

2016 Preqin Global Infrastructure Report

Sample Pages



ISBN: 978-1-907012-90-7
\$175 / £105 / €150
www.preqin.com

 preqin

alternative assets. intelligent data.

The 2016 Preqin Global Infrastructure Report - Contents

CEO's Foreword	3	Section Six: Performance	
		Analysis of Infrastructure Fund Performance	39
Section One: The 2016 Preqin Global Infrastructure Report		Section Seven: Investors	
Keynote Address - <i>Dennis Kwan, MVision</i>	5	Key Investor Stats	43
		Evolution of the Investor Universe	44
Section Two: Overview of the Infrastructure Industry		Investor Appetite for Infrastructure in 2015	47
Infrastructure in 2015 - Key Stats	7	How Investors Source and Select Funds	52
Outlook for Infrastructure in 2016 - <i>Andrew Moylan, Preqin</i>	8	Appetite for Separate Accounts and Co-Investments	53
Project Finance Structures – Growth Using Innovation Is the Way Forward - <i>Geoff Haley, IPFA</i>	10	League Tables - Largest Investors by Region	55
		League Tables - Largest Investors by Type	56
Section Three: Assets under Management and Dry Powder		Section Eight: Investment Consultants	
Assets under Management and Dry Powder	11	Investment Consultant Outlook for 2016	57
Section Four: Fundraising		Section Nine: Fund Terms and Conditions	
Differentiation Key to Attracting Capital - <i>Giacomo Biondi Morra di Belforte, Capstone Partners</i>	13	Fund Terms and Conditions	61
Key Fundraising Stats	14	Investor Attitudes towards Fund Terms and Conditions	62
2015 Fundraising Market	15	Section Ten: Deals	
Funds in Market	17	Key Infrastructure Deals Stats	63
North American Fundraising	19	Deal Flow	65
European Fundraising	20	Renewable Energy Deals	68
Asian Fundraising	21	Transport Deals	69
Rest of World Fundraising	22	Social Infrastructure Deals	70
Debt Fund Market	23	Energy Deals	71
Open-Ended Fund Market	25	Utilities Deals	73
Listed Fund Market	27	Telecommunications Deals	74
Section Five: Fund Managers		Section Eleven: Service Providers	
Opportunities in Greenfield Energy Infrastructure - <i>Bradford T. Nordholm and Himanshu Saxena, Starwood Energy Group</i>	29	Leading Law Firms	75
European Marketing for Third Country Alternative Fund Managers - <i>Ben Robins, Maurant Ozannes</i>	31	Leading Debt Providers and Financial Advisors	77
Key Fund Manager Stats	32	Leading Fund Administrators and Fund Auditors	78
Fund Manager Outlook for 2016	33	Section Twelve: Placement Agents	
League Tables - Largest Fund Managers	36	Overview of Placement Agents	79
		Section Thirteen: Multi-Managers	
		Multi-Managers	83

Infrastructure in 2015 - Key Stats

Infrastructure Highlights



\$349bn

Estimated aggregate deal value of the 661 infrastructure deals completed globally in 2015.



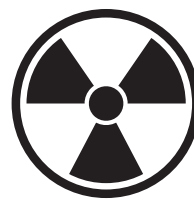
46

Number of unlisted infrastructure funds that reached a final close in 2015, securing an aggregate \$36bn.



\$22bn

Total capital distributions in H1 2015. Momentum continues from the record distributions seen in 2014.



£18bn

Value of the largest deal completed in 2015, the partnership to construct Hinkley Point C Nuclear Power Station.

Investor Satisfaction



76%

Proportion of investors that feel infrastructure investments have met or exceeded their expectations.

Capital Concentration



52%

Proportion of total capital raised in 2015 secured by the six largest funds to close.



56%

Proportion of surveyed investors that have a positive perception of infrastructure, four-times the proportion that have a negative perception (14%).



\$858mn

Average size of an unlisted infrastructure fund closed in 2015, a record high.

Competition for Assets



\$108bn

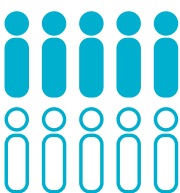
Amount of dry powder held by infrastructure firms, an all-time high.

Deal Flow



\$528mn

Average deal value increased to an all-time high in 2015.



52%

Proportion of surveyed fund managers stating that finding attractive investment opportunities is their biggest challenge over 2016.



295

The renewable energy sector had the highest number of deals in 2015.

Outlook for Infrastructure in 2016

- Andrew Moylan, Preqin

Deal Flow

The demand for infrastructure and the increased availability of debt financing, together with more investors looking to make direct investments and the high levels of dry powder available to fund managers, has led to increased competition for infrastructure assets, pushing up pricing. Fifty-one percent of fund managers are now finding it more difficult to find attractive investment opportunities than a year ago, and as a result, deal activity has slowed: 661 deals were completed at an estimated \$349bn in 2015, a decline on the 914 transactions completed for an estimated \$444bn in 2014.

Rising valuations for infrastructure assets have driven the average deal size to an all-time high of \$528mn in 2015. However, this growth has not been completely linear across the industry; transactions in the more developed infrastructure markets have seen the largest increases in average deal value, while investor appetite for the favourable characteristics of brownfield sites has driven prices for these assets up at a faster rate than both the greenfield and secondary stages. However, most fund managers are confident they can put sizeable amounts of capital to work in the coming year: over three-quarters of surveyed fund managers plan to deploy more capital in infrastructure assets in 2016 than they did in 2015.

Fundraising

Competition is not limited to deal flow; two-thirds of fund managers have seen an increase in competition for investor capital over the last year, with capital becoming increasingly concentrated among a smaller selection of managers. Investors are placing their faith in the deal-sourcing capabilities of the largest players in the industry, with 52% of the total capital raised for unlisted funds in 2015 secured by only six infrastructure funds, including sizeable offerings from ArcLight Capital Partners, KKR and I Squared Capital. In total, 46 funds reached a final close in 2015 raising \$36bn, down from 59 funds raising \$41bn in 2014. Consequently, the average fund size increased to \$858mn in 2015, an all-time high. While fewer

funds closed in 2015, funds that did reach a final close were more successful in achieving their initial targets: nearly two-thirds of infrastructure funds closed in 2015 either met or surpassed their initial target, compared to half in 2014.

The fundraising market remains a challenging place to secure commitments. The unlisted fund market is more crowded than ever before, with 179 unlisted infrastructure funds in market targeting \$120bn in institutional capital. With such a large number of funds on the road, and relatively few reaching a final close each year, fund managers must be prepared to spend a long time marketing their offerings.

Investor Appetite

Over three-quarters of respondents to Preqin's latest survey of institutional investors stated that the performance of their infrastructure fund investments over 2015 had met or exceeded their expectations. This, along with record distributions from infrastructure funds to investors in 2014, has seen appetite for the asset class rise among institutional investors: 74% of surveyed fund managers are seeing greater appetite from investors. With the majority of investors currently below their target allocation to infrastructure, capital should flow into the asset class in 2016 and beyond; almost half of respondents intend to commit more capital to infrastructure funds in 2016 than they did in 2015, while 52% intend to increase their allocation over the long term.

Despite the rising appetite, investors are often looking to commit capital to firms that have completed a full cycle of investments and exits. Notably, 2015 marked the first year that the proportion of those investors not investing in first-time funds (44%) was greater than the proportion that consider such vehicles (42%), indicative of the challenges new firms will face in securing investor capital.

Outlook

While the unlisted infrastructure fund market is relatively small in comparison to more established alternative asset classes such as private equity and

real estate, the market is growing. Assets under management now stand at \$309bn, with the level of capital available to fund managers still relatively high, standing at \$108bn, creating its own set of challenges for infrastructure firms looking to put this capital to work.

While the demand for private capital in the infrastructure space will only increase over time due to the significant gaps in government budgets to actively replace ageing infrastructure or finance new projects, investors are concerned that capital committed now may not deliver the strong, stable returns to which they have become accustomed. Only time will tell, however, whether today's asset prices will have an adverse effect on the overall performance of unlisted infrastructure funds currently investing capital. Furthermore, investors face the challenge of identifying the managers that can truly deliver the returns they seek at an acceptable level of risk within an intensely competitive market. However, record distributions, rising appetite and the large proportion of investors under-weighted to the asset class should see a continuation in the year to come of the strong fundraising figures seen in recent years.

Data Source:

Preqin's **Infrastructure Online** is the leading source of intelligence on the infrastructure industry.

This constantly updated resource includes details for all aspects of the asset class, including infrastructure transactions, fund managers, strategic investors and trade buyers, net-to-investor fund performance, fundraising information, institutional investor profiles and more.

For more information, please visit:

www.preqin.com/infrastructure

Asian Fundraising

Fundraising activity in Asia rebounded in 2015; seven funds reached a final close securing a combined \$5.3bn, nearly double the capital raised in 2014 (Fig. 4.17). The rise in institutional capital committed to Asia-focused funds over 2015 was, in part, due to the success of CCCC First Phase Private Equity Investment Fund securing CNY 15bn, 44% of the total Asia-focused capital.

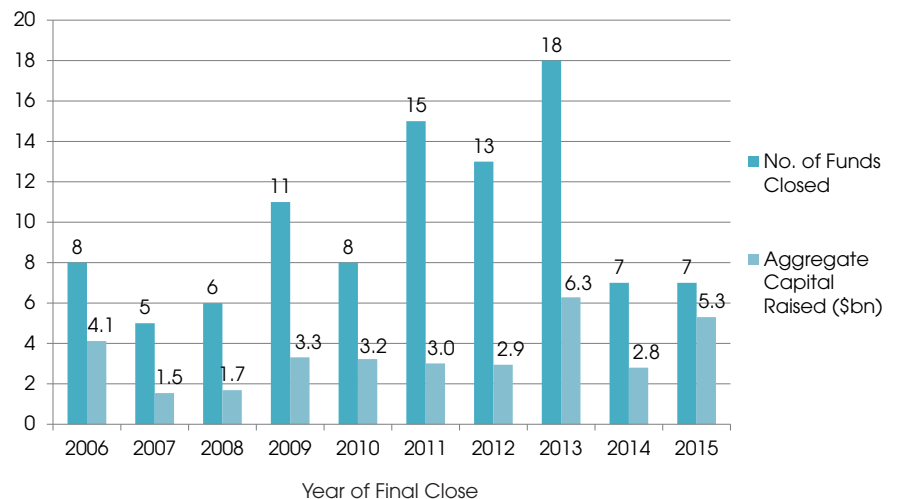
Geographic Breakdown

While country-specific funds dominated fundraising in 2014, 2015 saw both pan-Asia- and China-focused funds raise significant amounts of capital. Of the seven funds to close in 2015, three focus solely on China, three target infrastructure across Asia, while one invests in ASEAN countries. Notably, despite raising nearly \$1bn from investors in 2014, no solely India-focused funds reached a final close in 2015.

Funds in Market

As of January 2016, there were a total of 20 Asia-focused unlisted infrastructure funds targeting \$11.1bn in institutional

Fig. 4.17: Annual Asia-Focused Unlisted Infrastructure Fundraising, 2006 - 2015*



Source: Preqin Infrastructure Online

investor capital, slightly less than in January 2015, when the same number of funds sought \$12.2bn. Fifty percent of these funds have held an interim close, raising a combined \$2.6bn. However, fundraising may continue to be challenging for firms raising Asia-focused

funds; 60% of funds in market have spent more than two years on the road. There are seven India-focused funds on the road, six that have a pan-Asia focus, and five that specifically target ASEAN countries. The remaining funds will primarily target Chinese infrastructure.

Fig. 4.18: Five Largest Asia-Focused Unlisted Infrastructure Funds Closed in 2015*

Fund	Firm	Final Close Date	Fund Size (mn)	Geographic Focus
CCCC First Phase Equity Investment Fund	CCCC Fund Management	Nov-15	15,000 CNY	China
Equis Asia Fund II	Equis Funds Group	Feb-15	1,000 USD	Asia
Guangdong Environmental Protection Fund	Guangdong Technology Financial Group	Dec-15	6,300 CNY	China
Guangdong Renewable Energy Industry Fund	Guangdong Oriental Millennium Renewable Energy Industry Fund Management	Sep-15	3,080 CNY	China
Equis Direct Investment Fund	Equis Funds Group	Feb-15	300 USD	Asia

Source: Preqin Infrastructure Online

Key Facts



65%

Proportion of funds in market managed by domestic firms.



\$2.25bn

Target size of Macquarie Asia Infrastructure Fund, the largest Asia-focused fund being marketed.



15%

Proportion of total capital raised in 2015 accounted for by Asia-focused funds.

*Data is correct as at time of publishing (15 January 2016); 2015 fundraising figures are expected to increase as further data becomes available.

Opportunities in Greenfield Energy Infrastructure

- Bradford T. Nordholm, CEO & Managing Director and
Himanshu Saxena, Managing Director, Starwood Energy Group

What do you see as the most important changes within the US energy sector right now?

B: I have been doing this for a couple of decades and the changes underway now are as dramatic as anything we have seen since the de-regulation of the wholesale electric power markets in the US in the mid-nineties. The big things include a pretty massive retirement of coal-fired power plants – both for economic reasons (gas is cheaper than coal) and regulatory reasons (it is very expensive for plants to conform to new emissions standards). Another big trend underway is the significant reduction in the cost of renewable electric power generation technologies – more specifically, solar and wind – located in the right areas.

H: The whole commodity price environment is probably the key engine for the changes we are seeing in our sector now. The US has gone from being a net importer of energy to a net exporter. The shale gas revolution has caused the price of gas to drop to the \$2/MMBTU range and the forward curve for gas is expected to remain depressed for a long time. So when Brad is talking about coal retirement, that is being driven by the fact that the US is awash with gas. The US has this great opportunity to reconfigure its energy sources by replacing the old carbon-heavy generation assets with gas-fired assets mixed with renewables.

The other factor is the changing mindset – whether for corporations or individuals – where the environment has become more relevant. We are seeing a large number of corporates voluntarily signing pledges to be green in their procurement. And then there is regulation. The Obama administration has come out with its Clean Power Plan that establishes state-wide carbon dioxide emissions standards. If implemented, this would have everlasting effects on our sector, because it would force the de-carbonization of our economy.

What opportunities do these changes create for investment in US energy?



“There are huge opportunities. It is estimated that over the next 10 years, there will be approximately \$300bn of new investment opportunities in electric power generation infrastructure.”

B: We see those opportunities in developing and building new renewable power stations – including wind power and solar – in new natural gas-fired power plants, in new electric storage facilities and in new electric power transmission projects.

H: There are three main legs to our investment strategy. The first is to buy and build conventional gas-fired assets. The second is to buy and build new renewable assets. And the third is to buy and build transmission lines. All are strongly affected and reinforced by the changes that are underway. Replacement of coal with new gas and renewable power plants – whether to supply clean power to customers or to meet mandates such as the Clean Power Plan – creates significant opportunities. We have built almost 500MW of wind in the last two years, and we are on track to have more than 1GW of wind in our portfolio.

How does your approach differ from that of other players operating in the industry today?

B: Starwood Energy next year will celebrate its 10th anniversary, and from the very beginning, we have been focused on working across a multitude of technologies including renewable technologies, transmission and natural gas-fired generation. We have always been willing to pursue, in a very disciplined fashion, greenfield power generation and power transmission opportunities. In 2006, other private equity and infrastructure funds were simply not active in these projects and certainly not with the kind of disciplined approach that we followed. Fast forward 10 years: we will soon have completed 16 greenfield power generation and power transmission projects. If you look at the history, it has been outstanding: on time and on budget, or even ahead of budget at times.

H: What we do takes a lot of patience and expertise. Some of our projects take months, and some take years to develop. We are not deploying a multibillion-dollar fund. The amount of capital we are investing is perfectly sized to deploy in \$50-150mn chunks, and we can be patient in nurturing the projects and craft the deals piece by piece to create value. That amount of time and expertise is something that a number of our competitors do not have, or are not able to develop.

What are the key things you look for in the projects you invest in, both the greenfield developments and the opportunistic acquisitions you mentioned?

B: When we speak about greenfield, we are speaking about a very specific type of project. We will only commit meaningful capital to a new greenfield project when we have a long-term committed revenue contract from an investment-grade counterparty. We will only commit significant capital when we have all the operating permits in place, and when we have a fixed price, a full wrap – which means a full guarantee, an engineering procurement construction contract. So when we talk about a

increasingly recognizing infrastructure's potential to generate stable returns and its inflation-hedging characteristics. While the majority of investors intend to commit more capital or maintain the same level of commitments over 2016, 26% of investors will look to reduce the amount of capital they invest in infrastructure over 2016. This could be a reflection of the potential impact on returns of rising valuations of assets and the limited availability of attractive investment opportunities.

Investors' Infrastructure Allocations over the Long Term

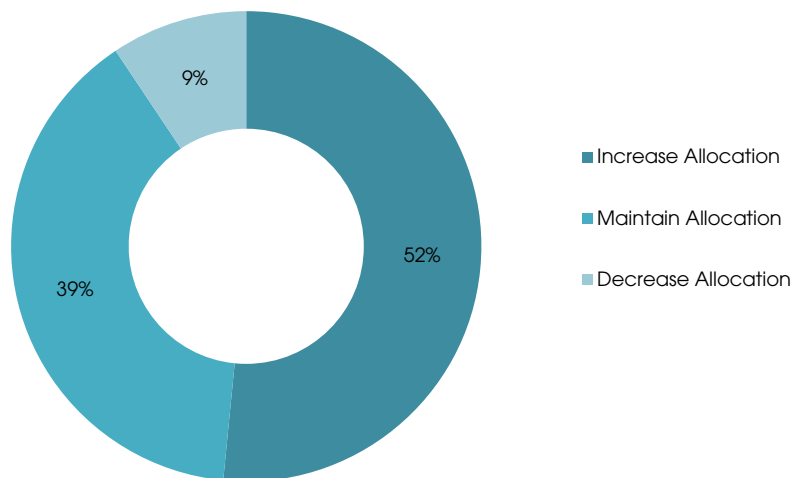
The outlook appears positive for the continued growth of the asset class, with the majority of investors stating that they intend to increase allocations over the longer term (Fig. 7.13). The average current allocation to infrastructure now stands at 4.3% of total assets under management, although as investors become more experienced and comfortable with the risks associated with investing in infrastructure, it is likely that allocations will increase. A further 39% of investors stated that they would maintain their current allocation to the asset class.

Future Searches and Capital Outlay

Preqin's **Infrastructure Online** tracks the activity and future investment plans of over 2,400 active investors in the infrastructure asset class. As shown in Fig. 7.14, 61% of investors that expect to be active in the next 12 months plan to invest less than \$100mn in infrastructure over 2016. However, there are some investors that will make considerable commitments to the asset class in the coming year; 17% of investors that plan to be active intend to commit at least \$350mn to unlisted funds in 2016. In terms of the number of investments, 41% of active investors plan to make three or more new fund commitments in the next 12 months, including 17% planning to invest in five or more vehicles (Fig. 7.15).

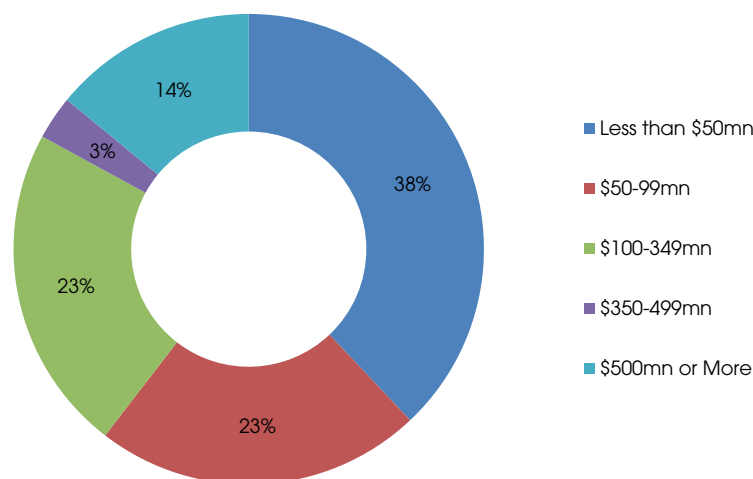
Investors planning new commitments in the next year continue to display a strong preference for unlisted infrastructure funds as a route to market, with 81% of active investors looking to commit capital through such funds in the next 12 months. Direct investment in infrastructure assets is also favoured by a significant 40% of institutions, with a relatively small proportion (9%) of active investors planning to invest through listed funds in 2016.

Fig. 7.13: Investors' Intentions for Their Infrastructure Allocations in the Longer Term



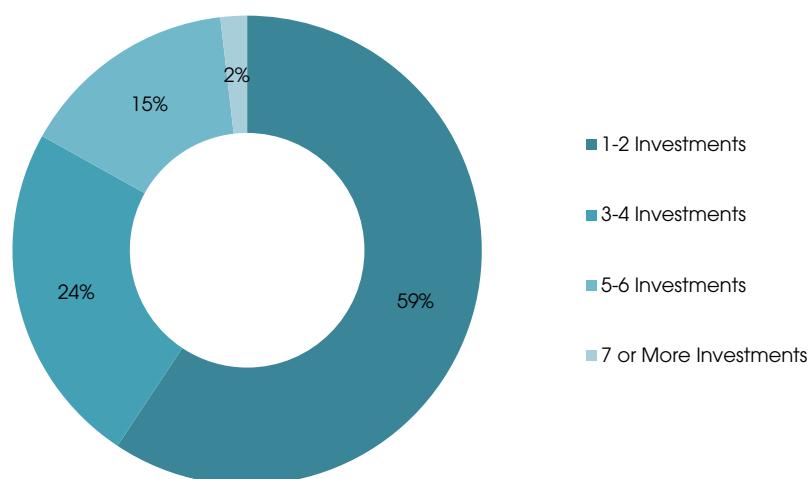
Source: Preqin Investor Interviews, December 2015

Fig. 7.14: Amount of Fresh Capital Investors Plan to Invest in Infrastructure over the Next 12 Months



Source: Preqin Infrastructure Online

Fig. 7.15: Number of Infrastructure Investments Investors Plan to Make over the Next 12 Months



Source: Preqin Infrastructure Online

© 2016 Preqin Ltd. / www.preqin.com

Renewable Energy Deals

Key Facts: 2008-2015



52%

Proportion of deals that were for greenfield assets.



49%

Proportion of deals that were for wind power assets.



14%

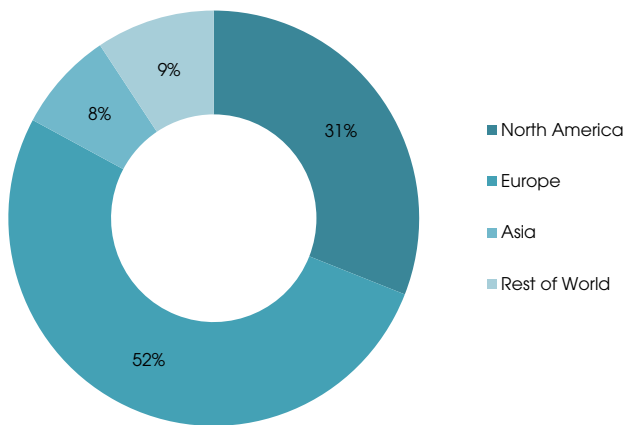
Proportion of deals that were based in the UK, the largest proportion of any single country.



7%

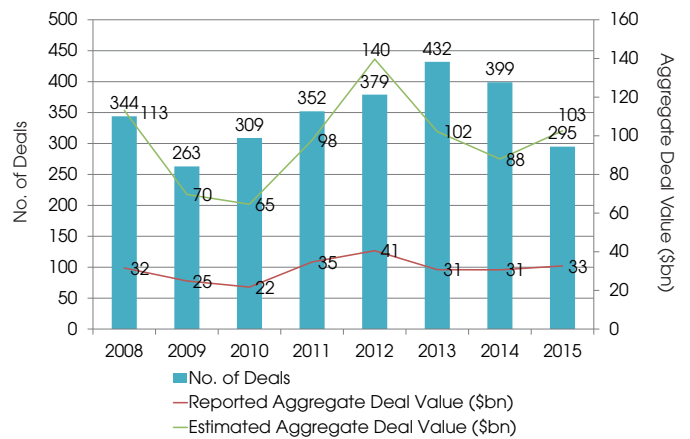
Proportion of deals that were valued at \$1bn or more.

Fig. 10.9: Breakdown of Completed Renewable Energy Infrastructure Deals by Region, 2008 - 2015



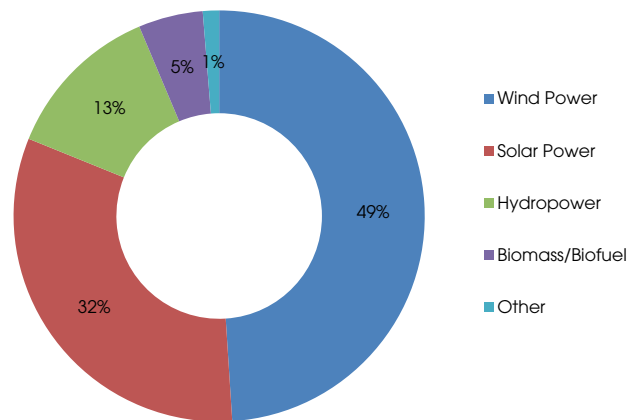
Source: Preqin Infrastructure Online

Fig. 10.8: Number and Aggregate Value of Renewable Energy Infrastructure Deals Completed Globally, 2008 - 2015



Source: Preqin Infrastructure Online

Fig. 10.10: Breakdown of Completed Renewable Energy Infrastructure Deals by Industry, 2008 - 2015



Source: Preqin Infrastructure Online

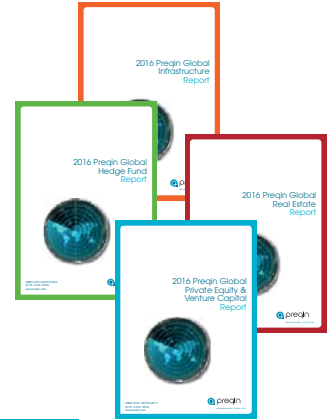
Fig. 10.11: Five Notable Renewable Energy Infrastructure Deals Completed in 2015

Asset	Location	Industry	Investor(s)	Deal Size (mn)	Stake (%)	Date
Galloper Offshore Wind Farm	UK	Wind Power	Macquarie Bank, Siemens Financial Services, UK Green Investment Bank	1,600 GBP	75	Feb-15
Hareon Solar Portfolio	China	Solar Power	United Photovoltaics Group	8,800 CNY	100	May-15
Aditya Birla Renewables	India	Solar Power	Abraaj Capital, Aditya Birla Group	1,000 USD	100	Oct-15
WSIP Warehouse	US	Renewable Energy	GS Infrastructure Investment Group, SunEdison	1,000 USD	100	Aug-15
Gode Wind Farm I	Germany	Wind Power	Global Infrastructure Partners	780 EUR	50	Sep-15

Source: Preqin Infrastructure Online

The 2016 Preqin Global Alternatives Reports are the most detailed and comprehensive reviews of the alternative assets industry available, offering exclusive insight into the latest developments in the private equity, hedge fund, real estate and infrastructure asset classes.

- Access **in-depth analysis** and **comprehensive statistics**, helping you to understand the latest trends in fundraising, performance, investors, deals, fund managers, secondaries, fund terms, placement agents, consultants, law firms and much more.
- View **historical data** alongside the most important **industry developments**, enabling you to put recent developments into context.
- Read contributions from some of the industry's **leading figures**.
- Improve your **presentations, marketing materials** and **company reports**.
- Discover the **most important players** in every area of the industry.
- **Answer key questions** – Who is investing? How much has been raised? Where are the centres of activity? Where is the capital going? What are the biggest deals? What is the outlook for the industry?



For more information visit: www.preqin.com/reports

I would like to purchase:
PRINT:

Name	1 Copy	✓	2 Copies (10% saving)	✓	5 Copies (25% saving)	✓	10 Copies (35% saving)	✓	Data Pack* (Please tick)
Private Equity	\$175/£105/€150		\$315/£190/€270		\$655/£390/€560		\$1,135/£680/€975		
Hedge Funds	\$175/£105/€150		\$315/£190/€270		\$655/£390/€560		\$1,135/£680/€975		
Real Estate	\$175/£105/€150		\$315/£190/€270		\$655/£390/€560		\$1,135/£680/€975		
Infrastructure	\$175/£105/€150		\$315/£190/€270		\$655/£390/€560		\$1,135/£680/€975		
All Titles (25% Saving!)	\$525/£315/€450		\$945/£565/€810		\$1,965/£1,180/€1,685		\$3,410/£2,045/€2,925		

Shipping Costs: \$40/£10/€25 for single publication \$20/£5/€12 for additional copies (Shipping costs will not exceed a maximum of \$60/£15/€37 per order when all shipped to same address. If shipped to multiple addresses then full postage rates apply for additional copies) If you would like to order more than 10 copies of one title, please contact us for a special rate

Completed Order Forms:

Post (to Preqin):

New York
One Grand Central Place
60 E 42nd Street
Suite 630
New York
NY 10165
Tel: +1 212 350 0100
Fax: +1 440 445 9595

London
3rd Floor
Vintners' Place
68 Upper Thames Street
London, EC4V 3BJ
Tel: +44 (0)203 207 0200
Fax: +44 (0)87 0330 5892

Singapore
One Finlayson Green
#11-02
Singapore
049246
Tel: +65 6305 2200
Fax: +65 6491 5365

San Francisco
One Embarcadero Center
Suite 2850
San Francisco
CA 94111
Tel: +1 415 316 0580
Fax: +1 440 445 9595

Hong Kong
Level 9, Central Building
1-3 Pedder Street
Central, Hong Kong
Tel: +852 3958 2819
Fax: +852 3975 2800

Email:
info@preqin.com

DIGITAL:

Name	Single-User Licence	✓	Enterprise Licence**	✓	Data Pack* (Please tick)
Private Equity	\$175/£105/€150		\$1,000/£625/€850		
Hedge Funds	\$175/£105/€150		\$1,000/£625/€850		
Real Estate	\$175/£105/€150		\$1,000/£625/€850		
Infrastructure	\$175/£105/€150		\$1,000/£625/€850		
All Titles (25% Saving!)	\$525/£315/€450		\$3,000/£1,875/€2,550		

*Data Pack Costs: \$300/£180/€250 for single publication.
**Enterprise Licence allows for unlimited distribution and printing within your firm. Printing is disabled on Single-User Licences.
Digital copies are exclusive of VAT where applicable.

Payment Details

- Cheque enclosed (please make cheque payable to 'Preqin')
- Charge my:
 - Visa
 - Mastercard
 - Amex
- Please invoice me

Card Number: _____
 Name on Card: _____
 Expiration Date: _____
 Security Code: _____



American Express, four digit code printed on the front of the card.
 Visa and Mastercard, last three digits printed on the signature strip.

Shipping Details:

Name: _____
 Firm: _____
 Job Title: _____
 Address: _____
 City: _____
 State: _____
 Post/Zip: _____
 Country: _____
 Telephone: _____
 Email: _____