



BUREAU VAN DIJK

M&A Review

Cleantech

June 2017



The following report details mergers and acquisitions activity in the cleantech sector in June 2017 using data from the Zephyr database.

It focuses on global deals activity by target company within the cleantech sector.

Click [here](#) to access the raw data in an Excel spreadsheet.

Bureau van Dijk recently expanded its definition of the “Cleantech” industry, which has resulted in increased deal volumes and aggregated deal values.

PE, VC and DC value continues to fall in June

There were 21 private equity, venture capital and development capital (PE, VC and DC) deals worth a combined USD 368 million targeting cleantech companies in June, compared to 18 deals totalling USD 1,662 million in May.

The value of PE, VC and DC activity fell for the third consecutive month in June and reversed gains made over the last 12 months, which resulted in a high of USD 8,434 million in March (April: USD 4,468 million; May: USD 1,662 million).

Investment was also down year-on-year, though the decline from USD 5,545 million appears particularly stark as June 2016 represented the second-highest result of the 12 months under review.

Volume rose month-on-month and year-on-year from 18 deals and 19 deals, respectively, as dealmaking was supported by an increase in investment in companies based in the US, Italy, Japan and France, among others.

Private equity, venture capital and development capital deals by volume and value

Announced date	No of deals	Total deal value (mil USD)
Jun-17	21	368
May-17	18	1,662
Apr-17	16	4,468
Mar-17	23	8,434
Feb-17	25	322
Jan-17	16	1,611
Dec-16	27	280
Nov-16	20	1,658
Oct-16	31	949
Sep-16	23	291
Aug-16	37	1,898
Jul-16	22	172
Jun-16	19	5,545



BUREAU VAN DIJK

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orbis

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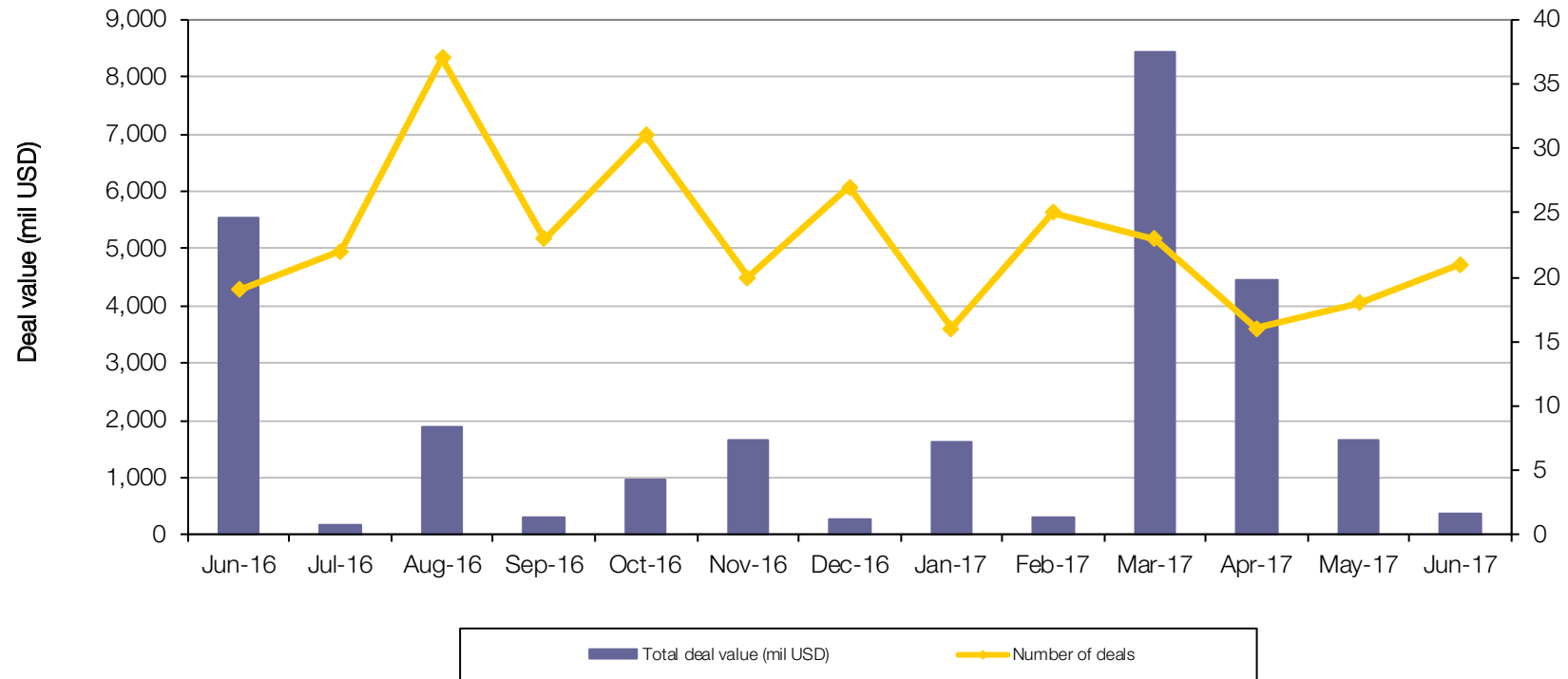
m&a research catalyst



Combining deal and company data



Private equity, venture capital and development capital deals by volume and value





Plenium backs month's largest deal by value

There were only nine PE, VC and DC deals with known values in June and only one of these was worth more than USD 300 million. This one high-value investment was the institutional buyout of a majority stake in EDF's Fotovoltaico Solar y Energias Renovables Fotosolar by Helia Renovables, which was created by Bankinter and is managed by Plenium Partners Asset Management, for USD 335 million.

This was one of ten institutional buyouts – within the biomass, solar, thermal and wind segments, among others – announced during the four weeks under review and the only one with a known value. Backers of these deals ranged from Macquarie Capital and F2i Fondi to Macquarie Infrastructure and Real Assets and Ardian France.

Of the minority stake purchases with known values, Nexamp accounted for the largest after the US solar power company raised USD 15 million, which was double the USD 7 million fetched by Swedish startup Trine via a series A funding round from Gullspang Invest, Andrew Reicher, Lars Thunnell, Chalmers Ventures and Sorosh Tavakoli.

Value stripped away from PE, VC and DC investment in the UK against an increase in Spain

The value of PE, VC and DC investment in Spanish companies soared on the back of the institutional buyout of a majority stake in Fotovoltaico Solar y Energias Renovables Fotosolar and outperformed the USD 22 million-worth of deals targeting the US, which led by volume with 8 deals.

Overall PE, VC and DC value was suppressed by a lack of dealmaking targeting companies in the UK, China and Brazil, among others.

Conversely, the value of PE, VC and DC investment in Sweden and India rose both month-on-month and year-on-year to reach USD 7 million and USD 3 million, respectively.

Meanwhile, dealmaking targeting US companies supported the increase in overall volume in June after rising to 8 deals from 5 in June 2016 and 6 in May 2017, as did activity in Italy, Sweden, Japan, Ireland, Portugal and Norway.



Private equity, venture capital and development capital deals by value

	Deal value (mil USD)	Deal type	Target	Target business description	Target country	General Partner/Fund Manager	Deal status
1.	335	IBO majority stake	Fotovoltaico Solar y Energias Renovables Fotosolar SL	Solar electric energy infrastructures construction services, Solar electric energy production services	ES	Plenium Partners Asset Management SGEIC SA	Completed
2.	15	Minority stake	Nexamp Inc.	Solar power producer	US		Completed
3.	7	Minority stake	Trine AB	Online solar project investment platform operator	SE	Gullspang Invest AB; Chalmers Ventures AB	Completed
4.	6	Minority stake	Arcadia Power Inc.	Energy consultancy services provider, Online clean energy management Software-as-a-Service (SaaS) provider	US	BoxGroup; Wonder Ventures; Energy Impact Partners LP	Completed
5.	3	Minority stake	Generale du Solaire SAS	Solar power production and operation services	FR		Completed
6.	3	Minority stake	Mera Gao Micro Grid Power Pvt Ltd	Solar-powered micro-grid provider	IN	Rassembleurs d'Energies SAS; Insitor Management; The Electrification Financing Initiative	Completed
7.	1	Minority stake	Geostellar Inc.	Solar panel analytics online platform operator	US		Completed
8.	1	Minority stake	Cerahelix Inc.	DNA-based water re-use and recycling ceramic nanofiltration membranes developer	US		Completed
9.	0	Minority stake	Sally R AB	Indoor air quality ventilation and climate products manufacturer	SE	Almi Invest AB	Completed
10.	n.a.	IBO 100%	RES Japan KK	Biomass energy generation services, Geothermal energy generation services, Other energy generation services, Renewable energy related consulting services, Solar energy generation services, Wind energy generation services	JP	Macquarie Capital	Completed
11.	n.a.	IBO 100%	Veronagest SpA's 7 Sicily and Calabria based wind parks	Solar power generation services, Wind power generation services	IT	F2i Fondi Italiani per le infrastrutture SGR SpA	Completed
12.	n.a.	IBO 100%	Valicor Environmental Services LLC	Non-hazardous wastewater treatment services	US	Wind Point Advisors LLC	Completed



Private equity, venture capital and development capital deals by value

	Deal value (mil USD)	Deal type	Target	Target business description	Target country	General Partner/Fund Manager	Deal status
13.	n.a.	IBO 100%	ShoreMaster LLC	Boat lifts and winches manufacturer, Boat lifts and winches wholesaler, Boat rakes manufacturer, Boat rakes wholesaler, Canopies and canopy covers manufacturer, Canopies and canopy covers wholesaler, Solar panels manufacturer, Solar panels wholesaler, Swim rafts, inflatable water toys and other water accessories manufacturer, Swim rafts, inflatable water toys and other water accessories wholesaler, Waterfront equipment manufacturer, Waterfront equipment wholesaler	US	Invision Capital Management LLC	Completed
14.	n.a.	Minority stake	Loci Controls Inc.	Automated landfill gas collection and monitoring equipment manufacturer, Cloud-based gas collection and monitoring software developer	US	Turnbridge Capital LLC	Completed
15.	n.a.	IBO 100%	Meltemi Energia Srl	Wind energy provider	IT	Macquarie Infrastructure and Real Assets (Europe) Ltd	Completed
16.	n.a.	IBO 90%	Central de Biomassa do Fundao Lda; Central de Biomassa Viseu Lda	Biomass electric power generation services; Biomass electric power generation services	PT; PT	Marguerite Adviser SA	Completed
17.	n.a.	Minority stake	Taylor Hopkinson Ltd	Clean energy and clean technology recruitment services, Renewable energy and clean technology human resources consultancy services	GB	SEA Equity Ltd	Completed
18.	n.a.	IBO 80%	Tolve Windfarms Holding Srl	Wind electric power generation service	IT	Ardian France SA	Completed
19.	n.a.	Minority stake	OxyMem Ltd	Wastewater treatment oxygen delivery system manufacturer	IE	Saudi Aramco Energy Ventures LLC	Completed
20.	n.a.	IBO 99%	Biomass Fuel Co., Ltd	Thermal and biomass energy generation fuel supplier	JP	Daiwa PI Partners Co., Ltd	Completed
21.	n.a.	IBO 100%	MBA Polymers Inc.	Plastic recycling services, Recycled plastic products manufacturer	US	Elephant Equity GmbH	Completed



Target countries by volume - private equity, venture capital and development capital deals

Target country	Jun-16	May-17	Jun-17
US	5	6	8
Italy	0	0	3
Sweden	0	1	2
Japan	0	0	2
India	1	1	1
UK	2	3	1
France	2	0	1
Ireland	0	0	1
Portugal	0	0	1
Spain	1	1	1

Target countries by value - private equity, venture capital and development capital deals

Target country	Jun-16 (mil USD)	May-17 (mil USD)	Jun-17 (mil USD)
Spain	25	1	334
US	5,207	33	22
Sweden	0	0	7
France	4	0	3
India	0	0	3



Private equity, venture capital and development capital investors

	Company name	Number of deals	Number with consideration	Total deal value (mil USD)	Average deal value (mil USD)
1	Plenium Partners Asset Management SGEIC SA	1	1	334	334
2	Chalmers Ventures AB	1	1	7	7
3	Gullspang Invest AB	1	1	7	7
4	Wonder Ventures	1	1	6	6
5	Energy Impact Partners LP	1	1	6	6
6	BoxGroup	1	1	6	6
7	Insitor Management	1	1	3	3
8	The Electrification Financing Initiative	1	1	3	3
9	Rassembleurs d'Energies SAS	1	1	3	3
10	Almi Invest AB	1	1	0	0
11	Wind Point Advisors LLC	1	0	n.a.	n.a.
12	Benchmark Capital Holdings Company LLC	1	0	n.a.	n.a.
13	Ambienta SGR SpA	1	0	n.a.	n.a.
14	Saudi Aramco Energy Ventures LLC	1	0	n.a.	n.a.
15	Marguerite Adviser SA	1	0	n.a.	n.a.
16	Turnbridge Capital LLC	1	0	n.a.	n.a.
17	Macquarie Capital	1	0	n.a.	n.a.
18	SEA Equity Ltd	1	0	n.a.	n.a.
19	Ardian France SA	1	0	n.a.	n.a.
20	Honeywell Capital Management LLC	1	0	n.a.	n.a.
21	Sustainable Development Investments	1	0	n.a.	n.a.
22	Crossroads Capital Inc.	1	0	n.a.	n.a.
23	Balderton Capital (UK) LLP	1	0	n.a.	n.a.
24	Macquarie Infrastructure and Real Assets (Europe) Ltd	1	0	n.a.	n.a.
25	Doughty Hanson & Co Managers Ltd	1	0	n.a.	n.a.



Lack of high-value dealmaking suppresses M&A value in June

There were 216 mergers and acquisitions (M&A) worth a combined USD 7,070 million targeting companies operating in the cleantech sector in June, representing a decline both month-on-month and year-on-year from 243 deals totalling USD 12,268 million in May and 235 deals worth USD 23,267 million in June 2016.

Value fell for the third consecutive month to a new 12-month low in June, a result which was in fact the lowest recorded since August 2015 (USD 6,575 million), as M&A was suppressed by a lack of dealmaking worth more than USD 5,000 million in June.

The largest M&A deal of the month involved Hyundai Robotics increasing its minority stake in Hyundai Heavy Industries to 28 per cent for USD 1,270 million, while the second-largest featured Shanghai Electric Power acquiring 66 per cent of K-Electric for USD 1,219 million. These were the only two cleantech deals worth more than USD 1,000 million in June.

The top 20 M&A deals by value featured companies based in countries ranging from Spain and Bermuda to Israel, though it was dominated by Chinese targets, which were also the most prolific global dealmakers over the four weeks with a total of 66 deals, followed by Germany (20), the US (16) and South Korea (12).

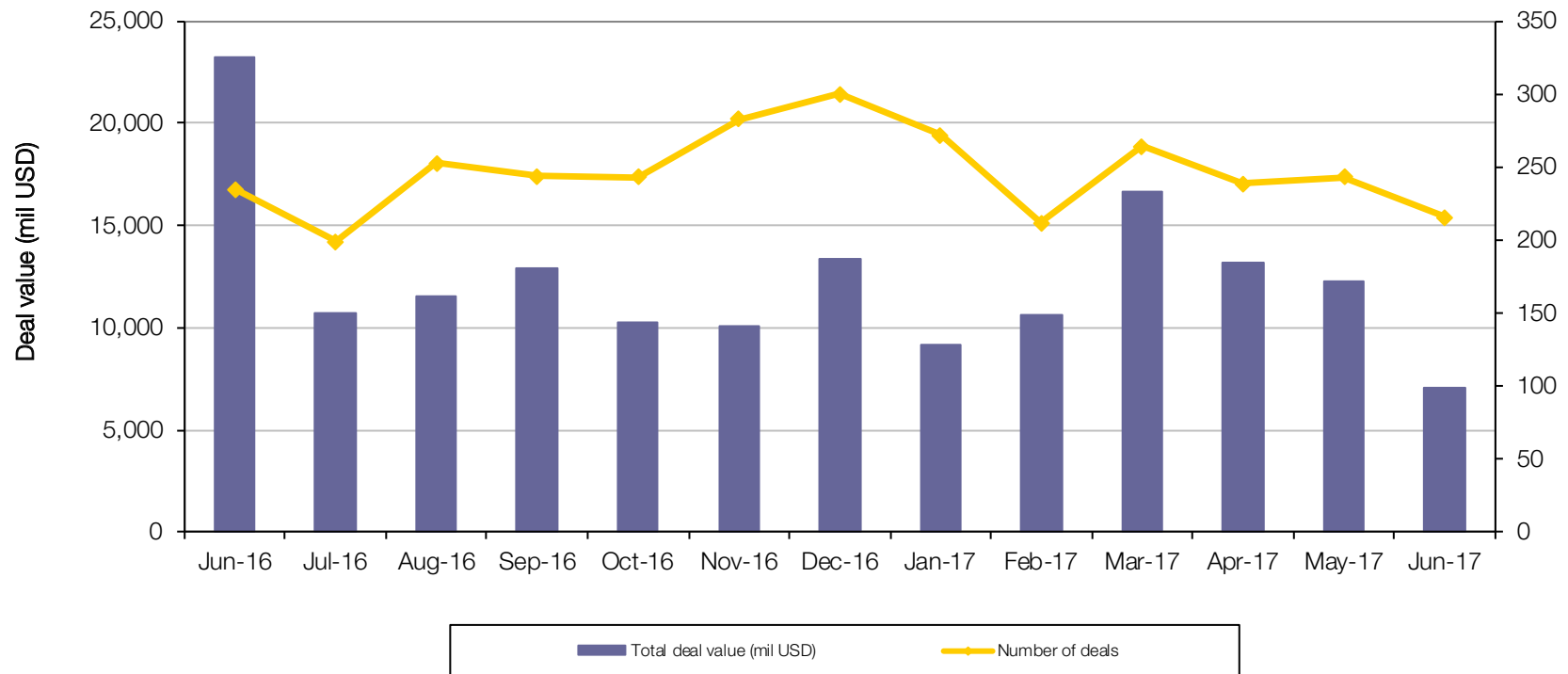
Despite featuring in the largest deals by value of the month, South Korea and Pakistan were overtaken by China, which was targeted in deals worth USD 2,546 million over the four weeks.

Deals by volume and value

Announced date	No of deals	Total deal value (mil USD)
Jun-17	216	7,070
May-17	243	12,268
Apr-17	239	13,200
Mar-17	264	16,648
Feb-17	212	10,642
Jan-17	272	9,146
Dec-16	300	13,356
Nov-16	283	10,119
Oct-16	243	10,263
Sep-16	244	12,957
Aug-16	253	11,541
Jul-16	199	10,748
Jun-16	235	23,267



Deals by volume and value





Top 20 deals by value

	Deal value (mil USD)	Deal type	Target	Target business description	Target country	Acquiror	Deal status
1.	1,270	Minority stake 13% to 28%	Hyundai Heavy Industries Co., Ltd	Electronic components manufacturer, Green energy provider, Iron and steel forging services, Medical robot manufacturer, Offshore and engineering services, Ship building services, Construction equipment manufacturer, Electric power distribution and transformer manufacturer, Industrial robot manufacturer	KR	Hyundai Robotics Co., Ltd	Announced
2.	1,219	Acquisition 66%	K-Electric Ltd	Coal-fired power generation services, Electricity distribution services, Electricity transmission services, Solar power generation services, Wind power generation services	PK	Shanghai Electric Power Co., Ltd	Announced
3.	516	Capital increase acquired 17%, to hold 67%	Beijing Jingneng Clean Energy Co., Ltd	Hydropower generator holding company, Wind power operator holding company	CN	Beijing Energy Investment Holding (Hong Kong) Co., Ltd; Beijing Energy Group Co., Ltd	Pending
4.	335	IBO majority stake	Fotovoltaico Solar y Energias Renovables Fotosolar SL	Solar electric energy infrastructures construction services, Solar electric energy production services	ES	Helia Renovables FCR	Completed
5.	280	Capital Increase	Inner Mongolia Mengdian Huaneng Thermal Power Corporation Ltd	Geothermal electric power generation services, Steam supply services	CN		Pending
6.	270	Capital Increase 5%	Brookfield Renewable Partners LP	Hydroelectric power services, Renewable energy services provider	BM		Completed
7.	206	Minority stake 8% to 20%	Eging Photovoltaic Technology Co., Ltd	Solar cell manufacturer	CN	Shenzhen Qinchengda Investment Management Co., Ltd	Announced
8.	199	Joint venture 100%	Wuxi Central Application Materials Co., Ltd	Solar wafers and related products manufacturer, Solar wafers and related technology development services	CN	Tianjin Zhonghuan Semiconductor Co., Ltd; Zhonghuan Hong Kong Holding Co., Ltd; Yixing Huanjian Equity Investment Enterprise (LP)	Announced
9.	178	Acquisition 50%	IDE Technologies Ltd	Desalination technologies developer, Desalination technologies installation services	IL	Cia Insurance Enterprises Holdings Ltd; Mr Avshalom Felber; Teachers and Kindergarten Teachers Advanced Study Fund	Announced
10.	176	Capital Increase	Sunvim Group Co., Ltd	Household textile manufacturer, Property developer, Solar cell component manufacturer, Textile products trading services	CN		Pending



Top 20 deals by value (cont'd)

	Deal value (mil USD)	Deal type	Target	Target business description	Target country	Acquiror	Deal status
11.	174	Acquisition 100%	Shizuishan Rongmao Metal Material Recycling Co., Ltd; among other domestic assets	Metal products recycling services	CN	Ningxia Zhongneng Hengli Steel Wire Co., Ltd	Pending
12.	168	Minority stake 2%	Hyundai Heavy Industries Co., Ltd	Electronic components manufacturer, Green energy provider, Iron and steel forging services, Medical robot manufacturer, Offshore and engineering services, Ship building services, Construction equipment manufacturer, Electric power distribution and transformer manufacturer, Industrial robot manufacturer	KR		Completed
13.	154	Capital Increase 3%	Brookfield Renewable Partners LP	Hydroelectric power services, Renewable energy services provider	BM	Brookfield Asset Management Inc.	Completed
14.	126	Minority stake 13%	Gunkul Engineering PCL	Electrical equipment manufacturer holding company, Electricity distributor holding company, Engineering services holding company, Solar power generation services holding company, Wind energy producer holding company	TH		Completed
15.	125	Acquisition 10% to 80%	Beijing Landsky Environmental Technology Co., Ltd	City lighting energy-saving and related technology development services	CN	Beijing Originwater Technology Co., Ltd	Announced
16.	123	Capital Increase	Beijing GeoEnviron Engineering & Technology Inc.	Solid waste treatment services	CN		Announced
17.	119	Acquisition 100%	Suzhou Shengcheng Solar Equipment Co., Ltd	Photovoltaic equipment manufacturer, Solar cell manufacturer	CN	J.S. Corrugating Machinery Co., Ltd	Pending
18.	117	Joint venture 100%	SPIC Muping Energy Development Co., Ltd	Electricity distribution services, Onshore and offshore wind power generation services, Photovoltaic power generation services, Power structures construction services	CN	China Power (Yantai) Energy Investment Ltd; SPIC Shandong Energy Development Co., Ltd; Shandong Guorui New Energy Co., Ltd	Announced
19.	91	Minority stake 8%	Obrascon Huarte Lain SA	Construction and civil engineering services holding company, Highway construction services holding company, Highway toll concessions services holding company, Hydraulic infrastructures construction services holding company, Nonresidential buildings construction services holding company, Oil and gas infrastructures construction services holding company, Renewable energy plants and infrastructures construction services holding company, Residential buildings construction services holding company	ES	Grupo Villar Mir SA	Completed
20.	88	Capital Increase 23%	Shanghai Tongji Science & Technology Industrial Co., Ltd	Architectural services, Building and road construction services, Hotel operator, Property management services, Real estate developer, Technology park operator, Waste water treatment services	CN		Pending



Target countries by volume

Target country	Jun-16	May-17	Jun-17
China	64	61	66
Germany	16	22	20
US	23	19	16
South Korea	8	10	12
UK	18	6	9
Japan	7	14	8
France	7	6	8
Spain	7	17	8
Canada	10	7	6
India	7	4	6
Australia	10	9	6
Italy	6	7	5
Poland	6	4	5
Norway	1	2	4
Sweden	2	5	4
Vietnam	7	2	4
Cayman Islands	2	3	3
Singapore	2	7	3

Target countries by value

Target country	Jun-16 (mil USD)	May-17 (mil USD)	Jun-17 (mil USD)
China	2,887	2,856	2,546
South Korea	199	426	1,528
Pakistan	0	0	1,219
Spain	7,627	441	505
Bermuda	689	28	424
Israel	0	0	189
Thailand	14	0	126
Germany	1,944	242	125
US	5,980	957	98
UK	300	995	83
Japan	63	82	35
Italy	475	84	34
Hong Kong	22	0	32
Vietnam	48	4	29
Norway	11	10	28
Cayman Islands	33	73	15
Sweden	1	147	11
Taiwan	0	87	10
France	61	3,238	10
India	1,459	65	6



IPOs by volume and value

Announced date	No of deals	Total deal value (mil USD)
Jun-17	4	55
May-17	10	1,952
Apr-17	9	344
Mar-17	2	0
Feb-17	3	37
Jan-17	5	49
Dec-16	3	53
Nov-16	2	0
Oct-16	1	66
Sep-16	6	709
Aug-16	4	216
Jul-16	3	37
Jun-16	9	1,796



June IPOs

	Deal value (mil USD)	Deal type	Target	Target business description	Target country	Announced date	Deal status
1.	52	Planned IPO 25% on Shenzhen Stock Exchange ChiNext Board	Beijing Yupont Electric Power Technology Co., Ltd	Intelligent power meter manufacturer, Power information and power grid information management software developer	CN	02/06/2017	Pending
2.	3	Planned IPO 53% on Australian Securities Exchange	Spectur Ltd	Solar security camera manufacturer, Solar security camera software developer	AU	19/06/2017	Announced
3.	n.a.	IPO on National Equities Exchange and Quotations	Changsha Hanyang Environmental Protection Technology Co., Ltd	Medical and hazardous waste management and utilization services	CN	21/06/2017	Completed
4.	n.a.	IPO on National Equities Exchange and Quotations	JiangSu Huaxu Environment Co., Ltd	Hazardous waste treatment services	CN	29/06/2017	Completed

Notes to editors

The search criteria uses a key word system based on the targets' business description

The key words and phrases are: "alternative energy" OR "alternative power" OR "biomass" OR "bioenergy" OR "bio energy" OR "bio-energy" OR "biofuel" OR "fuel cell" OR "hydrogen" OR "photovoltaic" OR "renewable energy" OR "reuseable energy" OR "re-usable energy" OR "solar" OR "waste to energy" OR "wind power" OR "wind farm" OR "wave power" OR "geothermal" OR "geothermal" OR "hydropower" OR "hydro-power" OR "bio-diesel" OR "biodiesel" OR "energy resource management" OR "electric vehicle" OR "water purification" OR "intelligent power" OR "air quality" OR "energy efficiency" OR "thin film energy" OR "thin-film energy" OR "energy efficiency software" OR "energy storage" OR "battery power" OR "water treatment" OR "waste management" OR "biogas" OR "anaerobic digestion" OR "wastewater" OR "green construction" OR "green buildings" OR "smart meter" OR "smart grid" OR "energy monitoring" OR "marine energy" OR "solar thermal" OR "algae" OR "green energy" OR "cleantech" OR "clean tech" OR "environmental technology" OR "greentech" OR "charging station" OR "green infrastructure" OR "clean energy" OR "tidal power" OR "tidal energy" OR "biodegradable" OR "alternative fuel" OR "landfill" OR "wind electric power generation" OR "wind power generation" OR "wind turbine" OR "desalination" OR "membrane bioreactor" OR "energy storage" OR "energy saving" OR "water resources surveying" OR "water resources mapping" OR "photovoltaic power" OR "hydroelectric power" OR "waste electric power generation" OR "sewage treatment" OR "green industry" OR "electric vehicle maintenance" OR "water treatment" OR "environmental protection technology" OR "waste treatment" OR "solar power project construction" OR "solar power" OR "solar electric power" OR "Water quality analyser" OR "Water quality analyzer" OR "Air pollution control equipment" OR "Air pollution control technology" OR "solar energy generation" OR "waste to energy" OR "waste-to-energy" OR "recycling" OR "hydro electric power" OR "hydro-electric power" OR "wind energy" OR "solar photovoltaic energy generation" OR "wind park"

Activity is based on the activity of the target company

Deal status is announced, completed, pending or unconditional