead arranger and administrative agent for the $680m non-recourse financing of the Midship Project. The tenor of the debt is 11.5 years.

The financing provided the sponsors a unique ability to obtain increased leverage at financial investment decision relative to the firm transportation agreements that were executed at the time of closing.

The sponsors intend to expand the pipeline capacity or exectute additional firm transportation agreements in the near term.

Other mandated lead arrangers include Commonwealth Bank of Australia, Credit Agricole Corporate and Investment Bank, ING Capital LLC, The Korea Development Bank, New York Branch, National Australia Bank Limited, Natixis, Bank of China (New York Branch), Sumitomo Mitsui Banking Corporation. Societe Generale recruited these lenders through a clever process: it issued requests for proposals to 20 potential lenders to obtain competitive terms for the project sponsors.

The RFP approach created competitive tension and achieved terms exceeding the sponsors' expectations.

Nine were selected after being asked to receive credit approval for $100 million to provide a buffer, but all were signed off.

A cash sweep mechanism was implemented towards the backend of the repayment profile to mitigate and deleverage the term loan if additional contracts are not obtained.

North American rail
Hurontario Light Rail Transit

After a long wait, the Mobilinx Hurontario General Partnership consortium reached financial close on the C$2.1 billion Hurontario Light Rail Transit project in October 2019.

The plan will see 18km of new dedicated rapid transit between Port Credit GO Station in Mississauga to the Gateway Terminal at Steeles Avenue in Brampton. The line will have 19 stops with connections to GO Transit's Milton and Lakeshore West rail lines.

Mobilinx raised C$262.8 million in senior secured bonds and a C$487.29 million short-term senior credit facility to finance the project. Four banks provided the short-term construction bank facility: National Bank of Canada, HSBC Bank Canada, SMBC and Mizuho Bank.

The senior secured bonds were split into two tranches. The first was a C$122.9 million medium-term bonds due in 2039 and a long term bond for C$139.7 million due in 2054. The medium term bond has a coupon of 3.276% and the long term bond has a coupon of 3.642%. The long-term bond was underwritten by National Bank Financial and HSBC Bank Canada. Progress and milestone payments are to be provided by Infrastructure Ontario and Metrolinx.

The debt package was supported by C$56.4 million in equity from Metrolinx and construction period progress payments of C$1.2 billion. John Laing is understood to have invested £13 million for a 35% interest in the concession team.

The short term senior credit will be repaid on substantial completion of construction with proceeds Metrolinx receives from the substantial completion payment and equity which will be backed by letters of credit prior to contribution date. The consortium will receive a completion payment of C$604.89 million.

Following completion, Mobilinx will be responsible for the O&M and rehabilitation of the LRT system and the 28 vehicles for a period of 30 years.

North American social Infrastructure

Corner Brook Acute Care Hospital

Just three year after the provincial government of Newfoundland and Labrador approved the project, the winning consortium led by Plenary Group carried the Corner Brook Acute Care Hospital to financial close on 9 August 2019.

The team was selected as preferred bidder in June (2019) with other team members including, Plenary Group (Canada), PCL Constructors Canada, PCL Investments Canada, Marco Services, Parkin Architects and B+H Architects JV, John Hearn Architects, Johnson Controls Canada, Smith and Anderson Consulting Engineering, WSP Canada, RV Anderson Associate, GJ Cahill and Plan Group.

The new Western Memorial Regional Hospital in Corner Brook has a price tag of C$699 million ($528 million). The financing was split into three packages, a long term bond for construction plus 30 years, a medium term bond with over 10 years and a short term bridge loan that will be repaid in 30 months.

TD Securities and BMO were the bond underwriters. The bonds were sold to Canada Post Corporation Registered Pension Plan, Fiera Capital Corporation, Manufacturers Life Insurance Company, Manulife Canadian Private Debt Fund and Phillips, Hager & North Investment Management.

The equity amount was C$29 million with Plenary Group providing C$23.2 million and PCL providing C$5.8 million.

The Plenary-led team beat Atlantic Healthcare Partnership and was shortlisted for the project in June 2018 but failed in the homestretch. The project was first announced in August 2017 with an RFQ issued in January 2018.

The new hospital will include the same services currently provided at the existing Western Memorial Regional Hospital. In addition, it will have an expanded cancer care program which includes radiation services. Construction is expected to take over four years with a 30-year concession to follow thereafter.

North American roads

North Tarrant Express

The $2 billion North Tarrant Express (NTE) P3 project reached financial close in 2013, with the combination of the pre development agreement for future expansions built into this original contract resulting in the Texas Department of Transportation realizing the value of options to extend and expand the project cementing its position as a true landmark among US P3 transactions. The $910 billion Segment 3C builds on the model used to close the original project.

The owners led by Cintra financed the project with $659 million in private activity bonds (PABs). The bonds were issued by the Texas Private Activity Bond Surface Transportation Corporation and underwritten by Bank of America Merrill Lynch and Barclays Capital. The trustee was Citibank. The repayment of bonds will begin on 30 June 2047 and will mature on 30 June 2058. Bonds have a coupon of 5.00%.

The equity investment amount is $160 million and the total value of the project is $910 million. PABs were approved in July (2019) though the total amount at that point was $750 million. The PABs were secured by revenues from expressway segments 3A, 3B and 3C.

The project will rebuild 6.7 miles from north of US 81/287 (Heritage Trace Parkway) to Eagle Parkway in Denton County. It will include, reconstructed main highway lanes, expanded frontage roads and two TEXpress managed lanes.

A TIFIA loan was not used for 3C as the developers would likely have had to renegotiate the existing 3A/3B loan as part of the 3C loan process. The consortium NTE Mobility Partners Segments 3 comprises Cintra (53%), APG (28.8%) and Meridiam (17%). The project includes the innovative transfer of the obligations to build a $270m expansion in 2040 from TxDOT to the developer, and incorporated a mechanism for the transport department to accelerate or delay the future expansion at its discretion.

This obligation is also expected to be funded and financed by project cashflow with no funding contribution from TxDOT.

North American airports
Newark ConRAC

Conrac Solutions Capital turned heads in April 2019 when it reached financial close on the new Consolidated Rent-A-Car (ConRAC) facility at Newark Liberty International Airport using a unique financing structure that could become a national model.

The $500 million project was privately financed with Conrac Solutions leasing the facility for 35 years from the Port Authority of New York and New Jersey (PANYNJ). Equity came from Related Fund Management and Fengate Asset Management. The debt financing package was led by MUFG, CIBC and NBC.

The deal includes a fixed-price, design-build contract for construction with a joint venture of Austin Commercial and VRH Construction. The financing was supplied by the equity partners to be repaid solely out of proceeds received from the Customer Facility Charge (CFC) applied to rental car transactions. PANYNJ's contribution to the financing was reined in at $130 million.

Unlike similar projects at other major US airports, that can put airports at risk for availability payments, this financial structure was made possible by CS Capital and its equity partners, Related and Fengate, with sponsorship from the car rental industry, and the foresight of the Port Authority to embrace an innovative approach.

The project encompasses all elements of a P3 – design, construction, financing, operations, maintenance and lifecycle management throughout construction and the 35-year lease period but is not a P3. The facility is being constructed on a 16.65-acre site, with 2,925 public parking spaces and 3,380 rental car spaces to support 10 rental brands. Construction started in May with completion of the public parking area in 2021 and the ConRAC in 2023.

Latin American power
Norte II

This refinancing transaction was special because it marked the first time that a domestic company has had KEXIM guarantee a project bond for overseas infrastructure assets.

KST Electric Power Co. – which is a consortium between KEPCO, Samsung and engineering company Techint – has refinanced the 433MW Norte II combined-cycle gas-turbine power plant in Mexico with a private placement that was partially guaranteed by the Export-Import Bank of Korea.

Operational since May 2013, the plant is located in Chihuahua, Mexico. It was tendered in 2010 by Mexican state-owned utility Comisión Federal de Electricidad (CFE) with a 25-year tenor, under an independent power producer (IPP) contract.

Crédit Agricole acted as the placement agent for the bonds, which refinance debt incurred during the development of the power plant.

The issuance of the bonds was split into two tranches. A $250 million 18-year bond was covered by the KEXIM guarantee, and $151.27 million of 18-year paper was an uncovered bond.

The bonds benefiting from the wrap were priced at 3.30% while the uncovered bonds were priced at 5.7%.

The covered bonds were placed with international investors while the uncovered notes were sold to Korean investors.

Law firm Clifford Chance advised KEXIM and the investors on the transaction.

SMBC, Crédit Agricole and KEXIM provided the original financing for the $420 million project in 2011 in the form of a $325 million three-tranche loan.

The consortium invested the remaining $95 million.

Shareholding in the consortium breaks down:

- KEPCO - 56%
- Samsung - 34%
- Techint - 10%

Latin American export finance
GNA 1 Port of Açu

This transaction was especially important to Brazil because of the size and design of the asset – an LNG regasification plant feeding several power plants in a port located close to one of the main offshore oil and gas production hubs in the country.

A novel financial structure also makes it a special deal: in a dual-currency transaction, an international development bank backed by an ECA has guaranteed a national development bank.

An SPV comprising Prumo Logistics, BP and Siemens financed the development, construction and operation of an LNG-to-power project located in the Brazilian state of Rio de Janeiro.

The companies created the SPV - UTE GNA I Geração de Energia (commonly called GNA I) - to implement the project, which is part of the largest thermal power complex in Latin America, located at the Porto do Açu region.

The GNA I project is expected to start commercial operation in 2021. It includes an integrated 1.3GW combined cycle gas turbine (CCGT) based-fired power plant, an LNG import marine terminal, a transmission line, and the expansion of an existing substation.

The plant will be linked to Brazil's electrical grid (SIN) and the capacity and energy will be sold under regulated PPAs executed with 36 distribution companies. Financial close was achieved on 5 August 2019.

The last part of the financing was a $288 million, 15-year loan provided by the World Bank Group's IFC, which was disclosed on 3 April and signed on 15 March. This loan was provided in local currency.

GNA I had already signed a R1.76 billion (approximately $475 million, at exchange rates of closing date) with BNDES, which received a guarantee from KfW IPEX-Bank and was supported by German ECA Euler Hermes Aktiengesellschaft.

The guarantee transaction relates to a contract with Siemens, which will provide the turbines for the gas-fired plant, and has a contract for the turnkey construction of the plant, in a consortium with Andrade Gutierrez.

The SPV split is:

- Gas Natural Açu (GNA) – 67%
- Siemens Energy and Siemens Financial Services – 33%

The main shareholder GNA and is owned by:

- Prumo Logistics – 70%
- BP Global Investments – 30%

Latin American petrochemicals
Braskem Idesa refinancing

Petrochemical company Braskem Idesa, a joint venture between Brazil's Braskem and Mexico's Grupo Idesa, burst into the international capital markets in 2019 with a well-received $900 million senior secured offering to refinance the largest petrochemical plant in Latin America.

Citi, Sumitomo Mitsui Banking Corp and Santander were the active bookrunners on the 10 year non call five deal, which was priced with a 7.45% coupon in November.

The deal won over investors despite weaknesses in the global polyethelyne market and rising political risk in Mexico, and was oversubscribed. The transaction also included innovative fall-away provisions so that the debt becomes more like a typical corporate high yield bond as older project finance loans are refinanced.

The proceeds were used to refinance the Etileno XXI petrochemical complex in Nanchital de Lázaro Cadenas, Veracruz, which came online in April 2016.

Braskem owns a 75% stake in the JV, while Grupo Idesa holds the remaining 25%. Braskem is in turn owned by Brazil's Odebrecht.

The sponsors won an ethane supply agreement from PEMEX in 2009 as a result of a process carried out by Goldman Sachs, Hogan Lovells and Enerchem TEK. The plant produces 1 million tons of polyethylene per year.

Construction of the project was originally financed with loans totaling $3.193 billion from 16 financial institutions – including commercial banks and development finance institutions. Brazil's BNDES ($623 million), Export Development Canada ($300 million), the International Finance Corporation ($285 million) and the Inter-American Development Bank ($285 million) provided the largest tickets.

Total value: $900 million
Tenor: 10 year non call five
Coupon: 7.45%
Ratings at issuance: BB-/BB
Active bookrunners: Citi, Santander, Sumitomo Mitsui Banking Corp
Passive bookrunners: Banca IMI, BBVA, Mizuho
Trustee: Deutsche Bank Trust Co
Advisers: Paul Hastings, White & Case, Milbank, Ritch Mueller.
Pricing date: 25 November 2019
Financial close date: 2 December 2019


Winner of the
IJ GLOBAL AWARDS
2019
Braskem Idesa, committed to the petrochemical industry of Mexico with its large-scale project.
Braskem Idesa

Latin American midstream oil & gas
Logum Logistica

Logum Logistica – a company controlled by Petrobras, Raízen, Copersucar and Uniduto – signed a R1.8 billion ($337 million) financing with the National Bank for Economic and Social Development (BNDES), to expand its ethanol pipeline and storage infrastructure in January 2019.

The funds will finance about 1,300 km of polyducts for transporting ethanol as well as collection and delivery terminals in Uberaba (Minas Gerais), Ribeirão Preto (São Paulo), and Guarulhos (São Paulo), besides investments in the expansion of the Petrobras RP18 pipeline.

Of the funds, R960 million was used to finally retire a bridge loan originally provided by BNDES in 2011, which had been renewed fourteen times on a short-term basis. The tenor of this portion of the loan is 17 years.

The remaining R850 million will be used for new investments and is to be repaid in 24 years.

The long-term loan brings the amount invested by Logum to R3.3 billion since its formation in 2011.

The deal was impressive not only because of its size but also because of the complex negotiations around the terms and conditions of the termination of the repeatedly extended bridge loan.

Besides corporate guarantees provided by the sponsors, the security package included the fiduciary sale of ethanol by Logum, a pledge of Logum shares, the fiduciary assignment of rights arising out of Logum's services and operational agreements with third parties, and surety letters provided by financial institutions.

Total value: R1.8 billion ($337 million)

Sponsors: Petrobras, Raízen Energia SA, Raízen Combustíveis SA, Uniduto Logística SA, Copersucar SA

Borrower: Logum Logistica

Lender: BNDES

Tenor: 24 years

Bridge loan guarantors: Banco Bradesco, Banco Santander (Brásil), ING Bank (São Paulo branch)

Advisers: Mattos Filho

Financial close date: 3 January 2019

Latin American M&A
TAG Pipeline acquisition

Petrobras' sale of a 90% stake in its gas pipeline subsidiary Transportadora Associada de Gás (TAG) to France's Engie and Canadian pension fund Caisse de dépôt et placement du Québec was the largest asset acquisition, privatization and acquisition financing in Brazilian history when it closed in June 2019 after years of tireless work.

Petrobras launched the privatization process in September 2017, putting 47% of the country's entire gas infrastructure up for sale. The huge portfolio comprises 4,500 km of gas pipelines, 12 compressor stations and 93 city gates in the north and northeast regions of Brazil offered for sale to private investors.

Petrobras selected Engie and CDPQ as preferred bidders in 2018 over rival bids from Mubadala Infrastructure Partners / EIG Global Partners and Macquarie / Itausa, but the PB selection only marked the start of a lengthy regulatory and legal process spanning a year of political uncertainty – including presidential elections.

Engie and CDPQ financed the purchase with more than $6 billion of debt in two currencies, including R14 billion in seven-year local debentures and a $2.45 billion eight-year syndicated term loan.

Since virtually all TAG's revenues are in Brazilian reais, lead arrangers BNP Paribas, Crédit Agricole and Itaú provided an exchange rate hedge for the term loan. The contingent hedge structure is unusual in Brazil as the premium was deferred to deal close rather than being paid up front.

Mandated lead arrangers (term loan): BNP Paribas, Crédit Agricole, ING, Mizuho, MUFG, Societe Generale, SMBC

Coordinating banks (debentures): Bando do Brasil, Bradesco BBI, Itaú BBA

Legal advisers: White & Case, Lobo de Rizzo, Jones Day, Stocche Forbes, Mayer Brown, Tauil & Chequer Advogados, Cescon Barrieu Flesch & Barreto Advogados

Financial advisers: Citi, Morgan Stanley, Santander

Insurance adviser: Willis Towers Watson

Total value: R31.5 billion ($8.6 billion)

Total debt: $6 billion

Total equity: $2.4 billion

Upstream oil & gas
Trident Energy acquisition finance

London-headquartered oil and gas company Trident Energy last year closed the first reserve-based lending transaction in Brazil since new regulations were issued in May 2019.

The borrower used the proceeds of the $665 million loan to finance its acquisition of 10 oil fields in the country from Petrobras, which also marked the company's entrance into a new geographic market.

Although loans backed by oil reserves had theoretically been an option in Brazil before, no such deals were signed until the country's oil and gas regulatory agency, ANP, issued new regulations making the sales and purchase agreements clearer.

Sumitomo Mitsui Banking Corp, Crédit Agricole and ING Bank provided the debt package for Trident, which was signed in July, just two months after the new regulations were issued.

Trident acquired the assets through local subsidiary Trident Energy do Brasil, paying $851 million in two installments – a $53.2 million disbursement on signing the contract and a second $797.8 million payment on the closing date. Under the terms of the deal, Petrobras could receive an additional payment of up to $200 million depending on future oil prices.

The assets comprise 10 oil fields in shallow water clusters in the Campos Basin, off the coast of Rio de Janeiro. The assets are grouped into two clusters called Enchova and Pampo. The sale was part of Petrobras' strategy to sell 70% of its 254 assets in mature and shallow water fields, a plan announced in January 2019. Trident won the assets in a competitive sale process.

Total value: $851 million

Debt value: $665 million

Borrower: Trident Energy

Private equity sponsor: Warburg Pincus

Mandated lead arrangers: Crédit Agricole, ING Bank, Sumitomo Mitsui Banking Corp

Advisers: Herbert Smith Freehills, Walkers, Pinheiro Neto, White & Case, Mattos Filho, Machado Meyer

Signing date: 24 July 2019

Latin American Transmission
Celeo Redes Chile Transmission

This was a remarkable transaction to fund a transmission line in Chile, the first of its kind in the country. A single asset manager private placement that included construction risk and a delayed-draw of the notes, the transaction was also notable for carrying a 30-year tenor.

Celeo Redes Chile (CRC Transmisión) sponsored the portfolio that included both brownfield and greenfield projects, totaling more than 550km of transmission lines and eight substations.

The sponsor issued a $365 million, 30-year bond, through its subsidiary Casablanca Transmisora de Energía, to Allianz Global Investors, which also acted as structuring agent on the deal. The debt priced at 5.15% and the notes are interest-only for more than 10 years.

Additionally, the financing also included a $22 million VAT facility from Santander.

The finance structure was innovative for both private placement investors and rating agencies. It required a project finance structure with usual covenants, EoDs and security package to maximize leverage while accommodating the brownfield asset and the two large construction projects.

The structure also had to mitigate construction risk, especially because the project had less than 50% of the rights of ways for the transmission lines and substations at closing date.

Another mitigated risk referred to the tariff reset mechanism. The tariff is fixed for 20 years and then becomes subject to a 4-year tariff reset. Revenues are a mix of Chilean pesos and dollars.

Proceeds of the private placement were used to refinance the 52km Diego de Almagro Transmisora de Energía (DATE) project and fund the construction of the CASTE and MATE projects.

CASTE comprises three subprojects. The main element is a 106.84km, 220kV power line stretching between Melipilla and Viña del Mar, located in the regions of Valparaíso and Metropolitana, respectively. The project also contemplates the construction of two substations, Nueva Casablanca and La Pólvora.

The Mataquito-Hualqui (MATE) project – which includes 11 subprojects – is a 360km transmission line.

Spain's Elecnor owns a 51% stake in Celeo Redes, while the Dutch pension fund APG Asset Management controls the remaining 49% through its APG Infrastructure Pool 2012.

Latin American Refinancing
El Dorado airport

Sociedad Concesionaria Operadora Aeroportuaria Internacional (OPAIN) holds the concession to operate, expand, modernize and finance the El Dorado International Airport in Bogota, Colombia's capital city.

The two key sponsors of OPAIN are the Latin American conglomerate Grupo Argos (35%) and the airport and toll road concession business owned by Argos, Odinsa (30%).

OPAIN issued 4.09% senior secured notes through a private placement to refinance the El Dorado airport, which is the third busiest in Latin America in terms of traffic. Proceeds were used to repay total outstanding credits abroad, in dollars, and to fund continued investments, although construction phase has been completed in January 2019.

This transaction not only represents the first Colombian issuance in dollars in recent memory, but is also one of the largest project bonds ever issued by a Colombian company.

The 7.5-year US dollar-denominated notes are fixed-interest rate and fully-amortizing. The notes have a six-month debt service reserve account (DSRA) and standard provisions for dividend distribution and the incurrence of additional leverage.

Exposure to foreign exchange risk is seen as limited as approximately 75% of revenues are US dollar-denominated.

The transaction is subordinated with OPAIN, the Fiduciaria Bancolombia as local collateral agent and other material sponsors of the project company.

Final book order had 11 investors, including core infrastructure players in the international markets. The transaction was over subscribed by $278 million.

Financial close was reached on 14 August 2019.

Debt value: $415 million

Full list of sponsors: OPAIN, Argos, Odinsa

Lenders: pool of investors

Joint lead placement agent: SMBC, and SMBC Nikko Securities America

Tenor: 7.5 years

Pricing: 4.09%

Advisers: Paul Hastings

Latin American renewables
Pirapora II Solar PV

This eye-catching transaction comprised the first subordinated project issuance of debentures in Brazil, which will be repaid by dividend distribution of the SPVs constituting the project.

Originally developed by Canadian Solar, the SPV Pirapora II Solar Holding, now owned by EDF and Omega Energia (50:50), issued debentures to finance, fund future payments or reimburse costs and expenses and/or the repayment of short-term financings related to the implementation and operation of the Pirapora II solar complex.

The project comprises three subsidiaries, Pirapora II, III, and IV, with a total installed capacity of 115MWp.

Located in the Brazilian state of Minas Gerais, the project is fully contracted with a 20-year PPA signed with the electric power chamber of commercialization (CCEE), awarded in a power auction held in 2015.

The non-recourse transaction at the level of the controlling shareholder of the SPVs responsible for the development of the project led Pirapora II to reach financial closure, completing financing obtained one year earlier.

In June 2018, the SPV closed a R354 million 20-year financing with regional development bank Banco do Nordeste do Brasil (BNB), which provided loans at very competitive costs.

This first part of the financing received a guarantee package until financial completion, comprising 24-month letters of credit covering 100% of the financing amount. The LC was provided by BTG Pactual (60%) and BNP Paribas (40%) on a non-recourse basis, based solely on project guarantees.

In September 2019, Pirapora II issued the infrastructure debentures in local currency totaling R118 million. The issuance was seen as a groundbreaking transaction, creating an important precedent for other deals in the Brazilian debt capital markets.

Part of the proceeds from debentures was used to repay an existing shareholder loan.

Latin American distributed power **Ergon private placement**

With a great social impact, this project is the most ambitious of its kind to date in Peru, designed to benefit over 1 million people living in rural and remote areas of the country.

Italian developer Tozzi Green's SPV, Ergon Peru issued a $222 million green bond to refinance the bank loan for a solar PV distributed generation project that installed solar kits in rural areas across the country. SMBC also provided a letter of credit (LC) totaling $14.5 million. The senior secured bond was issued under a private placement in the US and was acquired by a group of 42 institutional investors.

SMBC and SMBC Nikko Securities structured the emission, which received the highest evaluation score in S&P's green bond scale with the E1 grade.

SMBC also led the original financing, structuring it and acting as a lender besides Peruvian development bank Cofide, with a 13-year term loan totaling $142.3 million. The remaining financing will be used to fund the expansion of the project from the original 19.6MW to a total capacity of 28.4MW.

The new debt has a lower interest rate and longer tenor. The bond is now has the same duration as the tenor of the PPA awarded by the Peruvian Ministry of Energy and Mines – 15 years. After that, the government will own the projects and may seek a new concessionaire.

Ergon receives an availability-based fixed annual compensation indexed to local and US-PPI inflation subject to certain operational and service factors received through a monthly tariff charged to the project's end-users and a cross-subsidy among consumers of the energy system.

This is the first off-grid rural electrification for the Peruvian government to date, which aims to improve the living conditions and overall health and welfare of large and remote communities not connected to the grid. Most of the beneficiaries of this project have either lived without electricity or relied upon fossil fuels.

Peru has a goal of reaching 100% of rural electrification by 2025. Ergon's project aims to reach up to two million people.

Debt value: $222 million in bonds + $14.5 million in LC

Full list of sponsors: Tozzi Green (90%) and Gardini (10%)

Sole Placement Agent, Bookrunner, LC Issuing Bank, Intercreditor Agent and Administrative Agent: SMBC

Tenor: 15 years

Pricing: 4.87%

Advisers: Baker & McKenzie (international to borrower)

Estudio Echecopar (local to borrower)

Paul Hastings (international to lender)

Garrigues (local to lender)

Latin American telecoms **Internet para Todos**

This transaction was complex for a number of reasons aspects, not only because of the number of investors and its different profiles but also because of the complexity of the transactional and commercial agreements and the complexity of the local telecom industry.

Internet para Todos (IpT) means Internet for all. This is what Telefónica, Facebook, IDB Invest and the Development Bank of Latin America (CAF) aimed at when they launched this project in Peru.

This telecoms project is considered by many to be social infrastructure. IpT is an open access wholesale rural mobile infrastructure operator which aims to bringing mobile broadband to remote populations where conventional telecom infrastructure deployment is not yet economically feasible.

The project has already connected 2,000 communities located in remote areas in Peru, benefiting around 600,000 people. Approximately 100 million people in Latin America are estimated to live without access to internet.

Financing for this project closed in May 2019, totaling $150 million.

The four participants agreed to finance the project as co-investors, which means that the full amount was disbursed as equity. All four became shareholders of IpT.

The economically-sustainable business model based on open access principles and new technologies was very innovative, especially for the region.

IpT will offer wholesale access to its rural broadband infrastructure through a revenue share model that will enable mobile operators to deliver communication services to individuals, businesses, and other organizations in rural communities.

Economic sustainability will be achieved through partnerships with local communities and by using open technologies that will reduce the cost of deployment in areas where current technologies are cost prohibitive.

IpT will take advantage of cloud architectures, automated network planning, open radio access solutions (Open RAN) and a combination of optimized fiber and microwave networks.

Total value of the transaction: $150 million

Equity Value: $150 million

Full list of sponsors: Telefónica, Facebook, IDB Invest, and CAF

Advisers:

Clifford Chance (international legal to development banks)

Garrigues (local legal to CAF)

DLA Piper (local legal to IDB Invest)

Rebaza, Alcázar & de las Casas (local legal to Facebook)

Estudio Echecopar (local legal to Telefónica)

Hogan Lovells (international legal to Facebook)

Baker McKenzie (international legal to Telefónica)

Latin American rail **Ferrocaril Central**

The largest infrastructure investment in Uruguay's history and the first international railroad PPP in the country, Ferrocarril Central is a railroad that will connect a pulp mill to the Port of Montevideo, facilitating exports.

Awarded in 2018, Grupo Via Central consortium signed the 18-year contract to DBFM the 273km Ferrocarril Central, and the PPP contract has a minimum 7-year extension option. The project comprises maintenance of 273km of the existing railway from the Paso de los Toros to Montevideo, including the reconstruction of 80 km of existing single-track line and the construction of 26 km of two-way lines between Montevideo and Progreso.

Having a 17-year bank financing, with a 1-year tail, was also a challenge in Uruguay

Financing closed in October 2019, with dual-currency funding in US dollars and in UI (an inflation-indexed currency unit used in Uruguay for investments). Revenues from the project will be based on availability payments in both currencies. With an innovative structure, financing had four tranches of senior debt, including a combination of a dollar-based fixed-rate loan from IDB Invest, a UI-fixed rate tranche from CAF, and a swap in dollars from commercial lenders. IDB Invest provided a 17-year $538 million A/B loan, supported by Intesa Sanpaolo and SMBC. The local currency tranche linked to inflation (UI) was equivalent to $392 million. An infra debt fund managed by CAF provided the facility that will pay around 6.1% annually.

The financing package was backed by availability payments from the Ministry of Transport and Public Works (MTOP).

Aiming at additional flexibility to leverage the equity, the financing structure included a tranche of mezzanine.

Having a 17-year bank financing, with a 1-year tail, was also a challenge in Uruguay. Although the country has a good credit rating, it also has a narrow market with little dollar-investment opportunities for commercial banks and an economy considered too rich for most DFIs.

Ferrocarril Central will take around 3 years to complete. It is a key component of the transport infrastructure program that Uruguay is developing to strengthen its logistics platform, being complimentary to the truck and port systems.

Total value of the transaction: $1.1 billion
Debt value: $942 million
Equity Value: $155 million
Full list of sponsors: NGE Concession, Sacyr Concesiones, Saceem, Berkes
Lenders: Development Bank of Latin America (CAF), CAF Asset Management fund, IDB Invest, Intesa Sanpaolo, SMBC
Offshore Collateral, Account Bank, Intercreditor Agent, Administrative and
Paying Agent: Citi NY
Onshore Collateral Agent and Account
Bank: Citi Uruguay
Tenor: 17 years
Advisers: Jiménez de Aréchaga, Viana & Brause (Sponsor Local Legal)
Baker & McKenzie (Sponsor International Legal)
Clifford Chance (Senior Lenders International Legal)
Astris Finance (Financial)
Willis Towers Watson (Insurance Advisor)
Infrata (Technical Advisor)
Infrata & ERM (E&S Advisor)
PwC Uruguay (Tax & Accounting)
KPMG Uruguay (Model Auditor)
TMF (Onshore Trustee)

Latin American roads **Autopista Al Mar 1**

Colombia's Autopista al Mar 1 project - the largest of the Fourth Generation (4G) road programme - reached financial close in March 2019, securing a multi-tranche transaction featuring domestic and international commercial and development banks, as well as institutional investors.

With a 25-year contract, the 176km Autopista al Mar 1 will connect the city of Medellín to the main highways in the country. The concessionaire Desarrollo Vial al Mar (Devimar) is owned by foreign and local companies.

The build, operate and maintain project comprises the construction of the motorway between Medellín and Santa Fe de Antioquia. Devimar will also build a parallel tunnel of 4.6km at the Túnel de Occidente, improving traffic in and out of Medellín. The concession contract includes the rehabilitation, operation and maintenance of the whole 176km concession road.

Autopista al Mar 1 closed with financing totalling Ps2.23 trillion ($713 million) with loans both in Colombian pesos and dollars in a novel structure in the country.

The 15-year tenor loan included six different tranches, one dollar-denominated tranche totalling $220 million; four peso-denominated tranches amounting to Ps1.34 trillion, and one URV-denominated tranche of around Ps190 billion.

FDN provided senior debt totalling Ps553 billion ($178 million). Additionally, the institution provided credit for multilaterals, international banks and funds through its fund in pesos, essential to get the deal across the finishing line.

Lenders at the dollar tranche comprised SMBC, KfW IPEX-Bank and Societe Generale. On the tranche in pesos, IIC, IDB (with IIC as agent acting on its behalf), FDN, ICO and CAF. And the tranche in URV was provided by BlackRock.

As the majority of the project costs are denominated in pesos, the project will use US dollars/Colombian pesos non-deliverable forward hedges to convert the dollars disbursements through construction into pesos, eliminating the FX risk to the project during construction.

Colombian development bank Financiera de Desarollo Nacional (FDN) played a fundamental role in leading the financing, acting as the major lender and providing local currency to foreign institutions.

Total value of the transaction: $1.061 billion
Debt value: $713 million
Equity Value: $348 million
Full list of sponsors: Sacyr (37.5%), Strabag (37.5%), Concay (25%)
Lenders: Societe Generale, SMBC, KfW IPEX-Bank, FDN, ICO, IDB Invest, CAF, and BlackRock
Tenor: 15 years
Advisers:
Clifford Chance – legal to the lenders (international)
Binder Grösswang Rechtsanwälte – legal to lenders (Austrian)
Philippi Prietocarrizosa Ferrero DU & Uría – legal to BlackRock
Brigard & Urrutia – legal to the lenders (local)
Paul Hastings – legal to sponsors (international)
Katten Muchin Rosenman UK – legal regarding the hedges
Godoy & Hoyos – legal to sponsors (local)
Mott MacDonald (technical)

Latin American water **BRK Ambiental**

Brazil's BRK Ambiental closed financing for an innovative project comprising both brownfield and greenfield features in the country's largest sanitation PPP project. Sanitation in Brazil has a very specific legislation that limits private investments, which added challenges to the negotiations.

This project comprised the development of the water treatment and sanitation services infrastructure for the city of Recife and its metropolitan region, in the northeast of Brazil.

The project's total cost adds up to R1.7 billion, divided into two phases. The financing includes portions of investments already made and yet to be made on Phase 1 of the project, from 2013 to 2019. Phase 2 comprises investments that are to be made between 2019 and 2023, according to the timeline on the 35-year concession contract signed in 2013 by BRK Ambiental as part of the Cidade Saneada programme, the largest PPP in Brazil.

Phase 2 was co-financed by IDB Invest through a 20-year long-term loan of up to R$342 million, and by a loan closed with Banco do Nordeste do Brasil (BNB) of approximately R$634.5 million for the same term.

This financing adds to a loan obtained in 2013 from Caixa Econômica Federal to the amount of R$235.7 million, and sums from the Fundo de Desenvolvimento do Nordeste to the amount of R$415.6 million. The terms of the latter two loans are 23 years and 20 years, respectively.

One of many challenging points of this project is the sharing of guarantees between IDB and CEF. The loans will fund the expansion and improvement of sanitation projects in 15 municipalities in the metropolitan region of Recife, capital of the Brazilian state of Pernambuco.

The first phase of the project consists of 107km of new wastewater collection networks, 16 pumping stations, nine wastewater treatment stations and the renovation of the existing network.

The second phase, which will run until 2022, includes the construction of five treatment stations and the addition of 79,000 wastewater systems in homes and 440km of new wastewater collection network. It will increase the number of residences connected to the sanitation system in the region from around 40% to up to 90% coverage by 2037, benefiting around four million people. Canadian fund manager Brookfield owns 70% of BRK Ambiental, while the infrastructure investment fund FI-FGTS, managed by Caixa Economica Federal, owns the remaining 30%.

Total value of the transaction: R1.7 billion
Debt value: R1.256 billion
Equity Value: R474 million
Full list of sponsors: BRK Ambiental (Brookfield, 70% and Caixa's FI FGTS, 30%)
Lenders: Caixa Econômica Federal, Banco do Nordeste do Brasil, IDB Invest
Advisers:
Mattos Filho, Veiga Filho, Marrey Jr e Quiroga Advogados (local legal)
Hogan Lovells (international legal to IDB)
Norton Rose Fulbright (international legal to BRK)
Machado, Meyer, Sendacz & Opice Advogados (local legal to BRK)
Willis Towers Watson
PwC

IJGlobal Awards 2019

Asia Pacific

It is with equal proportions of joy and sadness that *IJGlobal* announces the winners of our awards for company activity and deals closed across the 2019 calendar year in the Asia Pacific region.

The APAC team – led by regional editor Alexandra Dockreay in Sydney and senior journalist Dave Doré in Hong Kong – had been looking forward to hosting a conference in Singapore, followed by an awards night in The Westin.

This was sadly cancelled due to the coronavirus pandemic as *IJGlobal* took the tough decision that so many other organisations did in this challenging time – to cancel events in the interests of the safety and well-being of our partners.

We at IJ are always keen to drive home the impartiality of our judging process which – we believe – is renowned for being the most fairly judged, relying on a team of independent, senior infrastructure and energy players active across the APAC region. We are now delighted to announce the winners.

Winners in the Asia Pacific transaction category are:

- Waste – **East Rockingham EfW**
- Metals & Mining – **Greenbushes Hard Rock Lithium Mine**
- Oil & Gas – **Jambaran-Tiung Biru Gas Processings**
- Petrochemicals – **RAPID**
- Telecoms – **Kacific1 Satellite**
- Refinancing – **Mong Duong Finance Holdings BV**
- Innovation – **Da Mi Floating Solar**
- Hydro – **Tina River Rail PPP**
- Rail – **Cross River Rail PPP**
- Road – **Cambodia Expressway**
- Offshore Wind – **Yunlin Offshore Wind**
- Onshore Wind – **Super Six Wind**
- Energy Storage – **Hornsdale Power Reserve**
- ESG Finance Innovation – **Sydney Airport Refinancing**
- Power – **Gulf Pluak Daeng CCGT**
- Solar – **Teknaf Solar**

Asia Pacific waste
East Rockingham EfW

East Rockingham Resource Recovery Facility (ERRRF) is only the second utility-scale energy from waste (EfW) project financed in Australia. With ERRRF within 7km of the first at Kwinana, Western Australia and its Perth metropolitan area has become the nucleus of EfW in the country.

Original developer New Energy Corporation brought in major international player Hitachi Zosen INOVA (HZI) to provide its moving grate combustion technology. HZI's EPC partner Acciona from Spain has chosen this project to take an equity position for the first time in its global EfW business.

Another early stage sponsor that joined the 300,000 tonnes of waste, 29MW energy project was Tribe Infrastructure Group drawing on its international network and experience across the Middle East and Asia Pacific. After an international search, John Laing from the UK and Masdar from Abu Dhabi joined for 40% equity each around financial close, with Masdar debuting in Australia.

The Eastern Metropolitan Regional Council (a collective of four councils) and City of Cockburn had each tendered 20-year waste supply contracts for red-bin municipal solid waste on an unusual "waste arising" basis, rather than the typical "take-or-pay". They only offered exclusivity over all the red-bin waste in their areas.

These councils will suffer no financial penalties for initiatives reducing red-bin waste. But it fell to consultants, lenders and investors to pore over forecasts to get comfortable, assessing for example demographic trends and the planned rollout of food and garden organics waste bins.

Australian, Japanese and European lenders were able to provide a A$308 million five-year term loan, while government green bank Clean Energy Finance Corporation is providing a A$57.5 million mezzanine loan that helped in obtaining the A$128 million of total equity.

The addition of technology for collecting and treating bottom ash, which an external company will blend in its construction materials, is hoped to kick-start a new Australian market.

Asia Pacific metals and mining
Greenbushes lithium mine expansion & refinancing

Talison Lithium operates the Greenbushes Lithium Mine in Western Australia, the world's largest active lithium mine, capable of producing 1.34 million tonnes of lithium concentrates per year. Talison Lithium is itself one of only five large-scale producers that dominate the global market for lithium, a less transparent commodity that in 2019 featured depressed prices making it difficult for smaller operators.

But the world-leading Greenbushes facility, as it readies to expand further, has its eye on the long-term potential of lithium in energy storage and electric vehicles.

Greenbushes hard rock mine managed to raise funds to refinance the existing mining operation and fund the majority of costs for a major expansion. The project will add a third chemical-grade lithium processing plant, plus a tailings retreatment facility for utilising tailings recovered from historic production targeting tantalum rather than lithium. Some works began in 2019, with construction due to take a few years.

The revolving loan gives flexibility for the borrower to progress the project at a suitable pace

Borrower Windfield Holdings is a holding company owning Talison Lithium. Windfield's 50/50 shareholders are Chinese manufacturing company Sichuan Tianqi Lithium Industries Inc. and US-based chemicals company Albemarle Corporation. As both the shareholders and the offtakers for Greenbushes Lithium Mine, unique contractual arrangements were required.

Both shareholders are building downstream processing facilities nearby at Kwinana and Kemerton. These, when commissioned by late 2021, should receive lithium from Greenbushes. In June 2019 Windfields closed a project finance secured just against Greenbushes mining facility. It refinanced a A$370 million four-year revolver raised in 2017 from the same banks, and provided the majority of the capital for the expansion.

The lenders on the 2019 A$770 million four-year revolving credit facility are a group of six international banks from Europe (ING, HSBC, Societe Generale, BNP Paribas) and China (ICBC and Bank of China). The revolving loan gives flexibility for the borrower to progress the project at a suitable pace.

Asia Pacific oil and gas
Jambaran-Tiung Biru gas processing

Subsidiaries of Indonesian state-owned oil and gas company Pertamina – Pertamina EP Cepu (PEPC) and Pertamina EP (PEP) – are developing the Jambaran-Tiung Biru (JTB) gas-processing project: one of Indonesia's five national strategic priorities. Sponsors have a production-sharing contract with Migas, the oil and gas regulator. The project's aim is to monetise JTB gas field's 2.5 trillion cubic feet of proven reserves in East Java, Indonesia.

Sponsors have raised a $1.85 billion debt package towards PEPC's project costs. MUFG, as financial adviser, developed the financing under a limited-recourse trustee-borrowing scheme (TBS) – Pertamina's largest TBS financing in two decades. It was the first-ever Pertamina-led, limited-recourse TBS financing with no recourse to Pertamina at the parent level.

The TBS helped the borrower – New York Trustee on PEPC's behalf – cover risks associated with the inability to pledge assets. The TBS also had an innovative hedging solution, allowing local and regional banks that were not compliant with the Dodd-Frank Act to provide interest rate swaps.

The US dollar package, with 12 local, regional and international banks on the syndicate, combined 15-year conventional tranches and 10-year Islamic debt tranches. The deal was Indonesia's largest and longest tenor project financing that did not involve export credit agencies. The inclusion of Islamic debt was groundbreaking. It was Pertamina's first Islamic project financing and the first time for Islamic debt in a TBS.

The revenues, mainly from a long-term gas sales agreement with offtaker Pertamina, are the primary source of debt service. The transaction was the first limited-recourse financing to have a Pertamina subsidiary as anchor sponsor.

Project participants included SMBC (MLA and hedge provider), DBS (MLA and hedge provider), Latham & Watkins (sponsors' legal) and Milbank (lenders' legal).

Asia Pacific petrochemicals – **RAPID**

Petroliam Nasional Berhad (Petronas) and Saudi Aramco's $15.3 billion Refinery and Petrochemical Integrated Development (RAPID) project was a $9.6 billion mega project financing in Malaysia, for what is understood to be Asia's largest ever petrochemical and refinery project and the largest ever project financing in South and Southeast Asia.

RAPID was many years in the making, with Petronas' final investment decision in 2014 and that after long delays. RAPID will deliver a 300,000 barrels per day refinery and a steam cracker, which provide feedstock to the project's downstream C2/C3 polymers and glycol derivatives petrochemicals complex with 3.6 million metric tons per year production capacity. Already commercial operations at RAPID were starting by late 2019.

This mega project is within Petronas' estimated $27 billion Pengerang Integrated Complex (PIC) in Johor, Petronas' largest project to date. For Malaysia RAPID is a game-changer, due to position the country long-term to capitalise on growing demand for energy and petrochemicals in Asia and globally. State-owned Petronas transitions from a more domestic focus to a major regional player.

When in March 2018 Saudi Aramco signed up to invest in 50% ownership of RAPID's refinery and cracker in its largest investment abroad, it gained a crucial export customer in Southeast Asia as it will supply 50% to 70% of the refinery feedstock.

In the region of 50 commercial banks have participated, with ECAs including from Japan, Korea, Italy, Spain and UK. Commercial lenders came from Malaysia, Singapore, China, Japan, US, Kuwait, Australia, UK, Italy, Spain, France and Germany.

Their 15-year $9.7 billion debt closed 22 November 2019, featuring a $5.63 billion uncovered facility, one of the largest ever in Asia Pacific, priced very low starting at 95bps. There are two special purpose vehicles (SPVs), for the refinery and cracker and then the petrochemicals complex, with the SPVs able to share liabilities and on-loan proceeds.

Asia Pacific telecoms **Kacific1 satellite**

Kacific Broadband Satellites Group (Kacific) in March 2020 entered commercial service on its asset Kacific1 nearly 35,800km above the equator, following the satellite's launch on a SpaceX Falcon 9 rocket. The $160 million refinancing had closed less than two weeks before the December 2019 launch.

Kacific1 is a shared, geostationary earth orbit, high-throughput satellite. The communications satellite is providing mobile backhaul and broadband internet via 56 powerful spot beams to remote areas in 25 nations throughout South East Asia and the Pacific Islands. Catherine Marsh, Asian Development Bank (ADB) assistant general counsel, said: "By doing a transaction such as this, we hope to demonstrate deals in [the Pacific Islands region] are bankable."

Edwards Investment Cyprus, a UK-based family office, is Kacific's largest investor. Another owner is Oceania Women's Network Satellite (OWNSAT) and its individual members. "We all invested because we wanted to bring high-throughput broadband internet to the Pacific Islands and particularly to the women on those islands," said OWNSAT co-founder Candace Johnson.

Project participants cited the unusual mix of financiers – DFIs, an Australian pension, a European asset manager – as one of the innovative aspects of the deal. ADB, Leading Asia's Private Infrastructure Fund and MEAG participated on the $110 million senior secured debt. Commonwealth Superannuation Corporation, as trustee of the ARIA investment trust, delivered a $50 million mezzanine loan. GuarantCo provided a $50 million partial credit guarantee on MEAG's tranche. Senior debt priced at roughly 400bp over 6-month Libor. The mezzanine has an undisclosed fixed rate. Tenor was seven years across all tranches.

Kacific had to get its financiers comfortable with the credit risk of telcos and internet service providers in frontier markets. "One of the main risks is definitely offtaker risk in our industry," said Kacific's founder and chief executive Christian Patouraux. "Bankers need to balance their credit risk assessment with deeper market analysis. They tend to tip the scales to the former."

Asia Pacific refinancing **AES-VCM Mong Duong 2**

AES Corp, Posco Energy and China Investment Corp own AES-VCM Mong Duong Power – the project company of the 2x 560MW Mong Duong 2 coal-fired power plant complex, some 220km east of Hanoi in Quang Ninh, Vietnam. AES-VCM Mong Duong in the second half of July 2019 engaged more than 100 investors for a $1.163 billion refinancing package in six cities around the world.

On 25 July Mong Duong Finance Holdings – the offshore refinancing SPV – priced $678.5 million 144a/RegS notes, along with a $402.7 million term loan and $82 million debt service reserve letter of credit (DSR LC) to purchase existing export credit agency loans, raised in 2011 roughly four years before commercial operations date.

Initial price guidance (IPG) was 5.625% on the notes due 2029 – Vietnam's first ever project bond. "Quick conversion of [indications of interest] saw books grow quickly with chunky orders from high quality institutional accounts, and were in excess of $2.25 billion post lunch," said Citi, the joint global coordinator on the bonds with HSBC. Order books of the largest ever sub-investment-grade project bond from South East Asia grew to more than $3.4 billion, following the US open. Final coupon compressed 50bp below IPG to 5.125% – about 112.5bps off the theoretical seven-year Vietnam sovereign bond, given the government-guaranteed coal supply agreement and power purchase agreement.

"Quick conversion saw books grow quickly with chunky orders from high quality institutional accounts."

Transaction innovations included a bond and term loan "repack" of the existing ECA-covered loans Korea Exim Bank and K-Sure loans. The new debt has full security over the issuer and the existing loans enabled full security over AES-VCM Mong Duong Power's assets and project agreements, meaning all project finance security was kept in place.

"The non-recourse DSR LC was the most innovative aspect of the transaction," said James Meffen, AES director of project finance. "I think that was hard for everybody involved to agree on." HSBC director of infrastructure finance Remi Degelcke noted, "Certainly in Asia, DSR LC has not been seen in many transactions. It required a lot of structuring and negotiating with the banks."

Asia Pacific Innovation
Da Mi floating solar

Project sponsor Da Nhim–Ham Thuan–Da Mi Hydro Power (DHD) – a third-tier subsidiary of Vietnamese monopoly state utility EVN – has developed the 47.5MW Da Mi floating PV solar project on a reservoir of its existing 175MW Da Mi hydropower plant in Binh Thuan. DHD's status as a state-owned enterprise and subsidiary of the monopoly electricity utility EVN, which has a strong relationship with the Asian Development Bank (ADB), helped to smooth the way.

ADB, as DHD's financial adviser, helped structure the $37 million debt package into three US dollar tranches. Structuring involved ADB's ordinary capital resources, a blended concessional co-financing from Canadian Climate Fund for the Private Sector in Asia and its follow-on fund, and a parallel loan from Japan International Cooperation Agency-supported Leading Asia's Private Infrastructure Fund. A source understands ADB's loan to have a 15-year tenor and pricing in line with Vietnam's 10-year sovereign-risk spread.

"International lenders are not comfortable with the current domestic PPA terms."

Da Mi is Vietnam's first large-scale floating solar PV project and the largest in Southeast Asia. "The pairing of these two clean energy technologies – hydropower and solar – is a simple but a highly innovative achievement, which can be replicated elsewhere in Vietnam and across Asia and the Pacific," said ADB's deputy director-general of private sector operations Christopher Thieme.

"International lenders are not comfortable with the current domestic PPA terms, and local banks lack experience in financing renewable energy projects," said an ADB source. "The project was financed using a hybrid structure with debt sizing based on project cash flows and an acceptable level of gearing, with additional credit enhancement provided by the revenues from DHD's already operating hydropower assets."

Project participants also pointed to the importance of assuaging EVN's concerns about the management of intermittent power on the grid. "Many grid operators are wary of increasing the levels of renewable energy, particularly solar," said a project insider. "Successful project development helps inform future policy and give EVN the knowledge it seeks to negotiate successfully with developers on future renewable energy expansions."

Asia Pacific hydro
Tina River Rail PPP

Solomon Islands in the South Pacific relies almost entirely on imported diesel (97%), with volatility in diesel pricing passing on from utility Solomon Power to consumers. The long-running Tina River Hydro project, first conceived in very early studies in 2007-2008 as the nation's first renewable project, should dramatically reduce consumer energy costs. Capital Honiara's reliance on diesel should fall to around 30%, with the cost per kWh in Solomon Power's 30-year PPA around one-third lower at financial close than the prevailing diesel cost.

Tina River Hydro should also reduce annual CO2 emissions by equivalent to 49,500 tonnes.

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The government, not long out of civil war, worked closely with World Bank on studies and then the International Finance Corporation as financial adviser. They structured a build, own, operate, transfer contract: the nation's first PPP.

Challenges during early stages were a lack of data on the site, plus identifying and registering tribal land owners. Newly-established Tina Core Land Co (50/50) owned by tribes cooperatives and government) will lease the land. The cooperatives ensure around 4,000 men, women and children will share benefits equally. It is a complex 15MW high dam hydroelectric facility in a high-cost geography.

Only the Korea Water Resources Corporation (K-water) and Hyundai Engineering Co. (HEC) consortium stayed in the procurement to the end.

A pivotal shift happened during 2014-2015's global oil price crash, with Tina River Hydro transitioning from a commercial finance structure using private sector windows of development banks, to a fully concessional finance.

Parts of Asian Development Bank, KEXIM, World Bank, Green Development Fund, Abu Dhabi Fund for Development are providing $157.975 million concessional loans, all with varying tenors and interest, to Solomon Islands Government. Grants totalling $50.955 million also go direct to government. The government ring-fences proceeds and on-lent one single senior, secured 30-year $156 million loan to the project company complemented by a $45 million grant.

Asia Pacific rail
Cross River Rail PPP

The A$5.4 billion ($3.76 billion) 10.2km Cross River Rail in Brisbane, Australia is a highly complex feat of engineering to deliver an entirely new heavy rail line. It is Queensland's largest ever PPP procurement. It could support an enormous 7,700 jobs in total over five years of construction.

The tunnels, stations and development (TSD) works package that the Queensland Government procured as an availability-based PPP involves construction of 5.9km twin tunnels under the Brisbane River and central business district, plus four new stations underground and two station upgrades above ground. Construction will take 4.8 years, followed by a 24-year maintenance phase.

Competition in the tender was competitive as ever for a large-scale PPP in Australia, with the PULSE consortium of Australian, Dutch and Italian equity partners Pacific Partnerships, DIF, BAM PPP PGGM Coöperatie and Ghella Investment & Partnerships emerging victorious. Their group contracting arms will undertake the works.

Pulse beat a team led by Plenary with partners from Australia, Spain, Italy, and Korea and another led by Capella Capital with long-term QIC money and Australian and French contractors.

Macquarie Capital was sponsors' financial adviser, collaborating to raise on 1 July 2019 a six-years-and-seven-months A$2.1 billion term debt for construction from 11 international banks from Japan, Spain, France, Italy, Germany, and the UK before syndication. There is also a A$109 million guaranteed facility and A$58 million debt service reserve facility.

Queensland's motivation for the undertaking is to ease congestion on Brisbane's roads by enabling much higher frequency, integrated public transport. The city has only one river crossing built 40 years ago at present, an effective bottleneck on its transport network, and four inner-city stations.

Stakes for the state government are high, with no federal contributions. In February 2020 Queensland's minister for the project announced the delivery authority will report to her directly, while setting up a compliance unit.

Asia Pacific road
Phnom Penh-Sihanoukville Expressway

The development of Cambodia's expressway network will facilitate modern industrialization. The Henan Provincial Communications Planning Survey and Design Institute has estimated that Cambodia needs to develop 2,230km of expressway, totalling some $26 billion in project cost, by 2040. The Design Institute survey envisioned an expressway linking Cambodia's two major economic hubs – the capital of Phnom Penh and the port of Sihanoukville.

China Communications Construction's China Road and Bridge Corp (CRBC) is sponsor of Cambodia's first expressway – the $1.87 billion, real-toll Phnom Penh-Sihanoukville Expressway. The project development lasted many years. CRBC in 2007 was toiling away on the road's feasibility study. Fast forward some 12 years, PwC, CRBC's financial adviser, has helped structure a massive loan package, led by China Development Bank and the Export-Import Bank of China. Chinese banks signed the syndicated loan in April 2019 and closed a month later. Sinosure is providing coverage to the EPC companies and banks, according to an inside source. Law firms Hunton & Williams and DFDL advised CRBC to commercial close on the 50-year concession.

Government officials and project participants expect the build-operate-transfer project, as part of China's Belt and Road Initiative, to birth an important economic corridor. The 190km, four-lane highway will connect Cambodia's two major economic hubs: the capital of Phnom Penh and Sihanoukville – site of the South East nation's only deep-sea port. More than 90% of Cambodia's total container traffic passes through Sihanoukville.

Cambodia's Ministry of Public Works and Transport anticipates that project company Cambodian PPSHV Expressway Co will complete the Phnom Penh-Sihanoukville Expressway in Q3 2022, some five months ahead of schedule.

The Shenzhen Urban Planning and Design Institute had created a master plan for Shenzhen, China in the early 1990s. It emerged in 2019 that the Cambodian Government has tasked the institute to reprise that role and design a master plan for Sihanoukville, to transform the port city into the Shenzhen of Cambodia.

Asia Pacific offshore wind
Yunlin offshore wind

Soon after German developer wpd won the 640MW Yunlin offshore wind farm, it started looking for equity buyers in Yunneng Wind Power, the project company. Japanese investors – Sojitz, JXTG Energy, Shikoku Electric Power, Chudenko and Chugoku Electric Power – acquired 27% in April 2019. Japan's offshore wind market is a significant growth option for Sojitz. Its strategic roughly 9% stake in Yunlin is its first in an offshore wind farm.

The trading company aims to acquire expertise to develop the domestic industry. Then a subsidiary of Bangkok-listed Electricity Generating Public Co in December 2019 agreed to acquire 25% interest from wpd, dropping the German developer's stake to 48%.

SMBC had the joint mandate on the NT$94 billion ($2.98 billion) project finance package – the largest ever offshore wind, non-recourse deal in Asia. A total of 19 banks – four local and 15 international – lent on the deal.

Pricing and tenor had evolved from Taiwan's first offshore wind financing, Formosa 1, to Yunlin. Yunlin's pricing increased 10bp to 240bp above three-month Taibor, having the same 200bp at COD step-down.

While Yunlin's 18-year tenor certainly contributed to the 10bp premium over Formosa 1's 16-year debt, "the increase in tenor was not the sole factor," said a banker.

"A large contributor is definitely the increase in scale, as Yunlin soaked up a lot of NTD liquidity. When you take that much NTD off the table, you need to pay."

Three European ECAs participated to provide the required coverage for Yunlin's debt. EKF hit its cap to support offshore wind projects, with Atradius and Euler Hermes meeting the gap. Yunlin was Atradius' first offshore wind and first non-recourse Taiwanese deal.

Sponsors needed novel solutions because some of the lenders had access to Taiwan dollars, while others seeking to be involved did not.

The financing structure, therefore, was complex, comprising a mix of local currency and Euro debt, ECA covered tranches and unfunded risk participations.

The transaction also featured an innovative working capital facility, bridging pre-completion revenues. This deal had sizeable currency and interest rate hedging, while Deutsche Bank provided a groundbreaking deal-contingent interest rate swap.

Asia Pacific onshore wind
Super Six financing

Pakistan Prime Minister Imran Khan gave his imprimatur to a cohort of 11 wind farms in Jhimpir wind corridor, totalling 560MW in total installed capacity, which reached financial close in November 2019. For six of the wind farms, IFC used a programmatic approach for the first time in the wind sector. Dubbed the Super Six, these wind farms will be able to power 450,000 households.

IFC arranged a $317 million debt package from international DFIs – IFC and DEG – and local financiers – Bank Al Habib, Meezan Bank, Bank Alfalah and Allied Bank – on an 80/20 debt-to-equity basis. Sponsors evenly split the Pakistan rupee and US dollar tranches for each of the six projects. Interest pricing on the local currency was 6% – taking advantage of central bank State Bank of Pakistan's concessional lending on renewables – compared to 425bp over three-month Libor for the foreign debt. The hard currency's 13-year tenors were 30% longer than local currency tranches.

"Bridge Factor worked with IFC to club the projects. We must compliment IFC for very efficiently organising the programme," said Bridge Factor chief executive Akbar Bilgrami, who served as financial adviser to eight of the 11 projects, including the Super Six.

While the six originally had the same financing terms and commercial contracts, each project had a different group of sponsors and lenders. Some projects had only USD debt, others had USD and PRs loans, while still others had USD and local Islamic debt. Participants, therefore, had to design significant optionality in the template documentation.

"Each sponsor likes to get a better deal than their peers, and here we were proposing they would basically get the same deal," remarked the Bridge Factor chief executive. "Once it was all done, however, the sponsors appreciated the programmatic approach to achieve close, as they saved on legal, due diligence and travel costs."

Asia Pacific Energy storage
Hornsdale power reserve

Neoen's Hornsdale Power Reserve is a 100MW/129MWh operational lithium-ion battery energy storage (BESS) system in South Australia. The project grabbed world headlines when battery-maker Tesla wagered with the state government in 2017 it could build it within 100 days or else hand it over for free. The battery was operating by November that year.

It retains the status of the world's largest standalone BESS.

Most recently it prevented blackouts in February 2020 storms when South Australia's grid was "islanded". In its first year the BESS saved more than $50 million for energy consumers, by providing ongoing grid stability services and emergency back-up.

In November 2019, Neoen raised the first project financing for a standalone BESS connected to Australia's National Electricity Market (NEM). The special purpose vehicle (SPV) raised project finance for the existing battery and a roughly A$71 million project to add 50MW/64.5MWh capacity and upgrade to Tesla's Virtual Machine Mode.

Once expanded, this will be the first grid-scale battery with software providing digital inertia services to the NEM, which long-term could build up a market for inertia. It could provide around half South Australia's required inertia for grid stability.

Federal green bank Clean Energy Finance Corporation (CEFC) provided a A$50 million 13-year loan. Sponsor Neoen invested A$41 million equity, after having already equity funded the existing 100MW A$100 million BESS. Meanwhile the commonwealth's Australian Renewable Energy Agency gave an A$8 million grant.

With similarities to capacity market payments, South Australia's government will pay A$3 million-a-year for five years for the 50MW extra capacity. Meanwhile other revenues come from trading and arbitrage.

CEFC's loan includes a market tranche featuring revenue sharing between project SPV and CEFC for a percentage of cash flows, and no minimum repayment schedule. The contract-backed tranche achieved a lower debt service coverage ratio than for comparable wind or solar deals, in the absence of production risk.

Asia Pacific ESG Finance Innovation
Sydney Airport refinancing

Sydney Airport's operator has been pioneering in its commitment to environmental social and governance (ESG) principles since 2014, when it was the first Australian airport to report on sustainability performance. It has an ambitious target to be carbon neutral by 2025 and in another pro-active initiative, management saw the opportunity to link funding costs with sustainability. ANZ and BNP Paribas, both banks with prior experience in sustainability-linked loans, were mandated as joint sustainability coordinators to collaborate on a major multi-bank refinancing.

"The interest rate changes are modest but meaningful."

Precedents have been either outside Asia Pacific, or a small A$50 million single lender sustainability-linked loan for another Australian airport with debt pricing moving only one way: down.

For Sydney Airport, interest rates each year could rise or fall by a binary amount, or stay the same. "Having established the first syndicated sustainability linked loan in Australia, we had to lay the groundwork in creating the right structure and getting the banks comfortable," Sydney Airport group treasurer Michael Momdjian said.

Setting internal ESG targets did not match their ambition, so Sydney Airport selected external assessor Sustainalytics to give an annual score. Sustainalytics scores based on: corporate governance, product governance, human capital, business ethics, community relations, occupational health and safety, and emissions, effluents and waste.

The A$1.4 billion ($965 million) revolving credit facilities raised 23 May 2019 are in three tranches, with bullet maturities after three, four and five years.

There are more than 10 banks, all existing lenders, from Australia, Europe, US, Canada and Asia. "The interest rate changes are modest but meaningful. They are enough to drive a behavioural change, incentivising management to further improve our sustainability performance across the entire ESG spectrum" says Momdjian.

Management has already continued its momentum from 2019. In February 2020 Sydney Airport issued the first sustainability linked US private placement (USPP), and the first sustainability-linked bond issuance globally with two-way pricing movement.

Asia Pacific power
Gulf Pluak Daeng CCGT

Gulf Group's subsidiary Gulf Energy Development and Mitsui & Co's Mit-Power Capitals in November 2019 reached financial close on the Bt50 billion ($1.655 billion) Gulf Pluak Daeng (GPD) combined-cycle gas turbine power plant complex in Pluak Daeng, Rayong.

They have a long-term relationship, as their joint venture Independent Power Development Company (IPD) is holding company of both the 4x 662.5MW GPD CCGT complex and the GSRC complex in Sriracha 45km inland.

The project company for the GPD CCGT – Gulf PD Co (GPDC) – structured a more than Bt41 billion dual-currency, 23-year debt package. An international mix of seven lenders, including Japan Bank for International Cooperation, Asian Development Bank (ADB) and Export-Import Bank of Thailand, contributed $527.1 million to the hard currency tranches. Nine local banks, led by Bank of Ayudhya Bangkok Bank, Krung Thai Bank and Siam Commercial Bank, participated in the Bt20 billion local currency tranches, in addition to the Bt6.02 billion contingency facilities. *IJGlobal* understands that GPDC fixed the interest rate at 3.3%. IPD entered a 20-year swap converting the debt's interest rate from floating to fixed rate.

"The project will build the fourth-largest power plant and one of the largest combined cycle gas turbine power plants in Thailand, which will be key in the Eastern Economic Corridor (EEC) development plan, considered as the prime economic growth driver for the country until 2028," said ADB deputy director-general for private sector operations Christopher Thieme.

"The project will build the fourth-largest power plant in Thailand"

Project participants commented on the complex financing structure involving a mix of US dollar and Thai baht facilities, ADB's B-loan structure and direct financing from ADB and JBIC. The B loans allowed OCBC and DZ Bank, international banks with limited experience in Thailand, to participate.

The deal also has a back-ended equity structure, meaning Gulf and Mitsui are providing corporate guarantees in favour of lenders to secure their 70/30 equity contributions to IPD. A banker also said that Mitsubishi Hitachi Power Systems' is deploying a new gas turbine generator, with limited operational data.

Asia Pacific solar **Teknaf financing**

It was July 2017 and a barren, 116-acre remote part of Cox's Bazar, Bangladesh glistened with potential off the waters of nearby Naf River. Some 22 months later, project company Teknaf Solartech Energy (TSEL) closed on the $25 million debt financing for the 28MW Teknaf solar farm – now the first and only operational utility-scale solar project in Bangladesh. Dhaka-based IPP Joules Power (JPL) and a Chinese supplier own TSEL. In turn, three well-respected Bangladeshi business people, including Nuher Latif Khan, own JPL, which has an 80% equity interest in the SPV.

Acting as a quasi-financial adviser, GuarantCo – a member of London-based Private Infrastructure Development Group (PIDG) – approached banks armed not only with technical reports and environmental & social plans but also with a "bankable PPA signed by BPDB", according to GuarantCo South Asia regional director Nishant Kumar. Four banks joined the deal: $15 million in dual currency came from Standard Chartered (SCB) and Tk824 million tranches from local banks One Bank, Sabinco and Shahjalal Islami Bank.

Bangladesh's first 15-year project financing – almost double the typical eight-year maximum tenor for the country's infrastructure projects – saw GuarantCo mitigating payment default and liquidity risks on the Tk3 billion ($35.6 million) Teknaf solar power project. GuarantCo provided SCB with 90% coverage of "unconditional, irrevocable, on-demand guarantee". GuarantCo also provided a liquidity extension guarantee, a novel solution to de-risk challenges around refinancing. It allows SCB to exit the transaction after eight years – the typical maximum tenor– if liquidity constraints arise. GuarantCo soaks up the refinancing risk while the SPV continues to enjoy the entire 15-year tenor.

"Rates are higher with the local bank tranches, which reflects on why GuarantCo coverage adds value as we can avail the 'risk-free' rates from the banks at a longer tenure," Khan said. "SCB's pricing was very efficient as their spread tends to be lower than the local banks."

IJGlobal Awards 2019

Middle East & North Africa

IJGlobal is delighted to announce the winners of our coveted awards for company activity and transactions closed over the calendar year of 2019 across Middle East and North Africa.

We would have been presenting these awards at The Oberoi, Dubai, in March – the *IJGlobal* awards season – but this was sadly cancelled due to the coronavirus pandemic, following close consultation with our partners and clients.

Winners in the institutional category were voted on by senior figures from across the regional infrastructure and energy community – none allowed to vote in their own business areas – in what is widely regarded to be the most independently-judged awards in this sector.

Winners in the MENA transaction category are:

- Export Finance – **Al Dur 2 IWPP**
- Mining – **Alba line 6 expansion (ECA facilities)**
- Oil & Gas – **Bapco Modernization Program**
- M&A – **Project Beyond (ADNOC)**
- Refinancing – **Ma'aden Debt-to-Equity Conversion and Capital Increase**
- Wind – **Dumat Al Jandal Wind Farm**
- Water – **Taweelah IWP**
- Power – **Hamriyah IPP**
- Solar – **DEWA IV CSP**

MENA export finance
Al Dur 2 IWPP

A sponsor consortium of ACWA Power, Mitsui & Co, and Al Moayyed reached financial close on the first greenfield IWPP in Bahrain since the GFC – the $1.1 billion, 1.5GW Al Dur 2 IWPP with a 227,300 m3pd desalination facility.

Bahrain's Electricity & Water Authority (EWA) will purchase the power and water through a 20-year offtake agreement – BD12.9935/MWh ($34.5572) and BD0.26351/m3 ($0.70) respectively – which is backed by the Ministry of Finance. Gas feedstock will be supplied by the Sitra refinery which is subject to the BAPCO Modernisation Project – another project that reached financial close in 2019.

The ACWA Power-led team put up $281 million in equity and signed two tranches on the debt-side – one covered. Euler Hermes provided cover on a fully-amortizing 14-year plus construction tenor tranche with Standard Chartered Bank and KfW IPEX-Bank – with debt pricing at 105bps over Libor.

The other tranche is uncovered and consists of regional lenders and a Saudi DFI: Apicorp, Banque Saudi Fransi, Riyad Bank, and Saudi Fund for Development. This carries a 19.5-year tenor, starting at 350bps rising to 475bps.

The EPC contractors are SEPCOIII, PowerChina, and Sidem with Siemens providing F-class gas turbines. The O&M contract was awarded to NOMAC. The power component of Al Dur 2 will provide 25% of Bahrain's energy generation when construction finishes in Q2 2022.

The sponsors were advised by Covington & Burling and ASAR. EWA was advised by KPMG, Towers & Hamlins, and WSP. The lenders were advised by Shearman & Sterling, Al Tamimi & Company, and Norton Rose Fulbright, and Index. Deloitte was the model auditor on the deal.

MENA Mining
Alba Line 6 expansion

Aluminium Bahrain (Alba) closed on the ECA-backed tranche of its $3 billion Line 6 expansion project at the start of the year in 2019, which is a $238.3 million deal split between two tranches.

This new debt will be used to finance equipment for the Line 6 expansion project, which is expected to boost Alba's yearly production capacity at its aluminium smelters by 540,000 metric tonnes to 1.5 million metric tonnes. The deal represents the second and final tranche of export credit financing for the project.

The first tranche of the new ECA facilities is $136 million and is supported by Export Development Canada (EDC). Citibank is the MLA and facility agent for the EDC-covered facility, which has a 10-year tenor with the principal amount to be repaid over 10 years.

The other tranche comprises €90 million ($101.9 million) and is backed by the Japan Bank for International Cooperation (JBIC) and Nippon Export and Investment Insurance (NEXI). BNP Paribas is the MLA and facility agent for the JBIC/NEXI-supported facilities which involve two contract loans. One loan has a tenor of 10 years and a 10-year principal repayment period, while the other loan has a six-year tenor with the principal to be repaid over a 5.5-year period.

Alba is using the proceeds from the ECA direct and guaranteed loans to finance the acquisition of new equipment. The Bahraini company plans to become the world's largest smelter with the completion of this project.

Alba closed on a $1.5 billion syndicated term-loan facility in October 2016. The previous ECA deal on the project was the $700 million first tranche of ECA financing backed by Euler Hermes and SERV, which was closed in July 2017.

Alba was advised by JP Morgan which also acted as the ECA coordinator on the EDC and JBIC/NEXI deal.

MENA oil and gas
BAPCO Modernisation programme

The $6.8 billion BAPCO Modernisation Programme (BMP) was funded by a $4.1 billion debt package, which attracted five ECAs, 11 regional lenders, and a club of eight international banks for a tailor-made hybrid financing structure signed by Bahrain's nogaholding.

BMP is centred on the sole refinery in Bahrain – nogaholding's 100% owned Sitra, which outputs 90% of BAPCO's oil & gas products. The expansion project will boost this output further, from 267,000 barrels of oil per day (bopd) to 380,000 bopd.

Five ECAs provided debt coverage for $2.2 billion, on a 12.5-year tenor – CESCE and SACE both came in with $650 million each, UKEF at $400 million, K-SURE at $367 million and KEXIM at $100 million. The debt pricing has a tight range of 90-150bp and the portion required to be covered by ECAs ended up being a third smaller than expected.

The Islamic tranche has a 16-year tenor and comprises $530 million from the following local and regional lenders: Ahli United Bank, Apicorp, Bank ABC, BBK, Banque Saudi Fransi, Bahrain Islamic Bank, Gulf International Bank, Kuwait Finance Houe, Mashreq Bank, National bank of Bahrain, NCB, and Riyad Bank.

A final tranche of $1 billion has no coverage – on 16-year tenor with debt pricing above 300bp. These lenders are BNP Paribas (co-MLA), HSBC (co-MLA), Credit Agricole, Credit Suisse, Natixis, Santander, Societe Generale, and Standard Chartered.

KEXIM and UKEF are also providing their own direct loans, totalling $357 million.

The EPC contractors are Technip, Technicas Reunidas, and Samsung Engineering.

BAPCO was advised on the deal by BNP Paribas, HSBC, Shearman & Sterling, Linklaters, and Newton Legal. The lenders were advised by Allen & Overy, Haya Al Khalifa, Ernst & Young, Jacobs Consultancy, Nexant, and JLT.

MENA M&A

Project Beyond (ADNOC pipelines)

In February 2019, KKR Infrastructure and BlackRock Infrastructure acquired a 40% shareholding in special purpose vehicle ADNOC Oil Pipelines for $4 billion, with ADNOC retaining 60%. The deal is notable for being the first time leading institutional investors have partnered with a Middle Eastern national oil company.

ADNOC Oil Pipelines has leased the rights, title and interest in 18 pipelines totalling 750km in Abu Dhabi from ADNOC for a period of 23 years. ADNOC has been granted the right to use, manage, and operate the pipelines for the transportation of stabilised crude oil.

The new entity will, in turn, receive a tariff payable by ADNOC for its share of volume of crude and condensate flowing through the pipelines, backed by minimum volume commitments. The combined capacity of the pipelines amounts to 13 million barrels per day.

The agreements are UAE law-governed, and entailed complex structuring between the three parties. White & Case provided legal advice to ADNOC, while Milbank and Simpson Thacher & Bartlett assisted KKR and BlackRock.

JP Morgan, BAML, and Moelis & Company served as financial advisers.

The deal is notable in that the sale-and-leaseback nature of the deal could appear elsewhere in the region, and in other sectors.

Lenders provided a $3.28 billion senior term loan facility in support of the acquisition, bringing together a consortium of lenders including Bank of China, BNPP, CaixaBank, Credit Agricole, Korea Development Bank, MetLife, Mizuho Bank, Nomura, Norinchukin Bank, Samba Financial, Santander, SMBC, Sumitomo Mistui Trust. Linklaters advised the lenders.

MENA refinancing

Ma'aden Debt-to-Equity Conversion and Capital Increase

The Saudi Arabian Mining Company (Ma'aden) restructured its Ma'aden Rolling Company (MRC) subsidiary through a debt-to-equity conversion and capital increase after simultaneous negotiations including Alcoa Corporation, the Saudi Industrial Development Fund (SIDF), and the Public Investment Fund (PIF).

Ultimately the conversion led to a capital increase in Ma'aden via the debt-to-equity conversion for the amount of SR2.9 billion ($796.4 million) through the issuance of new shares to the PIF. The objective was to improve Ma'aden's liquidity and credit position while aiding its ability to reach its growth targets.

"This transaction will provide additional flexibility for Ma'aden to manage the rolling business going forward."

The multi-layered transaction results in the recapitalisation and associated restructuring of MRC – Ma'aden benefits from the deal by allowing an overall deleveraging of MRC and for a capital increase in its own accounts. The Saudi mining firm transferred the MRC's SR2.9 billion loan from the PIF in exchange for an equivalent loan from PIF to Ma'aden, which enabled the recapitalisation of MRC and the restructuring of its remaining commercial bank and SIDF debt.

At the same time, Alcoa Corporation's 25.1% shareholding in MRC was transferred to Ma'aden without any cash compensation in exchange for the release of Alcoa from future MRC lenders obligations. Alcoa will nonetheless retain its 25.1% interest in the Ma'aden Aluminium Company (MAC), which operates the Aluminium smelter, and in Ma'aden Bauxite and Alumina Company (MBAC), which operates the bauxite mine in Al Ba'itha and the alumina refinery both in Ras Al Khair Industrial City.

"This transaction will provide additional flexibility for Ma'aden to manage the rolling business going forward, while we will continue our long and successful relationship with Alcoa in our mining, refining and smelting joint ventures," said Ma'aden's president and chief executive officer Darren Davis at the time of closing in June 2019.

Ma'aden was advised on the 18-month long debt-to-equity conversion by White & Case.

MENA Wind

Dumat al Jandal wind farm

EDF and Masdar shrugged off disappointment elsewhere in Saudi Arabia's first round of renewables procurement by delivering the country's first ever utility-scale wind farm to financial close – the 400MW Dumat al Jandal project.

The French-Emirati consortium had put in a world record price for a solar energy on REPDO's Sakaka solar project but was controversially omitted when RFPs were evaluated in January 2018. The other project in the round was the 400MW wind farm at Dumat al Jandal, for which EDF and Masdar had again put in the lowest of four bids.

The Dumat al Jandal RFPs were evaluated in January 2019 and turned up EDF/Masdar as the winner with the offered tariff of $0.0213/kWh. This tariff was then lowered to $0.0199/kWh after interest rate swaps took place ahead of financial close, signed by Commercial Bank of Dubai. Saudi Power Procurement Company (SPPC) will offtake energy over a renewable 20-year term which is subject to an indexation mechanism to adjust the tariff in the event that the Saudi riyal is unpegged from the US dollar.

A club of six banks signed on the USD-denominated $270 million soft mini-perm debt on 30 June 2019 – the debt from KDB, Natixis, NCB, Norinchukin, SMBC, and Societe Generale carries a 20-year tenor matching the PPA. Pricing starts in the low 100bps and rising in step ups to the high 200s. These step ups will start after three years of operation, and construction is expected to take 2.5 years in total.

MENA water
Taweelah IWP

The world's largest desalination facility and the world's cheapest water price – ACWA Power's $1.2 billion Taweelah independent water producer (IWP) project also fits the mould for an industry standard.

The reasons for picking out this gargantuan 909,200 m3pd desalination facility are many: the project was brought to financial close in just two years after the feasibility study was conducted, its low tariff broke the world record, and it demonstrated the strength of the soft mini-perm structure pursued by the developer ACWA Power.

The 30-year PPA was signed with EWEC in May 2019 at the agreed tariff that won ACWA Power the tender in the first place – Dh8.26 per thousand gallons (ptg) – but after interest swaps ahead of financial close, this tariff was lowered to Dh7.80 ptg ($2.1239), thereby setting a world record. Abu Dhabi's Department of Energy (DoE) will supply power to the site but daytime electricity needs will be supplied by a 40MW solar PV captive power unit.

The $775 million debt package is characterised by step-ups rising from a floor of 90bp over Libor up to 210bp in year seven, and then up to 240bp in year 13 over the course of the theoretical 15-year tenor. Six international banks signed on 3 October 2019 ahead of financial close 13 days thereafter – Boubyan Bank, Emirates NBC, Mizuho Bank, Natixis, Norinchukin Bank, and Siemens Bank.

ACWA Power was advised by Hogan Lovells on the deal. The DoE retains a 60% stake in the project and was advised by Alderbrook, White & Case, and ILF Consulting Engineers. Taweelah IWP is expected to begin commercial operations in October 2022.

MENA power
Hamriyah IPP

A Sumitomo-led consortium led the first ever independent power producer (IPP) project in the Sharjah emirate to financial close on 15 May 2019 – 1.8GW Hamriyah combined-cycle gas turbine (CCGT) power plant.

The sponsors – Sumitomo, General Electric Financial Services, Sharjah Asset Management Holding, and Shikoku Electric Power – signed with Sharjah Electricity and Water Authority (SEWA) the 25-year PPA in January 2019, thus confirming that the emirate would be able to reduce power imports from Abu Dhabi. Currently, Sharjah imports around 50% of its power needs and the rest is generated from aging low-efficiency power stations.

The size of the debt comes to just over $1 billion, with a debt/equity ratio of 80:20. The Japan Bank for International Cooperation (JBIC) is providing the largest tranche with a direct loan of $555 million. The JBIC intervention is part of the government of Japan's initiative launched in 2018 to support infrastructure development projects that are expected to contribute to global environmental protection.

The rest of the debt is sourced from a total of six banks on the NEXI-covered commercial bank tranche of $516 million, which priced at 135bp over Libor – they are SMBC (MLA), KfW IPEX, Norinchukin Bank, SMTB, Standard Chartered Bank, Societe Generale. NEXI is providing 100% political risk cover and 90% credit risk insurance.

The closing of Hamriyah IPP "demonstrates that good planning and clear allocation of risk aligned to regional PPP norms continues to enable successful project financing for critical infrastructure projects on a large scale," a source close to the deal said.

The first of the three combined-cycle units is expected to start putting out power in May 2021, with full operation scheduled for 2023. SEWA was advised by PwC and Clifford Chance. The sponsors were advised by Alderbrook Finance, SMBC, Allen & Overy, and Tribe Infrastructure Group.

MENA Solar
DEWA IV CSP

ACWA Power surfed a wave of Chinese debt and equity to deliver the 950MW DEWA IV CSP-Solar to financial close – which will have the largest thermal solar generation in the world on a 260 metre tall tower.

The fourth phase of the Mohammed bin Rashid Al Maktoum solar park is the first to feature CSP technology. Soaring 260 metres into the air, the CSP tower will be the tallest in the world.

The PPA signed with Dubai Electricity and Water Authority (DEWA) has a hefty term-length of 35 years. This is also a dual-tariff PPA – $0.074/kWh for the CSP and $0.025/kWh for the solar PV. The addition of the 250MW solar component was late and only comprises 5% of the project income for the sponsors yet will ensure DEWA IV has a 24-hour power generation capability.

The bulk of the project financing was arranged by ICBC through a $2.19 billion facility which featured four other Chinese banks: Agricultural Bank of China, Bank of China, China Minsheng Bank, and the Silk Road Fund. The latter acquired a 49% stake in ACWA Power's renewables subsidiary – RenewCo – in June 2019.

The debt financing was completed by a smaller but still significant international tranche of $828 featuring Natixis, Standard Chartered Bank, and Union National Bank. The debt package is structured as a soft mini-perm starting at 200bp over Libor, rising sharply to 330bp after nine years.

DEWA was advised by KPMG, Ashurst, and Mott MacDonald. ACWA Power was advised by Covington & Burling, and the lenders were advised by Allen & Overy.