



**BUREAU VAN DIJK**

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# **Cleantech M&A Review March 2018**

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### The following report details mergers and acquisitions activity in the cleantech sector in March 2018 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.

### PE, VC and DC cleantech value slipped against increase in volume month-on-month

The value of private equity, venture capital and development capital (PE, VC and DC) investment in cleantech companies in March failed to sustain the significant growth recorded in February 2018 that had resulted in USD 2,075 million-worth of deals being announced over the four weeks, which was the highest recorded since August 2017.

In all, there were 22 PE, VC and DC deals announced in March with a known aggregate value of USD 1,311 million, representing a decline of more than a third month-on-month. Value was stripped away year-on-year as PE, VC and DC investment slumped from the second-highest recorded for the 12 months (March 2017: USD 8,440 million).

Conversely, volume rose month-on-month to 22 deals from 17, though dealmaking was down year-on-year from 26 deals.

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

Announced date	No of deals	Total deal value (mil USD)
Mar-18	22	1,311
Feb-18	17	2,075
Jan-18	24	432
Dec-17	22	1,865
Nov-17	24	950
Oct-17	21	297
Sep-17	21	619
Aug-17	26	25,149
Jul-17	19	2,229
Jun-17	26	373
May-17	18	1,835
Apr-17	17	2,743
Mar-17	26	8,440



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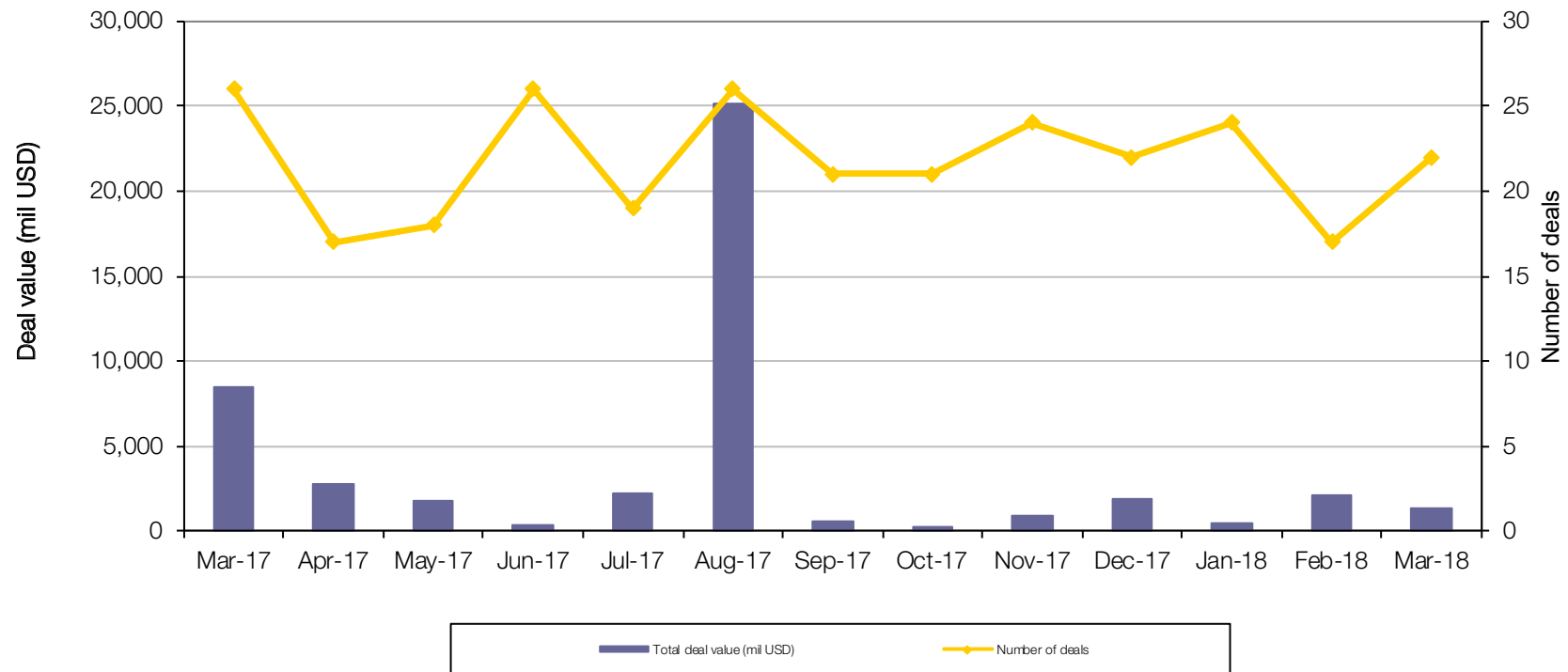


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### Private equity, venture capital and development capital deals by volume and value



### 3i Investments took part in two PE, VC and DC cleantech deals

There were only four deals worth USD 100 million or more in March and, together, they accounted for almost all of the USD 1,311 million-worth of deals announced over the four weeks. 3i Investments backed the largest by value, namely an institutional buyout of Attero Holding, a Dutch waster processor that also converts residual waste into energy and raw materials, for USD 495 million.

Beijing Chehejia Information Technology accounted for the second-biggest PE, VC and DC deal by value after the smart electric vehicle manufacturer secured USD 474 million in a series B funding round led by Matrix Management and Beijing Shougang Funds and which included participation from BlueRun Ventures, Future Capital, Beijing Source Code Capital Investment and Funcity Asset Management.

3i Investments also backed the next largest deal as it injected USD 173 million of fresh equity into portfolio company Infinis, a UK landfill gas-to-electricity generation services provider.

Bird Rides of the US was the only other company that announced a PE, VC and DC deal worth USD 100 million or more in March; the Californian based online electric vehicle sharing application developer raised USD 100 million in a series B funding round co-led by Valor Equity Partners and Index Venture Management and which included participation from Craft Ventures and Goldcrest Investments.

Investors attracted to cleantech PE, VC and DC dealmaking in March ranged from Brookfield Asset Management, PENG Capital and JA Mitsui Leasing to SUSI Partners, Ardian France and CDC Group.

### PE, VC and DC value was supported by increased investment in the Netherlands, China and Kenya

Western European cleantech companies were the main targets of PE, VC and DC investment in March. However, overall value was supported by a significant increase – both month-on-month and year-on-year – of investment in cleantech companies based in the Far East and Central Asia and Africa, and even the known value of investment in the Middle East rose over the same timeframe (March 2018: USD 2 million; February 2018: USD 0 million; March 2017: USD 0 million).

The Attero and Infinis deals made the Netherlands and the UK the first- and third-largest target countries by value, respectively. Unsurprisingly, given Beijing Chehejia Information Technology's series B round, China was second by value with a known total of USD 474 million (February 2018: USD 0 million; March 2017: USD 21 million), representing 36 per cent of the month's total USD 1,311 million.

Value was stripped away from dealmaking targeting companies in the US month-on-month and year-on-year (March 2018: USD 109 million; February 2018: USD 1,743 million; March 2017: USD 8,404 million). Conversely, investment in cleantech companies based in Kenya, Japan and the UAE was up over the same timeframe at USD 17 million, USD 4 million and USD 2 million, respectively.

### 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.	495	IBO 100%	Attero Holding NV	Energy-from-waste producer holding company, Waste management services provider holding company, Waste treatment services provider holding company	NL	3i Investments plc	Announced
2.	474	Minority stake	Beijing Chehejia Information Technology Co., Ltd	Power battery pack manufacturer, Smart electric vehicle manufacturer	CN	Matrix Management Corporation; Beijing Shougang Funds Co., Ltd; BlueRun Ventures LP; Future Capital; Beijing Source Code Capital Investment Co., Ltd; Funcity Asset Management Co., Ltd	Completed
3.	173	IBO	Infinis Ltd	Landfill gas-to-electricity generation services	GB	3i Investments plc	Announced
4.	100	Minority stake	Bird Rides Inc.	Online electric vehicle sharing application developer	US	Valor Equity Partners LP; Index Venture Management LLP; Goldcrest Investments Group Inc.; Craft Ventures LLC	Completed
5.	36	Minority stake	Alten RE Developments Africa BV	Solar power electricity generation services, Solar power plant development services	NL	Inspired Evolution Investment Management (Pty) Ltd	Announced
6.	17	Minority stake	M-Kopa Kenya Ltd	Solar systems developer	KE	CDC Group plc; Generation Investment Management LLP; LGT Venture Philanthropy Foundation Switzerland	Completed
7.	5	Minority stake	Smarter Sorting	Online data-based consumer chemical waste management machine learning platform operator	US	Ru-Net Technology Partners LLC	Completed
8.	4	Minority stake	Dandelion Energy Inc.	Geothermal power generation services provider	US		Completed
9.	2	Minority stake	Pawame Ltd	Household solar power unit manufacturer	AE		Completed
10.	2	Minority stake	Digital Grid Inc.	Prepaid solar power device leasing services, Prepaid solar power sale services	JP	Macnica Inc.; Fujikura Ltd; Acario Investment One LLC	Announced

### Private equity, venture capital and development capital deals by value (cont)

	Deal value (mil USD)	Deal type	Target	Target business description	Target country	General Partner/Fund Manager	Deal status
11.	2	Minority stake	Eco Style Co., Ltd	Geothermal power generation services, Solar energy installation services, Solar energy related fund management services, Water power generation services	JP	Energy & Environment Investment Inc.	Completed
12.	2	Minority stake	NoWi Energy BV	Battery power module technology developer	NL	Disruptive Technology Ventures BV	Completed
13.	n.a.	Joint venture 100%	Skyline Renewables LLC	Renewable energy platform operator	US	Ardian France SA	Completed
14.	n.a.	IBO 50%	Diamond Transmission Partners BBE (Holdings) Ltd	Wind farm operator holding company	GB	InfraRed Capital Partners Ltd	Pending
15.	n.a.	IBO 100%	Leeward Renewable Energy LLC	Acquisition vehicle, Investment services holding company, Renewable energy production services	US	OMERS Infrastructure Management Inc.	Announced
16.	n.a.	Acquisition 100%	Kirton Engineering Ltd's business operations and certain assets	Water treatment system manufacturer	GB	Oxygen Partners Ltd	Completed
17.	n.a.	Minority stake	All4 LLC	Air quality compliance and permitting services	US	JMH Capital Associates LLC	Completed
18.	n.a.	IBO majority stake	Esdec BV	Solar panels mounting system installation services, Solar panels mounting systems manufacturer	NL	Gilde Buy Out Partners BV	Completed
19.	n.a.	IBO 100%	13.2 MW Cappawhite B wind farm	Wind electric power generation services	IE	SUSI Partners AG	Completed
20.	n.a.	Minority stake	Japan H2 Mobility LLC	Fuel cell vehicle hydrogen supply facility operator	JP	Sumitomo Mitsui Finance and Leasing Co., Ltd; NEC Capital Solutions Ltd; Sompo Japan Nipponkoa Insurance Inc.; Sparx Group Co., Ltd; JA Mitsui Leasing Ltd	Completed
21.	n.a.	Minority stake	FairSense (Beijing) Environmental Technology Co., Ltd	Air quality data processing services, Air quality sensing machinery manufacturer	CN	Ningbo Yushan Investment Management Co., Ltd; PENG Capital	Completed
22.	n.a.	Joint venture 100%	Global Logistics Properties Ltd and Brookfield Asset Management Inc.'s rooftop solar projects operation service JV	Rooftop solar projects operator	CN	Brookfield Asset Management Inc.	Announced

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

Target country	Mar-17	Feb-18	Mar-18
US	11	6	6
Netherlands	0	0	4
Japan	1	0	3
China	4	0	3
UK	1	4	3
UAE	0	0	1
Kenya	0	0	1
Ireland	0	0	1

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

Target country	Mar-17 (mil USD)	Feb-18 (mil USD)	Mar-18 (mil USD)
Netherlands	0	0	532
China	21	0	474
UK	0	267	173
US	8,404	1,743	109
Kenya	0	0	17
Japan	4	0	4
UAE	0	0	2

### 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	3i Investments plc	2	2	667	334
2	Waterland Private Equity Investments BV	1	1	495	495
3	BlueRun Ventures LP	1	1	474	474
4	Future Capital	1	1	474	474
5	Beijing Source Code Capital Investment Co., Ltd	1	1	474	474
6	Matrix Management Corporation	1	1	474	474
7	Funcity Asset Management Co., Ltd	1	1	474	474
8	Beijing Shougang Funds Co., Ltd	1	1	474	474
9	Index Venture Management LLP	1	1	100	100
10	Craft Ventures LLC	1	1	100	100
11	Valor Equity Partners LP	1	1	100	100
12	Goldcrest Investments Group Inc.	1	1	100	100
13	Inspired Evolution Investment Management (Pty) Ltd	1	1	36	36
14	LGT Venture Philanthropy Foundation Switzerland	1	1	17	17
15	Generation Investment Management LLP	1	1	17	17
16	CDC Group plc	1	1	17	17
17	Ru-Net Technology Partners LLC	1	1	5	5
18	Acario Investment One LLC	1	1	2	2
19	Fujikura Ltd	1	1	2	2
20	Macnica Inc.	1	1	2	2
21	Energy & Environment Investment Inc.	1	1	2	2
22	Disruptive Technology Ventures BV	1	1	2	2



### Growth returned to Cleantech M&A following several months of decline

An uptick in mergers and acquisitions (M&A) deals targeting cleantech companies in March reversed several consecutive monthly declines – namely, two by volume and three by value – by advancing to 177 deals worth USD 17,322 million from 156 deals with a known total of USD 8,974 million in February.

Value in March was up marginally from USD 16,998 million in March 2017 at the third-highest recorded in the 12 months under review (November: USD 18,718 million; August: USD 31,057 million). While volume rose 13 per cent over the four weeks, it was down 36 per cent year-on-year from 277 deals and represented one of the lowest of the 12 months after February.

### Australia M&A value boosted by Snowy Hydro USD 4bn+ deal

Value was supported by three cleantech deals that topped USD 1,000 million in March and which, together, accounted for 46 per cent of the month's total.

The largest featured the commonwealth government of Australia acquiring the 87 per cent not already held in the iconic renewable electricity power scheme Snowy Hydro from the governments of Victoria and New South Wales for a total USD 4,838 million.

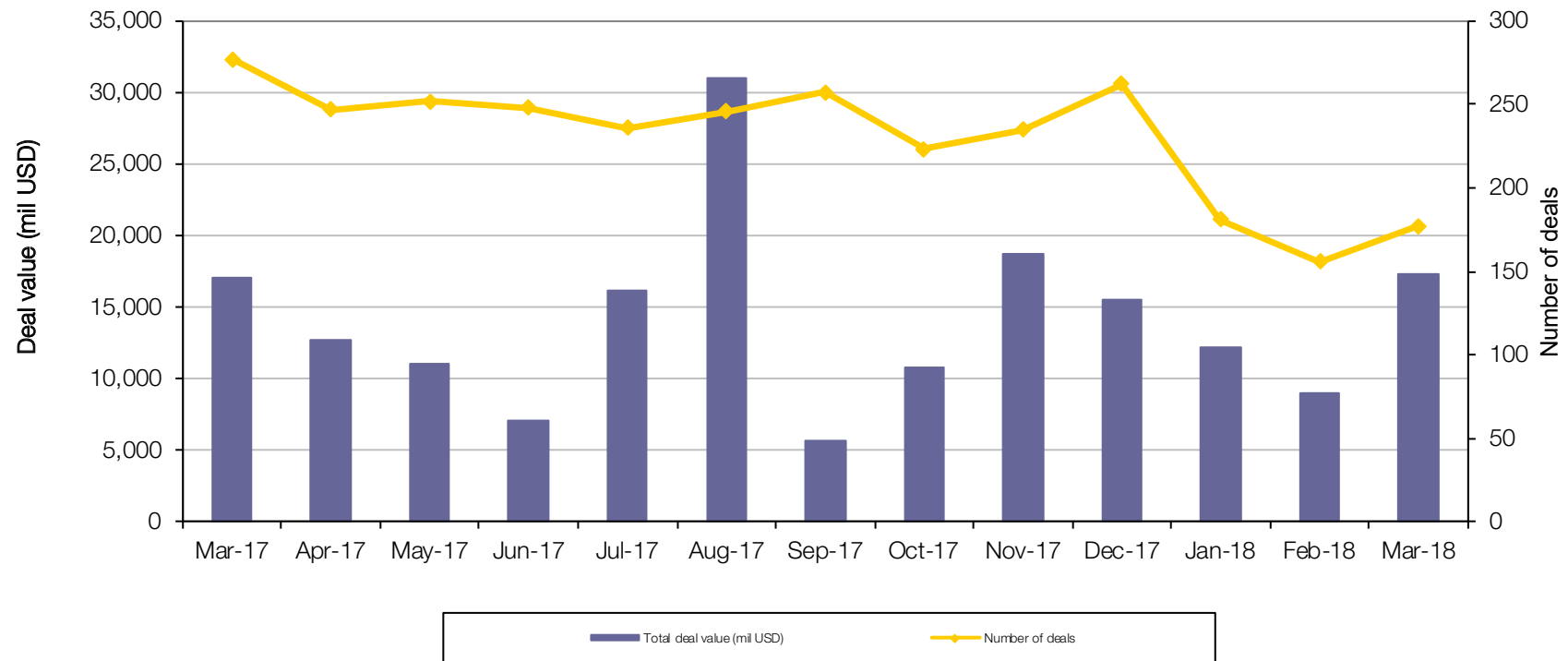
This was more than double the value of the month's second-biggest M&A deal, being RWE's purchase of the renewables business and gas storage business of Innogy, as well as Innogy's stake in KELAG-Karntner Elektrizitats, for USD 1,847 million.

While Australia was the main target country of cleantech M&A by value, China was the main target country by volume after companies based in the People's Republic announced 52 deals worth a total USD 2,654 million over the four weeks, compared to 17 deals by those based in the US or 15 for the UK.

### Deals by volume and value

Announced date	No of deals	Total deal value (mil USD)
Mar-18	177	17,322
Feb-18	156	8,974
Jan-18	181	12,250
Dec-17	262	15,532
Nov-17	235	18,718
Oct-17	223	10,765
Sep-17	257	5,703
Aug-17	246	31,057
Jul-17	236	16,130
Jun-17	248	7,079
May-17	252	11,083
Apr-17	247	12,750
Mar-17	277	16,998

### 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.	4,838	Acquisition 13% to 100%	Snowy Hydro Ltd	Gas and diesel power generator, Hydro power generator	AU	Government of Australia	Announced
2.	1,847	Acquisition	KELAG-Karntner Elektrizitats-AG; Innogy SE's renewables business; Innogy SE's gas storage business	Electricity distributor, Gas distributor; Renewable energy generation services; Gas storage services	AT; DE; DE	RWE AG	Announced
3.	1,260	Minority stake 49%	FCC Aqualia SA	Water supply services provider, Water treatment services provider	ES	Global Infracore Spain SL	Announced
4.	898	Acquisition 100%	Alpiq InTec AG; Kraftanlagen Munchen GmbH	Building engineering services, Electrical installation services, Energy efficiency consulting services, Heating, ventilation, air conditioning, refrigeration and sanitation installation services, IT consulting and systems integration services, Security systems installation services; Pipeline construction services, Powerplant construction services	CH; DE	Bouygues Construction SA; Colas Rail Ltd	Pending
5.	790	Capital Increase 17%	Xinjiang Goldwind Science & Technology Co., Ltd	Wind power generation services, Wind turbines manufacturer	CN		Pending
6.	634	Capital Increase	An Hui Wenergy Co., Ltd	Electricity generation services, Energy saving project investment services	CN		Pending
7.	625	Minority stake 5%	Veolia Environnement SA	Electricity generation services, Water and waste treatment services	FR	Undisclosed investors	Completed
8.	623	Acquisition 100%	Genera Avante SL's thermal solar plant in Andalusia; Genera Avante SL's thermal solar plant in Extremadura	Geothermal electric power generation services, Hydroelectric power generation services, Renewable energies plants developer, Solar electric power generation services, Wind electric power generation services; Geothermal electric power generation services, Hydroelectric power generation services, Renewable energies plants developer, Solar electric power generation services, Wind electric power generation services	ES; ES	Grupo T-Solar Global SA	Completed
9.	495	IBO 100%	Attero Holding NV	Energy-from-waste producer holding company, Waste management services provider holding company, Waste treatment services provider holding company	NL	3i Infrastructure plc; DWS Group GmbH & Co. KGaA	Announced
10.	474	Minority stake	Beijing Chehejia Information Technology Co., Ltd	Power battery pack manufacturer, Smart electric vehicle manufacturer	CN	Matrix Management Corporation; Beijing Shougang Funds Co., Ltd; BlueRun Ventures LP; Intime Retail (Group) Co., Ltd; Future Capital; Beijing Source Code Capital Investment Co., Ltd; Fungcity Asset Management Co., Ltd; Investors	Completed

### Top 20 deals by value (cont'd)

	Deal value (mil USD)	Deal type	Target	Target business description	Target country	Acquiror	Deal status
11.	443	Minority stake 18%	Evoqua Water Technologies Corporation	Acquisition vehicle, Water and wastewater treatment consulting company holding company, Water and wastewater treatment systems manufacturer holding company, Water treatment equipment contractor services holding company	US		Completed
12.	401	Minority stake 17%	Atlantica Yield plc	Electric transmission line owner and operator, Renewable energy distribution services, Renewable energy production services	GB	Algonquin Power & Utilities Corporation	Announced
13.	353	Acquisition 100%	Tervita Corporation	Oil and gas demolition and clean up services, Remediation and reclamation services provider, Waste management services, Wellsite equipment rentals	CA	Newalta Corporation	Announced
14.	267	Acquisition 89%	Nuverra Environmental Solutions Inc.	Oil and gas water treatment services, Waste recycling services, Water treatment services	US		Announced
15.	227	Acquisition 100%	Brockaghboy Windfarm Ltd	Wind farm operator	GB	Greencoat UK Wind plc	Completed
16.	197	Acquisition majority stake	Trinity Holding BV	Solar electric power generation services holding company	NL	BayWa re Solar BV	Announced
17.	195	Acquisition 51%	Chenzhou Fengyue Science and Technology Co., Ltd	Non-ferrous metals recycling and manufacturing services	CN	Shenzhen Zhongliang Industry Co., Ltd	Pending
18.	182	Minority stake 1% to 3%	Pirelli & C SpA	Green fuel development services holding company, Hi-tech clothing manufacturer holding company, Renewable energy production services holding company, Tyres manufacturer holding company	IT	Norges Bank	Completed
19.	173	IBO	Infinis Ltd	Landfill gas-to-electricity generation services	GB	3i Infrastructure plc	Announced
20.	158	Capital Increase	Jolywood (Suzhou) Sunwatt Co., Ltd	Solar energy battery backsheet manufacturer	CN		Announced

### Target countries by volume

Target country	Mar-17	Feb-18	Mar-18
China	64	43	52
US	23	13	17
UK	7	11	15
Japan	17	5	10
Italy	12	3	10
Germany	26	12	9
Taiwan	10	4	8
Australia	16	6	7
Netherlands	3	0	7
France	3	7	6
Russia	3	2	5
South Korea	6	7	4
Thailand	2	2	3
Poland	7	6	3
Canada	3	6	2
Malaysia	9	0	2
Spain	8	5	2
India	13	3	2
Singapore	1	1	2

### Target countries by value

Target country	Mar-17 (mil USD)	Feb-18 (mil USD)	Mar-18 (mil USD)
Australia	960	20	5,097
Germany	138	49	2,772
China	1,777	1,852	2,654
Spain	266	1,510	1,883
Austria	0	0	1,847
UK	10	376	950
US	8,892	2,367	903
Switzerland	0	0	898
Netherlands	309	0	793
France	2	134	722
Canada	1	9	359
Italy	127	11	292
Russia	5	0	232
Japan	2,204	13	135
Malaysia	39	0	130
Finland	0	0	99
Taiwan	176	181	60
India	954	312	50
Singapore	56	1	34
Poland	4	66	34

### IPOs by volume and value

Announced date	No of deals	Total deal value (mil USD)
Mar-18	6	694
Feb-18	1	0
Jan-18	5	234
Dec-17	11	586
Nov-17	13	1,706
Oct-17	16	1,755
Sep-17	16	4,015
Aug-17	5	58
Jul-17	25	4
Jun-17	6	144
May-17	11	1,981
Apr-17	13	343
Mar-17	6	0

### March IPOs

	Deal value (mil USD)	Deal type	Target	Target business description	Target country	Announced date	Deal status
1.	393	Planned IPO 20% on Shanghai Stock Exchange	Ming Yang Smart Energy Group Ltd	Wind power generation equipments installation services, Wind turbine motor manufacturer	CN	02/03/2018	Pending
2.	157	Planned IPO 43% on Euronext Amsterdam	Alfen Beheer BV	ICU charging equipment manufacturer, Low voltage distributions manufacturer, Smart grids, energy storage systems and electric vehicle (EV) charging equipment manufacturer	NL	12/03/2018	Announced
3.	138	Planned IPO on London Stock Exchange	Gore Street Energy Storage Fund plc	Closed ended investment fund, Energy storage investment services, Renewable energy asset management services, Renewable energy infrastructure investment services	GB	09/03/2018	Announced
4.	6	IPO 20% on Indonesia Stock Exchange	Sky Energy Indonesia Tbk, PT	Solar panel installation services, Solar panel manufacturer	ID	27/03/2018	Completed
5.	n.a.	Planned IPO on National Equities Exchange and Quotations	Guangxi Huaxun Information Technology Co., Ltd	Biomass industry professional websites operator, Custom software developer, Marketing consulting services	CN	30/03/2018	Announced
6.	n.a.	Planned IPO on Korea New Exchange	SJ Chem Co., Ltd	Plastic products manufacturer, Water treatment chemical manufacturer	KR	20/03/2018	Announced

## 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