



CLEAN ENERGY

GLOBAL LEAGUE TABLES

2016

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Clean Energy League Tables 2016

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Project & Asset Finance – Lead Arrangers

Top 20 Lead Arrangers by Number of Deals

Rank	Lead Arranger	Number of Deals	Deal Credit (\$ million)
1	Triodos Bank	70	568
2	Nord/LB	26	1,213
3	HSH Nordbank	20	845
4	KfW Bankengruppe	19	1,761
5	European Investment Bank	16	3,045
6	Mitsubishi UFJ Financial Group	15	1,193
7	European Bank for Reconstruction and Development	14	540
8	Rabobank	12	1,282
9	Natixis	12	947
10	Sumitomo Mitsui Banking Corporation	11	961
11	BNP Paribas	10	1,355
12	Société Générale	8	1,089
13	Crédit Agricole	8	796
14	NIB Bank	8	552
15	Mizuho Financial Group	8	515
16	DNB	7	1,004
17	Banco Santander	7	593
18	ING Group	7	519
19	Siemens Financial Services	7	360
20	Proparco	7	234

Triodos Bank was the most active lead arranger in 2016 by number of project finance deals, investing in 70 deals totalling \$567 million. Due to confidentiality, notable deals cannot be disclosed in this publication.

The second most active by number of deals and fifth most active by deal credit was Nord/LB, arranging 26 deals worth \$1.2 billion. Notable transactions included \$786 million for a nine-project US solar portfolio, \$333 million for the 300 MW South Plains II wind farm in Texas and \$267 million for the 100 MW Mustang solar farm in California. The bank also invested in wind projects in Northern Ireland.

HSH Nordbank comes in third, arranging 20 deals valued at \$845 million. Notable investments comprised \$301 million for the 148 MW Lehtirova wind farm in Sweden and \$120 million for the repowering of the Vormark wind project in Germany.

KfW Bankengruppen takes fourth place, arranging \$1.7 billion across 19 deals. Its four biggest deals comprised the 588 MW Beatrice offshore wind farm, 402 MW Dudgeon offshore wind farm, 400 MW Merkur offshore wind farm and the 309 MW Otary Rental wind farm. The bank also arranged \$723 million in financing for the 230 MW Niagara Region onshore wind farm in Canada.

The fifth most active lead arranger by number of deals and top by deal credit was European Investment Bank, arranging \$3 billion across 16 deals. Notable projects financed included the \$3.7 billion 588 MW Beatrice offshore wind farm, the \$1.7 billion 1.2 GW Caithness Moray transmission link and the \$1.2 billion 370 MW Norther offshore wind facility in the North Sea.

Project & Asset Finance – Lead Arrangers

Top 20 Lead Arrangers by Deal Credit

Rank	Lead Arranger	Number of Deals	Deal Credit (\$ million)
1	European Investment Bank	16	3,045
2	KfW Bankengruppe	19	1,761
3	BNP Paribas	10	1,355
4	Rabobank	12	1,282
5	Nord/LB	26	1,213
6	Mitsubishi UFJ Financial Group	15	1,193
7	Société Générale	8	1,089
8	DNB	7	1,004
9	Sumitomo Mitsui Banking Corporation (SMBC)	11	961
10	Natixis	12	947
11	HSH Nordbank	20	845
12	Crédit Agricole	8	796
13	Banco Santander	7	593
14	Triodos Bank	70	568
15	NIB Bank	8	552
16	European Bank for Reconstruction and Development	14	540
17	ING Group	7	519
18	Mizuho Financial Group	8	515
19	Morgan Stanley	2	506
20	Lloyds Banking Group	5	505

With investments totalling more than \$3 billion, the European Investment Bank ranks first as the most active lead arranger in 2016 by deal credit. Its notable investments are outlined on the previous slide.

KfW Bankengruppen comes in second, arranging \$1.7 billion across 19 deals. KfW's notable deals are also listed on the previous slide.

BNP Paribas takes third place with \$1.3 billion of investments across 10 deals. Its largest transaction was the 588 MW Beatrice offshore wind project, with the 402 MW Dudgeon offshore asset a close second.

Rabobank and Nord/LB rank fourth and fifth by deal credit, arranging \$1.28 and \$1.21 billion across 12 and 26 deals respectively. Rabobank's three most notable deals all involved financing for offshore wind projects namely the 400 MW Merkur asset, the 370 MW Norther facility and the 309 MW Rentel development.

Mitsubishi UFJ Financial Group takes fourth place, investing \$1.1 billion in 15 projects. As well as the Beatrice, Dudgeon and Norther offshore wind projects, the bank helped arrange deals including the 230 MW Niagara Region wind farm and the 272 MW Seigneurie de Beaupré, both in Canada.

Other banks that arranged more than \$1 billion in debt in 2016 included Société Générale and DNB Group.

Project & Asset Finance – Legal Advisers

Top 20 Legal Advisers by Number of Deals

Rank	Legal Adviser	Number of Deals	Deal Credit (\$ million)
1	Latham & Watkins	33	3,879
2	Watson Farley & Williams	31	1,518
3	Milbank, Tweed, Hadley & McCloy	28	4,071
4	Allen & Overy	25	11,581
5	TLT	21	335
6	Linklaters	18	7,019
7	Norton Rose Fulbright	16	8,211
8	Clifford Chance	14	3,675
9	Mayer Brown	12	741
10	DLA Piper	11	1,905
11	Orrick, Herrington & Sutcliffe	11	1,654
12	Arthur Cox	11	446
13	A&L Goodbody	8	265
14	Krogerus	8	32
15	McCarthy Tétrault	7	1,421
16	McCann FitzGerald	6	206
17	Simpson Thacher & Bartlett	5	827
18	Eversheds	5	88
19	Jones Day	3	3,066
20	Chadbourne & Parke	3	976

Latham & Watkins is crowned the most active legal adviser to clean energy project & asset finance transactions in 2016, advising on 33 deals totalling \$3.9 billion. The law firm primarily advised on financings of wind and solar projects across the US. Notable transactions comprised the \$484 million project financing for the 400 MW Grand Prairie wind farm and the \$350 million tax equity financing for the Mariah North wind farm. Outside the US, the firm also advised on financings of biomass and hydro projects in the Philippines.

Coming in second is Watson Farley & Williams, advising on 31 deals valued at \$1.5 billion. The firm advised mostly on project financings outside the US, with notable transactions taking place in India, China and France. Its largest deal in terms of value was the \$231 million project financing for a 150 MW wind project in Lijiang City, China.

In third place, having advised on 28 deals worth \$4.07 billion, is Milbank. The law firm primarily advised on financings of wind and solar projects across the US. Notable transactions comprised the \$500 million project financing for the 400 MW Cimarron Bend wind farm and the \$350 million tax equity financing for the Block Island wind farm.

Allen & Overy takes fourth place, advising on 25 deals valued at \$11.6 billion. Its most notable deals are listed on the next side.

TLT comes at fifth place, advising 21 deals worth \$335 million. The firm's footprints were found in UK. Its largest deal was a 130MW portfolio of solar projects in southern England (\$182.1 million).

Project & Asset Finance – Legal Advisers

Top 20 Legal Advisers by Deal Credit

Rank	Legal Adviser	Number of Deals	Deal Credit (\$ million)
1	Allen & Overy	25	11,581
2	Norton Rose Fulbright	16	8,211
3	Linklaters	18	7,019
4	Milbank, Tweed, Hadley & McCloy	28	4,071
5	Latham & Watkins	33	3,879
6	CMS	2	3,811
7	Pinsent Masons	1	3,769
8	Clifford Chance	14	3,675
9	Jones Day	3	3,066
10	Loyens & Loeff	2	2,509
11	Kromann Reumert	2	2,509
12	DLA Piper	11	1,905
13	Hogan Lovells	1	1,786
14	Orrick, Herrington & Sutcliffe	11	1,654
15	Watson Farley & Williams	31	1,518
16	McCarthy Tétrault	7	1,421
17	Thommessen	1	1,218
18	Chadbourne & Parke	3	976
19	Simpson Thacher & Bartlett	5	827
20	Mayer Brown	12	741

Allen & Overy was the most active legal adviser to clean energy project & asset finance transactions by deal credit in 2016, having advised on 25 deals totalling \$11.6 billion. The firm advised on four project financing deals over \$1 billion for offshore wind farms comprising the \$2.1 billion 402 MW Dudgeon project, the \$1.9 billion 573 MW Race Bank facility, the \$1.7 billion 396 MW Merkur project and the \$1.1 billion 309 MW Rentel asset. It also advised on the \$1.2 billion 299 MW Teesside biomass plant in the UK.

Norton Rose takes second place, having advised on 16 deals worth \$8.2 billion. As well as the Merkur and Sapphire projects, the firm's most notable transaction was the \$3.1 billion 588 MW Beatrice offshore wind farm.

Linklaters ranks at third place, having advised on 18 deals worth over 7 billion. The most notable deal was also the 588 MW Beatrice. It also advised the other two utility-scale projects – 299MW Teesside biomass plant and 402 Dudgeon offshore wind farm.

Milbank and Latham & Watkins come, fourth and fifth, having advised on deals totalling, \$4.1 billion and \$3.9 billion respectively. Their most notable transactions were listed on the previous side.

Four other law firms that have deal credit of more than \$3 billion in 2016 ranking tables were CMS, Pinsent Masons, Clifford Chance and Jones Day.

M&A – Financial Advisers

Top 10 Financial Advisers by Deal Credit

Rank	Financial Adviser	Number of Deals	Deal Credit (\$ million)
1	Credit Suisse	4	2,074
2	HSBC	1	1,675
3	JP Morgan	3	1,625
4	Morgan Stanley	1	1,600
5	JM Financial Ltd.	1	1,378
6	Citigroup	2	1,100
7	Duff & Phelps	1	1,100
8	Rothschild Group	3	1,033
9	KPMG	3	887
10	BNP Paribas	4	746

Credit Suisse was the most active financial adviser to M&A transactions by deal credit in 2016, advising on four deals worth nearly \$2.1 billion. The bank advised Duke Energy on the \$1.2 billion sale of its Brazilian assets to China Three Gorges and SSE on the \$500 million sale of the Clyde wind farm to Greencoat UK Wind and GMPF & LPFA Infrastructure.

HSBC comes in second, advising on one M&A transaction totalling \$1.6 billion, namely Doughty Hanson's divestment of LM Wind Power to GE.

JP Morgan Chase Bank comes in third, advising on two deals totalling \$1.2 billion. As well as advising on the Duke Energy Brazilian deal, the firm advised on the Waste Connections-Progressive Waste Solutions merger.

Morgan Stanley ranks fourth, advising on the \$1.6 billion sale of EQT Infrastructure II's energy from waste plant to Beijing Enterprises Holdings Ltd.

JM Financial takes fifth place thanks to its advisory role on Tata Power's \$1.3 billion acquisition of Welspun Renewable Energy's 1.1 GW renewable portfolio in India.

M&A – Legal Advisers

Top 20 Legal Advisers by Number of Deals

Rank	Legal Adviser	Number of Deals	Deal Credit (\$ million)
1	Eversheds	39	665
2	Watson Farley & Williams	34	5,083
3	TLT	30	437
4	Latham & Watkins	15	3,592
5	Milbank, Tweed, Hadley & McCloy	14	1,628
6	Orrick, Herrington & Sutcliffe	14	1,475
7	CMS	11	1,060
8	Linklaters	9	5,277
9	Krogerus	9	422
10	Mayer Brown	8	2,174
11	Arthur Cox	7	n/d
12	Clifford Chance	5	961
13	White & Case	5	683
14	Matheson	5	n/d
15	Norton Rose Fulbright	4	n/d
16	Skadden, Arps, Slate, Meagher & Flom & Affiliates	3	2,481
17	Simpson Thacher & Bartlett	3	408
18	McCarthy Tétrault	3	322
19	Ashurst	3	220
20	Allen & Overy	2	2,197

Eversheds was the most active provider of legal advisory services to M&A transactions in 2016, advising on 39 deals totalling \$665 million. These included deals for the Pen Bryn Oer and Batsworthy Cross wind farms in the UK and a range of solar transactions.

Watson Farley & Williams takes second place, advising on 34 deals totalling \$5.1 billion. The most notable transactions were DONG Energy's divestment of a 50% stake in the 258 MW Burbo Bank Extension offshore wind project and Cereburus' \$1 billion acquisition of Renovalia Energy.

TLT ranks third, advising on 30 deals valued at \$436 million. Notable deals included Rockfire Capital's \$88 million acquisition of the Swindon solar project and NTR's \$100 million acquisition of the 29 MW Twin Rivers wind farm.

In fourth position is Latham & Watkins, providing advisory services to 15 deals totalling \$3.5 billion. Its most notable transaction was the 584 MW Canadian hydro portfolio acquisition by ArcLight Capital Partners, worth \$1 billion.

Milbank and Orrick both come in fifth place, advising on 14 deals totalling \$1.6 billion and \$1.4 billion respectively. Milbank's most notable transaction was Brookfield's \$860 million acquisition of the 252 MW Holtwood and 40 MW Wallenpaupack hydro projects.

M&A – Legal Advisers

Top 20 Legal Advisers by Deal Credit

Rank	Legal Adviser	Number of Deals	Deal Credit (\$ million)
1	Watson Farley & Williams	34	5,083
2	Latham & Watkins	15	3,592
3	Linklaters	8	2,777
4	Skadden, Arps, Slate, Meagher & Flom & Affiliates	3	2,481
5	Allen & Overy	2	2,197
6	Mayer Brown	8	2,174
7	Slaughter and May	1	1,979
8	Hengler Mueller	1	1,686
9	Milbank, Tweed, Hadley & McCloy	14	1,628
10	Orrick, Herrington & Sutcliffe	14	1,475
11	AZB & Partners	1	1,378
12	Kirkland & Ellis	2	1,100
13	CMS	11	1,060
14	Clifford Chance	5	961
15	White & Case	5	683
16	Bryan Cave	1	683
17	Rajah & Tann	1	683
18	Eversheds	39	665
19	TLT	30	437
20	Krogerus	9	422

Watson Farley & Williams was the most active adviser to clean energy M&A transactions by deal credit in 2016, advising on 34 deals totalling \$5 billion. The firm's most notable transactions are listed on the previous slide.

Latham & Watkins ranks second, advising on 15 deals totalling \$3.5 billion. Its most notable deals are also listed on the previous side.

Linklaters takes third place, advising on eight deals totalling \$2.7 billion. Its most notable transaction was DONG Energy's sale of a 50% stake in its 573 MW Race Bank wind farm to Australian banking group Macquarie. It also advised on two wind acquisitions in France by Innergex Renewable Energy.

Skadden, Arps, Slate, Meagher & Flom ranks fourth, advising on three deals totalling \$2.4 billion. The firm's most notable transactions were Trina Solar's \$1.1 billion going-private acquisition and the \$1.2 billion acquisition by China Three Gorges of Duke Energy's Brazilian holdings.

Allen & Overy and Mayer Brown rank fifth, both advising on deals totalling nearly \$2.2 billion. Allen & Overy acted as legal adviser on the Race Bank deal as well as Balfour Beatty and Equitix's acquisition of the Humber Gateway Transmission Link from E.ON.

Mayer Brown advised on eight deals including the sale of TransCanada US hydro portfolio to ArcLight Capital Partners affiliate Great River Hydro and Cubico Sustainable Investments \$465 million acquisition of two wind farms in Brazil from local developer Casa dos Ventos.

Green Bonds – Lead Arrangers

Top 20 Lead Arrangers by Number of Deals

Rank	Lead Arranger	Number of Deals	Deal Credit (\$ million)
1	Bank of America	48	7,566
2	JP Morgan	33	4,535
3	Citigroup	24	2,012
4	Credit Agricole	23	4,201
5	Morgan Stanley	23	2,144
6	SEB	21	2,825
7	HSBC	20	3,806
8	Goldman Sachs	15	1,983
9	BNP Paribas	14	2,438
10	RBC Capital Markets	11	803
11	Barclays	12	2,016
12	Bank of China	10	2,820
13	Wells Fargo	8	526
14	Unicredit Spa	8	1,322
15	Guotai Junan Securities	7	1,427
16	China Construction Bank	6	2,700
17	Industrial and Commercial Bank of China	6	2,561
18	Deutsche Bank	6	1,233
19	TD Bank	6	1,092
20	China Development Bank	6	1,069

Bank of America was the most active arranger of green bonds in 2016, arranging 48 bonds totalling \$7.5 billion. It also ranks first by deal credit. Its largest bond was Bank of China's \$3 billion multi-currency issuance in July. It also helped arrange two sizable German green bonds, namely a \$1.75 billion municipal issuance from the State of North Rhine-Westphalia and a \$1.5 billion bond from KfW Bankengruppe.

Coming in second is JP Morgan, arranging 33 green bonds with a deal credit of \$4.5 billion. It arranged four issuances with a deal value of more than \$1 billion in 2016. These comprised Grupo Aeroportuario de la Ciudad de México's \$2 billion green bond, the European Investment Bank's \$1.5 billion green bond, Apple's \$1.5 billion green bond and the Asian Development Bank's \$1.3 billion green bond.

Citigroup ranks third in 2016, arranging 24 green bonds worth \$2 billion. It also helped arrange Grupo Aeroportuario de la Ciudad de México's issuance in September as well as the \$1.1 billion issuance from Spanish developer Iberdrola in April.

In joint fourth place is Credit Agricole and Morgan Stanley who each helped arrange 23 green bonds in 2016. Of Credit Agricole's \$4.2 billion of green bonds, a notable transaction was NRW Bank's \$1.3 issuance in October, in addition to previously mentioned bonds from Bank of China and the Asian Development Bank. Morgan Stanley arranged \$2.1 billion of green bonds including Iberdrola's \$789 million issuance for the refinancing of its US wind portfolio.

Green Bonds – Lead Arrangers

Top 20 Lead Arrangers by Deal Credit

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1	Bank of America	48	7,566
2	JP Morgan	33	4,535
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4	HSBC	20	3,806
5	SEB	21	2,825
6	Bank of China	10	2,820
7	China Construction Bank	6	2,700
8	Industrial and Commercial Bank of China	6	2,561
9	BNP Paribas	14	2,438
10	Goldman Sachs	15	1,983
11	Morgan Stanley	23	2,144
12	Haitong Securities	4	1,963
13	Citigroup	24	2,012
14	Agricultural Bank of China	4	1,888
15	Barclays	12	2,016
16	Huatai Securities	3	1,611
17	China International Capital Corporation	3	1,479
18	Guotai Junan Securities	7	1,427
19	Unicredit	8	1,322
20	Deutsche Bank	6	1,233

Bank of America arranged the largest amount of deals at \$7.5 billion. Its most notable green bonds are detailed on the previous slide.

JP Morgan comes in second place, arranging \$4.5 billion worth of green bonds in 2016. Its most notable transactions are also listed on the previous slide.

Credit Agricole arranged the third largest amount of green bonds at \$4.2 billion. Its most notable transactions are outlined on the previous slide.

Arranging 20 green bonds totalling \$3.8 billion, HSBC takes fourth place. Notable deals included Bank of China's \$3 billion July issuance, the \$2 billion Grupo Aeroportuario de la Ciudad de México green bond and the \$1.75 billion issuance from State of North Rhine-Westphalia. HSBC also helped arrange the world's first sovereign bond in December with the \$792 million issuance from the government of Poland.

In fifth position is SEB, arranging 21 bond issuances worth \$2.8 billion including the \$1 billion green bond from Nederlandse Waterschapsbank and the Nordic Investment Bank's \$729 million issuance midway through 2016.

Bank of China comes in sixth place, arranging 10 deals worth \$2.8 billion. Its largest green bond was the \$4.4 billion issuance from the Bank of Communications followed by its own \$3 billion issuance. It also helped arrange three green bonds totalling \$7.2 billion for Industrial Bank.

Green Bonds – Legal Advisers

Top 10 Legal Advisers by Number of Deals

Rank	Legal Adviser	Number of Deals	Deal Credit (\$ million)
1	Orrick, Herrington & Sutcliffe	10	1,755
2	Nixon Peabody	6	1,913
3	Norton Rose Fulbright	6	670
4	Hawkins Delafield & Wood	5	1,868
5	Linklaters	4	4,050
6	Ice Miller	4	845
7	McCarter & English	4	816
8	King & Wood Mallesons	3	7,443
9	Cleary Gottlieb Steen & Hamilton	3	3,800
10	Locke Lord Edwards	3	997

Orrick, Herrington & Sutcliffe was the most active adviser to green bond transactions in 2016, advising on 10 green bonds worth \$1.7 billion. It advised solely on green bonds in the US, mainly in the government sector. The firm's most notable transactions included a \$400 million issuance from Central Puget Sound Regional Transit Authority, a \$313 million issuance from the Maryland Economic Development Corporation and two bonds worth \$500 million from the San Francisco Public Utilities Commission.

Coming in second place is Nixon Peabody and Norton Rose Fulbright, advising on six deals totalling \$1.8 billion and \$669 million respectively. Nixon Peabody advised the New York Metropolitan Transportation Authority on two green bonds worth \$1.3 billion as well as the California Infrastructure and Economic Development Bank's \$410 million issuance. Norton Rose Fulbright's largest transactions comprised a \$259 million green bond from the San Francisco Public Utilities and a \$133 million bond from the New York State Environment Facilities.

Hawkins Delafield & Wood takes third place, advising on five deals totalling \$1.8 billion. Notably, the law firm advised on both of the Metropolitan Transportation Authority issuances as well as the California Infrastructure and Economic Development Bank green bond.

Linklaters, Ice Miller and McCarter & English tie for fourth place, having advised on four deals each in 2016.

Green Bonds – Legal Advisers

Top 10 Legal Advisers by Deal Credit

Rank	Legal Adviser	Number of Deals	Deal Credit (\$ million)
1	King & Wood Mallesons	3	7,443
2	Linklaters	4	4,050
3	Clifford Chance	2	3,989
4	Cleary Gottlieb Steen & Hamilton	3	3,800
5	Sullivan & Cromwell	2	3,000
6	Simpson Thacher & Bartlett	2	3,000
7	Allen & Overy	2	2,250
8	Jones Day	1	2,000
9	Paul Hastings	1	2,000
10	Nixon Peabody	6	1,913

King & Wood Mallesons was the most active legal adviser to green bonds by deal credit in 2016, advising on three deals totalling \$7.4 billion. The three transactions comprised a \$4.4 billion issuance from the Bank of Communications, a \$2.8 billion issuance from Industrial Bank and \$143 million bond from Guangdong Huaxing Bank.

Linklaters takes second place, advising on four green bonds worth \$4 billion. The most notable issuance was Bank of China's \$3 billion issuance in July. The firm also advised on green bonds in Brazil, Italy and Turkey.

Coming in third is Clifford Chance, having advised on two green bonds totalling \$3.9 billion. The firm advised on the aforementioned Bank of China issuance as well as a \$989 French green bond from the Société Nationale des Chemins.

Cleary Gottlieb Steen & Hamilton was the fourth most active legal adviser in 2016, acting as adviser on three green bonds worth \$3.8 billion. Like many of the firms, it advised on the \$2 billion Grupo Aeroportuario de la Ciudad de México green bond. It also acted as adviser for the Asian Development Bank's \$1.3 billion issuance and Brazilian pulp company Suzano Papel e Celulose's \$500 million green bond.

Sullivan & Cromwell and Simpson Thacher & Bartlett take fifth spot, both advising on \$3 billion worth of green bonds. The former advised on two \$1.5 billion issuances, one from the European Investment Bank and the other from KfW Bankengruppe. Simpson Thacher & Bartlett also advised on the KfW issuance, and Apple's \$1.5 billion issuance in February.

Public Markets – Bookrunners

Top 10 Bookrunners by Deal Credit

Rank	Bookrunner	Number of Deals	Deal Credit (\$ million)
1	Goldman Sachs	4	2,332
2	Deutsche Bank	5	1,644
3	Morgan Stanley	7	1,168
4	JP Morgan	6	1,079
5	UBS	4	1,034
6	Citigroup	5	876
7	China International Capital Corporatio	3	829
8	CITIC Securities	2	509
9	Guosen Securities	2	503
10	Bank of America	4	452

Top 10 Bookrunners by Number of Deals

Rank	Bookrunner	Number of Deals	Deal Credit (\$ million)
1	Morgan Stanley	7	1,168
2	JP Morgan	6	1,079
3	Deutsche Bank	5	1,644
4	RBC Capital Markets	5	422
5	Citigroup	5	876
6	Goldman Sachs	4	2,332
7	Bank of America	4	452
8	UBS	4	1,034
9	Roth Capital Partners	3	11
10	China International Capital Corporation	3	829

Goldman Sachs was the most active bookrunner on clean energy public offerings by deal credit in 2016, working on four deals totalling \$2.3 billion. Notable deals included innogy's \$2.2 billion IPO and BYD's \$2.1 billion secondary offering.

Deutsche Bank ranks second by deal credit and third by number of deals, working on five offerings worth \$1.6 billion in 2016. They include the innogy IPO (\$2.2 billion) and IPO's for Advanced Disposal Services (\$347 million) and Datang Environment Industry Group (\$328 million).

Morgan Stanley ranks third by deal credit and top by number of deals, acting as bookrunner on seven offerings totalling \$1.1 billion. It worked on the IPO's of DONG Energy (\$3 billion), Senvion (\$330 million) and TPI Composites (\$69 million). It also worked on four secondaries from the likes of Tesla (\$1.4 billion), NextEra Energy Partners (two transactions worth \$593 million) and Pattern Energy Group (\$239 million).

JP Morgan comes in fourth place by deal credit and second by number of deals, working on six offerings worth \$1.07 billion. The firm also acted as bookrunner on the DONG and Senvion IPO's, as well as that of Philips Lighting (\$995 million) and Biffa (\$321 million). In addition, it worked on the secondary offerings of FuelCell Energy (\$6 million) and Foresight Solar Fund (\$39 million).

In terms of number of deals, Deutsche Bank, RBC Capital Markets and Citigroup come in third place, each acting as bookrunner on five offerings in 2016.

Public Markets – Legal Advisers

Top 10 Legal Advisers by Number of Deals

Rank	Legal Adviser	Number of Deals	Deal Credit (\$ million)
1	Latham & Watkins	4	3,556
2	Davis Polk & Wardwell	2	3,242
3	Hunton & Williams	2	593
4	Morgan Lewis & Bockius	2	593
5	Grandall Law Firm	2	443
6	Tian Yuan Law Firm	1	2,165
7	Simpson Thacher & Bartlett	1	1,400
8	Wilson Sonsini Goodrich & Rosati	1	1,400
9	Shearman & Sterling	1	347
10	Allen & Overy	1	330

Latham and Watkins was the most active legal adviser on clean energy public market deals in 2016, by both the number of deals (four) and deal credit (\$3.5 billion). The firm advised on DONG Energy's \$3 billion IPO as well as IPO's of Advanced Disposal Services (\$347 million) and Azure Power India (\$40 million) and the secondary of United Photovoltaics Group (\$166 million).

Four firms tied for second place, all advising on two deals in 2016. These comprised Davis Polk & Wardwell (\$3.2 billion), Hunton & Williams (\$593 million), Morgan Lewis & Bockius (\$593 million) and Grandall (\$443 million). Davis Polk & Wardwell advised on the DONG IPO and Pattern Energy's \$239 million secondary offering, Hunton & Williams advised on both NextEra Energy Partners' secondary offerings and Grandall advised on two Chinese offerings – Hexing Electrical's IPO (\$325 million) and Guangzhou Hongli Opto-Electronic's secondary offering (\$118 million).

Five firms – Tian Yuan, Simpson Thacher & Bartlett, Wilson Sonsini Goodrich & Rosati, Shearman & Sterling and Allen & Overy – advised on one clean energy offering in 2016. Of these, the most notable transactions were the \$2.1 billion BYD secondary (Tian Yuan) and the \$1.4 billion secondary of Tesla (Simpson Thacher & Bartlett and Wilson Sonsini Goodrich & Rosati).

Methodology



The analysis is based on data extracted from the Clean Energy Pipeline online platform: www.cleanenergypipeline.com

The league tables rank the most active investors, law firms, financial advisers and project debt finance arrangers in the global clean energy sector in 2016. Rankings are based on deals tracked by Clean Energy Pipeline's deal data team.

Qualifying transactions must be classified within at least one of the following sub-sectors: advanced materials & technologies; biofuels; biomass; clean coal; energy efficiency; environmental services & remediation; geothermal; green transportation; hydro; hydrogen generation; marine; microgeneration; recycling & waste; solar; sustainable agriculture; water & wastewater treatment; and wind.

Number of deals ranking: For investor league tables, this is defined as the number of individual companies invested in (not individual investments or transactions) during the period outlined above. For adviser league tables, this is defined as the number of individual transactions in which an adviser has been involved.

Where more than one adviser or investor has been involved in the same number of transactions, the higher ranking is given to the adviser or investor associated with the highest aggregate deal credit.

Deal credit ranking: The deal value accredited to an investor, a bookrunner or an arranger is calculated for each transaction by dividing

the total value of a transaction by the number of investors, bookrunners or arrangers participating in the deal. Financing rounds of an undisclosed size are assigned a deal value of zero. For adviser league tables, deal credit is defined as the total value of individual transactions in which an adviser has been involved.

As our online platform is updated in real time, league table rankings may differ from the time of this release and the data found in our online platform at a later date. Certain confidential deals are also submitted to Clean Energy Pipeline for the purposes of calculating league tables. These deals can not be found on the Clean Energy Pipeline platform.

Clean Energy Pipeline endeavours to guarantee the accuracy of the deal information used to compile the league tables. At the end of each quarter, organisations are invited to email us a quarterly deal summary in any format to ensure that all relevant deals are reflected in the Clean Energy Pipeline league tables. Submissions should be emailed to Thai Tran at thai.tran@cleanenergypipeline.com.

Clean Energy Pipeline reserves the rights to decline inclusion of deals that it deems fall outside its definitions or methodology.



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