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Project Finance

Boom in renewables

Phillip Fletcher and Aled Davies lead the global interview panel

The Americas • Asia-Pacific • Europe • Africa • Middle East
Activity levels • Keynote deals • Industry sectors • PPP • 2017 outlook

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GETTING THE DEAL THROUGH

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Welcome to *GTDT: Market Intelligence*.

This is the third annual issue focusing on global project finance markets.

Getting the Deal Through invites leading practitioners to reflect on evolving legal and regulatory landscapes. Through engaging and analytical interviews, featuring a uniform set of questions to aid in jurisdictional comparison, *Market Intelligence* offers readers a highly accessible take on the crucial issues of the day and an opportunity to discover more about the people behind the most interesting cases and deals.

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Global Trends

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Aled Davies is a partner in the Tokyo office of Milbank, Tweed, Hadley & McCloy LLP and a member of the firm's project finance group. Based in Tokyo for almost 20 years, Aled regularly represents key stakeholders, including sponsors, lenders and export credit agencies, on the development and financing of, and acquisition of interests in, large-scale infrastructure and energy projects throughout the world, including major LNG, refinery, power and mining projects. Aled led the team representing the sponsors on the Ichthys LNG project and is currently advising on LNG project developments in the United States, Papua New Guinea and Canada, integrated LNG-to-power projects, a petrochemical facility in Vietnam and a number of gas and coal-fired IPPs, as well as on geothermal power sector projects. Aled is listed by Chambers *as a first-tier lawyer in both Japan and the wider Asia-Pacific region and as a leading lawyer by* The Legal 500 *Asia-Pacific. He has also been included in* Euromoney*'s top 35 project finance lawyers in the world. His published works have appeared in* Infrastructure Journal *and* PFI*, as well as publications by the Japan Overseas Investment Organisation.*

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What was 2016 all about then?

Phillip Fletcher & Aled Davies: 2016 will be remembered as the year of significant (and surprising) events, as well as for the departure of so many pop and screen idols. Project financing deals, however, were not as adversely affected. Although the overall number of project finance transactions fell slightly in 2016 compared with the previous year, the total value of project financed deals closed in 2016 rose to US$795 billion. This was in part achieved off the back of a number of large projects that closed, such as the US$30 billion Yamal LNG project, the US$24 billion Barakah nuclear power plant and the financing of the Tengizchevroil field in Kazakhstan. Privatisation and acquisition deals in the power transmission, power generation and pipeline sectors (in particular in the United States, Australia and western Europe) also accounted for a significant chunk of the value of closed transactions.

So what were the trends that we saw in the project finance market over 2016?

FALLING COMMODITY PRICES

PF & AD: Project finance in 2016 played out against a backdrop of commodity prices dropping precipitously from the heights of the early years of this decade, and so the final investment decision (FID) for a number of oil and gas and mining projects has been deferred or permanently cancelled, as sponsors have been forced to slash spending on capex programmes. As a consequence, 2016 did not see the volume of mega projects that we had grown accustomed to in the Middle East, Australia and the United States. However, we did see the two significant oil and gas projects already mentioned closing in Russia and Kazakhstan respectively, as well as financial close for the Liwa Plastics petrochemical project in Oman.

Eventually, supply and demand will be brought back into balance and markets will, as they always have, rebound, until the next cycle reaches its peak. For now, a number of large LNG and petrochemical projects remain in the planning or development stage in East Africa, Papua New Guinea and North America, although progress in getting to FID is slow and in some cases remains uncertain. There are also ambitious plans for petrochemical and refinery projects in Oman, Kuwait and Malaysia. Mega projects will eventually return.

LNG TO POWER

Cheap natural gas has led to the development of CCGT power plants in a wide range of regions in particular in the US. In more remote locations, sponsors have been seeking to develop plants fuelled with newly economic LNG supplies. Latin America is developing into a new market for US LNG, with a wide variety of projects now well under way: Chile's Octopus LNG and power project was due to reach financial close in December 2016 and similar projects are being pursued in Uruguay, Brazil and Colombia. South Africa, Morocco and Indonesia (as well as other South East Asian jurisdictions) are preparing for the roll-out of new LNG-fired power plants. While these will be challenging and significant projects, it is generating a buzz in the market.

BOOM IN THE RENEWABLES SECTOR

Competition and advances in technology in the renewables sector led to a noticeable reduction in the pricing for renewable energy projects, especially solar projects and projects in emerging markets. Extremely competitive tariffs were seen on projects in South Africa, Dubai and India. The development of large offshore wind farms in northern Europe, and the continued shift in the US to renewable solar and wind-generated energy continues to drive the market in terms of volumes of transactions. Renewable power made up 43.9 per cent of the project finance deals that closed in France, with about US$3 billion in debt raised. Similarly, in Germany, renewable power represented a large portion (65.3 per cent) of debt raised in 2016, followed by investments in roads and transportation infrastructure (25.5 per cent). One notable project was the US$2.125 billion financing of the MEG 1 offshore wind power project (renamed as Merkur Offshore) – planned to be one of the largest wind farms in the North Sea. The power sector in Italy came back to life after the financial crisis with the implementation of a significant number of renewable power projects and power-related infrastructure, and there are indications of new movement on projects in Spain. The power sector in the United Kingdom was the most active sector (representing nearly 85 per cent of market share) with volume of deals amounting to more than US$10 billion. Notable projects include the US$2.842 billion financing of the Beatrice Offshore Wind Farm project, the US$2.155 billion financing of the Dudgeon Offshore Wind Farm project, US$1.853 billion financing of the Race Bank Offshore Wind Farm project and the US$1.155 billion financing of the

"Indications are that the renewable energy boom will continue in the US, as individual states maintain policies to shift to renewable energy generation."

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Teesside biomass plant. Proposed changes to net metering policies in the US could potentially have a negative impact on solar projects in certain states. However, it was recently agreed that five-year extensions of tax credits for solar and wind projects may help them to remain competitive with other forms of energy projects in the US for longer. Indications are that the renewable energy boom will continue in the US, as individual states maintain policies to shift to renewable energy generation. Further afield in South East Asia, governments are seeking to expand renewable energy production (in part in response to the COP 21 Agreement) with solar, wind and geothermal power projects being pursued in a number of countries.

After the tumult caused by Fukushima, the nuclear industry also appears to be generating activity. The Barakah nuclear power plant in Abu Dhabi finally reached successful financial close, and following the confirmation of its commitment to a nuclear new-build power plant at Hinkley Point, the UK government is now engaging with Horizon and NuGen in relation to further plants. The Sinop Nuclear Power Plant in Turkey is moving into the feasibility stage. India is implementing plans for a fleet of nuclear power plants, as is Eskom in South Africa, so one can look forward to activity on one or more of these large-scale deals in the near future.

INFRASTRUCTURE AND PPP

Infrastructure development in the United States remained a top priority and this trend is likely to continue and potentially expand as the new administration seeks to demonstrate that it is bringing investment and jobs back to America by improving infrastructure that has been poorly maintained over the past 30 years. One key question that needs to be answered is how that infrastructure build-out plan will be structured and financed, particularly if fuel tax revenues remain low and other tax rates are to be cut.

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US PPP projects that reached close in 2016 ranged from civic centres to university facilities and accommodation, to airports, and toll roads and bridges. North America has seen a lot of activity around pipeline infrastructure, with six pipelines connecting US natural gas supply to Mexico reaching financial close in the past two years, backed by offtake commitments from either CFE (the Mexican power company) or Pemex (the Mexican gas utility). Mexican pipeline and energy infrastructure company Fermaca is currently developing a 2,100km network of natural gas pipelines connecting the Permian Basin in south-west Texas to the energy markets across Mexico. 2016 also saw the closing of the US$1.8 billion financing of the Vista Ridge Pipeline water project in the city of San Antonio, after the turmoil caused by the financial distress of the Spanish conglomerate Abengoa, responsible for the construction and operation of the project. There is a continued need to develop new pipeline infrastructure to move oil or gas from the production areas to the demand markets, but the practicality of achieving this will be dependent on resolving the political and environmental sensitivities that arise.

Roads and transportation and PPPs made up the majority of deals in the Netherlands. The year was marked by the financing of a few expansion projects in the road and transportation sector, such as the expansion of A6 motorway between Hollandse Brug and Almere, and the Beatrix Lock expansion project.

Following the trend of 2015, Turkey successfully implemented an enormous variety of project financing, with PPPs and power projects representing more than 80 per cent of the aggregate debt raised in 2016. Some noteworthy infrastructure projects were the US$841 million Izmir Bayrakli Hospital, the US$625.651 million Gaziantep Hospital and the US$500 million Aşağı Kaleköy Hydroelectric Power Plant.

Latin America too has seen a broad range of infrastructure deals involving ports, roads, pipelines and more, particularly in Chile (with the expansion of the Santiago airport), Colombia (featuring the 4G road and other infrastructure programme), Mexico and, more recently, Argentina. Peru looks promising, but Brazil for now remains a challenge. Chile saw a significant level of activity with US$5.009 billion in financing of transportation and infrastructure projects. The power sector was the cornerstone of deal volumes (about 43 per cent) with financing of transmission lines such as the Cardones–Polpaico transmission project (US$1.300 billion) successfully closing.

Continuing low oil prices have had a detrimental impact on the budgets of the Gulf Cooperation Council governments and in some instances this acted as a stimulus in 2015 resulting in certain Gulf states passing PPP laws and developing PPP frameworks to assist with the funding of future infrastructure projects.

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> *"There is potential to see further substitution of gas for coal and hence an increase in LNG-to-power projects worldwide. Many banks are also reviewing policies associated with financing coal-related projects (both mining and power generation)."*

Europe saw a swathe of PPP projects in France, the Netherlands and the UK, as well as the refinancing of a number of projects that were originally implemented at a time of constrained liquidity and higher margins. A number of Asian jurisdictions are trying to kick-start PPP schemes for local infrastructure, but the market probably remains in its infancy.

DATA AND TECHNOLOGY

PF & AD: There are, of course, market-driven projects that will proceed whatever the season. The dramatic growth in demand for internet and voice and data communication has created a window of opportunity for independent subsea fibre-optic cable projects, and we can expect more of these projects (including ambitious transatlantic and trans-Pacific ventures) to come to market. 2016 saw the financing of the first phase (US$588.42 million) of the Nord-Pas de Calais rural high-speed internet network, an ambitious six-year plan, started in late 2013, to deploy France's largest, rural, high-speed, broadband network in the north region of France (at an estimated cost of US$1.21 billion), as well as communication lines linking in the United States, Latin America and Asia.

POWER SECTOR: THE GENERATION GAME

In addition to the Barakah nuclear power plant in the UAE, a number of significant power projects reached financial close in the Middle East region, such as the Ibri and Sohar IPPs in Oman, Facility D and Ras Abu Fontas in Qatar, and the Hassyan coal-fired power plant in Dubai. Developers are continuing to implement new CCGT power plants in the United States, tapping into access to cheap (but otherwise stranded) shale gas production. However, generation capacity is now matching demand in a number of power markets and so we may see a cooling off or a shift into new power trading markets.

The power sector in the United States was once again the most active sector in terms of financing (representing 63 per cent of the market) with a total volume of deals amounting to US$12.033 billion, of which US$8.488 billion was raised to finance renewable power projects, such as the Broadview Wind project and Mariah North Wind project (about US$550 million each). There was also significant activity in the oil and gas sector, mainly boosted by the financing of the Dakota Access Pipeline (US$3.7 billion). Canada saw also activity in the power sector amounting to (45.3 per cent) in terms of volume (bolstered by the financing of large wind power projects, such as the Niagara Region Wind Farm project).

The power sector has also remained active in the Asia-Pacific region. The Philippines, which essentially has a merchant power market, saw a number of new power plants being developed after many years of limited activity. Indonesia saw the successful closing of the Central Java project and the Hasang hydroelectric plant and continues its aggressive increase in power generation capacity with the Cirebon expansion and the new Jawa 1 LNG-to-power plant. Some progress is being made in finalising two new power plants at Nghi Son and Duyen Hai 2 in Vietnam. The pipeline for power projects in the Asia-Pacific region is likely to continue to be strong with bidding for a variety of IPPs with novel features currently taking place. Japan's power sector saw some significant deals in 2016, with a considerable amount of financing of renewable power projects (US$1.723 billion in aggregate). A notable project in the power sector was the US$2.522 billion financing of the Fukushima coal-fired power plant.

One significant development that will impact the power sector (in particular in Asia and parts of EMEA) arises from the agreement in November 2015 upon the OECD's new rules on official export credit support for coal-fired power plants by the participants to the Arrangement on Officially Supported Export Credits. Under the new rules, which came into effect on 1 January 2017, financing will still be allowed for (i) ultra-supercritical plants irrespective of their size; (ii) up to medium-sized (ie, up to 500MW) supercritical plants in countries facing energy poverty challenges; and (iii) smaller (ie, less than 300MW) subcritical plants in poorer, developing countries. This development (as intended) will curtail coal-fired power plant development. After the recent COP 21 agreement, governments are also under pressure to reduce carbon emissions, so it is inevitable that there will be a shift in the type of power generation plants being developed in response. This combination

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of factors means there is potential to see further substitution of gas for coal and hence an increase in LNG-to-power projects worldwide. Many banks are also reviewing policies associated with financing coal-related projects (both mining and power generation).

FINANCIAL STRESS AND INSOLVENCY

While the commodity price cycle has been down, some sponsors and projects have suffered. A broad range of shale gas producers in North America have lost access to sources of new capital and now face debt restructuring or insolvency. Some of the leaders in the wind power market (such as SunEdison and Abengoa) have been forced to liquidate or restructure, in some cases because of overambitious expansion plans and in other cases on account of the withdrawal of incentive tariffs. The shipping market is suffering from significant overcapacity in a number of sectors, and many of the Korean and other yards face real challenges. In the emerging markets, a variety of host governments, seeing cash flows from royalties and taxes fall below optimistic projections, are seeking to renegotiate concession and similar agreements to capture a larger share of revenues. At an extreme, civil war in countries such as Yemen has caused operations at major projects to be suspended.

In some projects, sensible sponsors with a long-term view and desire to preserve their investments in the hopes of a more stable future are funding operating costs and interest payments, and lenders are reciprocating by deferring amortisations, to ensure that projects remain viable. The low commodity prices have also given lenders concerns as to whether some of the mega projects now approaching completion will be able to meet their debt service obligations given that the projected cash flows will not be achieved in the absence of a significant strengthening in commodity prices.

THE 'GET OUT OF CHINA' PLAN

Chinese corporations have continued with their entry into the global market as construction companies and, more recently, as sponsors of a number of projects under development in Africa, Latin America and increasingly in South East Asia. The 'get out of China' policy to develop such projects has been supported by huge financings from the Chinese financial institutions such as C-Exim, CDB and ICBC. Chinese banks are also supporting strategic projects such as Yamal LNG with US$10 billion-plus tickets. But they have also emerged on deals such as the financing of the acquisition of AusGrid in Australia and National Grid in the UK. Chinese companies are continuing to expand their footprint in Africa, constructing, investing in and lending to major infrastructure projects all over the continent. In South East Asia, we see their involvement in a US$2 billion 1,320MW coal-fired power plant under construction by China Power Hub Generation Company in Pakistan, and the 912MW Pak Beng hydro dam project on the Mekong River being developed by China Datang Overseas Investment and the Laos government and likely to tap project financing from the Chinese banks. There are other examples, such as Jawa 7 in Indonesia, Duyen Hai 2 in Vietnam, and also in Bangladesh. Latin America is also very much on the radar screen for new flows of capital.

> *"Chinese companies are continuing to expand their footprint in Africa, constructing, investing in and lending to major infrastructure projects all over the continent."*

FINANCING SOURCES AND PLAYERS

In addition to the emergence of the Chinese financial institutions as major providers of project finance, the capital adequacy requirements imposed by financial regulators continue to present challenges for banks participating in the sector. This means that multilateral and export finance lenders are required to lead many of today's largest projects. Private equity houses like Carlyle, GIP and Blackrock have all raised significant funds to invest in mezzanine and similar debt products in the power and energy sector, and insurance companies such as AIG, Allianz, Munich Ergo Asset Management and a number of UK pension scheme providers have announced a multibillion investment programme in the infrastructure sector. Japanese, and more recently Korean, financial institutions are also seeking to mobilise trillions of yen and won from pension and insurance companies looking for a predictable and stable return. This combination of constraints arising from capital adequacy restrictions and the increasing appetite of funds, insurance companies and pension funds to look for long-term predictable cash flow may well lead to a new source of funding plans for projects, either through development or refinancing; this is most likely to be focused on the US and European markets but, in the quest for diversification and return, may also lead to project bonds being more successfully launched in markets such as Asia. The impact of new sources of capital has been notable in the number of refinancings launched in 2016, as sponsors have sought longer tenors or cheaper margins, or both.

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> "Financing these investments has required the acquisition finance and project finance teams to grapple with the challenge of raising significant debt without the luxury of the time usually afforded to complete the project finance due diligence process."

M&A AND 'RECYCLING' THE ASSETS

An interesting feature of 2016 was that M&A activity picked up. Companies affected by the impact of low commodity prices have sought to raise capital to fund ongoing operations or implement strategic projects, or in some cases embark on a process of 'recycling' projects to raise funds for new investment opportunities. Governments continue to seek buyers for airports and other assets as a means to bridge funding gaps. This has, in turn, presented opportunities for those with access to capital (including funds, or development companies backed by funds, looking for yield) to acquire assets either in auctions or from distressed sellers. There has been a boom in M&A of power and oil and gas infrastructure (including pipelines, tank farms, gas storage facilities and the like) particularly in North America, as well as in Italy, Austria, the UK and elsewhere in Europe. A lot of activity in Asia revolved around Chevron's decision to sell interests in certain oil and gas fields and their geothermal energy portfolio in the Philippines and Indonesia. Financing these investments has required the acquisition finance and project finance teams at banks (and law firms) to grapple with the challenge of raising significant debt without the luxury of the time usually afforded to complete the project finance due diligence process. However, this is a new area of opportunity for those lenders willing to play.

So what can we expect in 2017?

PF & AD: As to what 2017 will bring in terms of impact on the economic, political and social landscape off the back of the significant events of 2016 – to paraphrase Shakespeare's Hamlet – 'that is the question'. However, it does seem to be the case that project finance has proved itself a resilient way to fund essential infrastructure and commodity projects, and there is no reason to believe that this will not remain the case, despite bank regulatory changes dampening the appetite of lenders to provide long-term finance.

The worldwide slowdown in the number of project-financed oil and gas deals, especially LNG, is likely to continue in 2017, as projections seem to indicate (in the absence of serious OPEC cuts) that although prices are likely to begin to rebound, they are also likely to remain low for the foreseeable future. Low commodity prices may put stress on commodity-based projects and could lead to a number of restructurings in 2017. However, as has been the case in past cycles, in the face of falling deal count, engineering, procurement and construction contractors will start to face stiffer competition to win deals, reducing capex costs for sponsors. Experience demonstrates that commodity prices will inevitably rebound – the question is more a case of when rather than if – and so some sponsors will seek to proceed with the implementation of projects to meet market demands that need to be replenished as existing contracts or projects come to the end of production. New infrastructure is likely to be high on the agenda for new projects in the United States.

We would also anticipate the trend in asset sales to continue in 2017, potentially leading to terrific opportunities for those with access to capital (including investment or pension funds) to acquire assets either at auction or from distressed sellers. The US and Europe have been active and indications are that good acquisition opportunities now present themselves in Latin America and Asia.

So, despite the challenges, the project finance players are likely to be dynamic in their response to an ever-changing marketplace. Their involvement is likely to extend beyond the narrow scope of greenfield project finance to advising on (and financing) acquisitions of existing infrastructure or commodity projects, or in providing additional financing (or face restructuring) of others that have cash-flow constraints. Project finance sponsors and lenders (and their legal and other advisers) can look forward to continued activity adjusting to the ever-changing shift in economic and political dynamics that impact the development and financing of the massive projects essential to meet social needs and the global economy's demand for commodities.

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