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Cleantech M&A Review November 2018

The following report details mergers and acquisitions activity in the cleantech sector in November 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.

Three USD 500mn+ investments drove value growth in November

The value of private equity, venture capital and development capital (PE, VC and DC) investment targeting cleantech companies in November advanced for the third consecutive month as growth was driven by three institutional buyouts which, together, accounted for the 70 per cent of the month's total known value of USD 4,364 million. This represented the second-highest value recorded for the last 12 months and it was more than four times the USD 957 million-worth of PE, VC and DC cleantech deals announced in November 2017.

Volume remained static month-on-month at 15 deals, which indicates value growth was not driven by prolific dealmaking, rather, it was supported by individual investments with single, large valuations. While volume remained level over the four weeks, it was down 42 per cent from 26 deals in November 2017.

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

Announced date	No of deals	Total deal value (mil USD)
Nov-18	15	4,364
Oct-18	15	2,010
Sep-18	33	1,026
Aug-18	12	670
Jul-18	19	2,491
Jun-18	25	891
May-18	25	1,973
Apr-18	27	5,721
Mar-18	23	2,528
Feb-18	18	2,123
Jan-18	26	432
Dec-17	23	1,870
Nov-17	26	957



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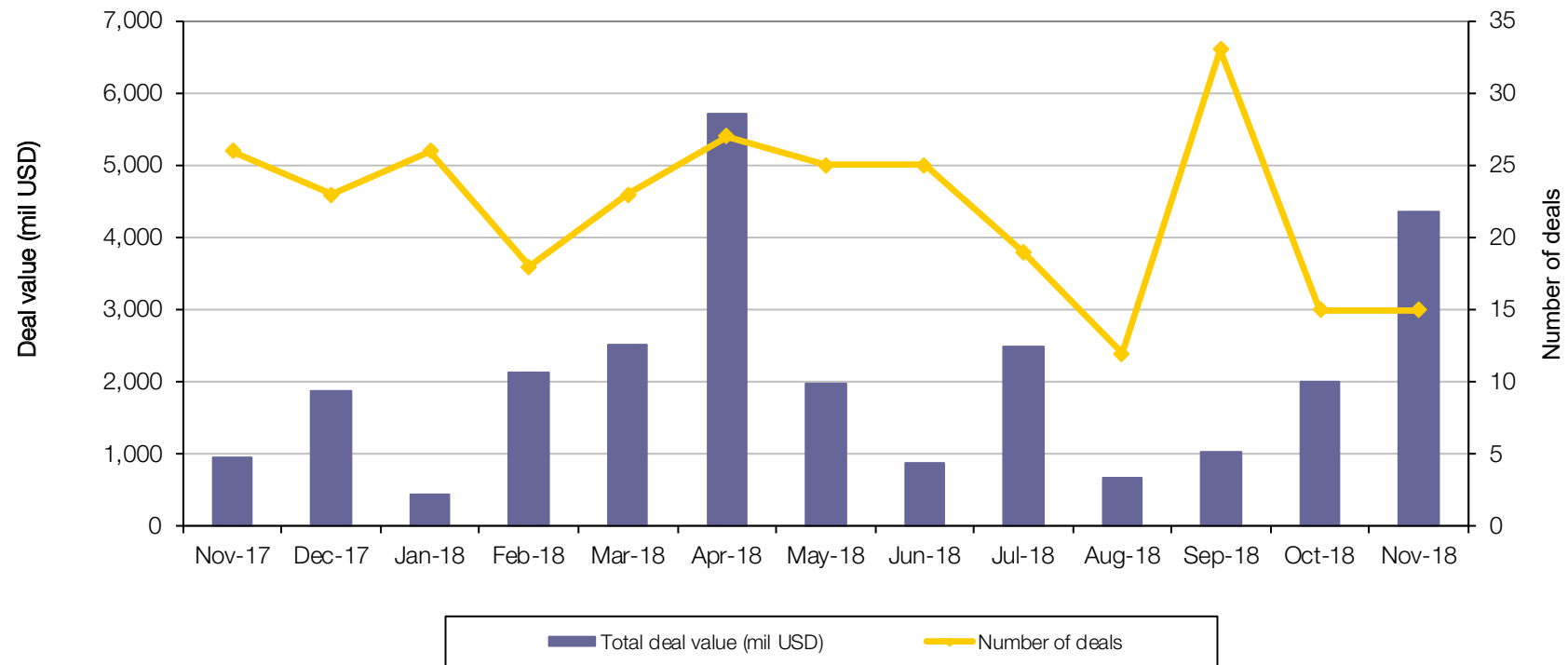


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Private equity, venture capital and development capital deals by volume and value



Spanish deal exceeded USD 1bn

The solar segment attracted the two single, largest PE, VC and DC investments by value in November as Alberta Investment Management bought a majority stake in Spanish wind farm and solar photovoltaic plant developer, builder and operator Eolia Renovables de Inversiones for USD 1,591 million and Actis announced the buyout of Essel Infraprojects' Indian solar power projects for USD 847 million. They were two of three PE, VC and DC cleantech deals announced in November that exceeded USD 500 million; the last one of the trio featured Platinum Equity planning to acquire Lonza's water care business and operations for USD 630 million.

ICBC Financial Asset Investment was the only sponsor that announced plans to back more than one cleantech company in November: it will invest USD 288 million in SPIC Jiangsu Electric Power for a 29 per cent stake, take a 27 per cent equity interest in Shanghai Electric Power New Power Development for USD 130 million, and inject USD 58 million in Shanghai Electric Power Dafeng Offshore Wind Power in exchange for a 25 per cent participation.

PE, VC and DC investors backed companies operating in categories ranging from electric car charging stations to recycling.

Aggregate Spanish deal value overtook China, which was top target country by volume

Cleantech companies based in China, the US, Spain, the UK, India, Australia, Germany, and France were targeted by PE, VC and DC investors, though deal value was only recorded for those targets based in Spain, the US, India, China, the UK and Australia.

China was the top target country by volume but was only fourth by value as the 4 deals recorded in November were only worth a combined USD 475 million, though this did represent an improvement month-on-month (USD 155 million) and year-on-year (USD 390 million).

Conversely, Spain was the top target country with an aggregate value of USD 2,043 million but was only joint-third by volume with 2 deals. However, like China, the result does represent an improvement month-on-month and year-on-year. While PE, VC and DC investment targeting Spain accounted for 47 per cent of the month's total value (USD 4,364 million), overall PE, VC and DC value growth was also propped up by aggregate deal value recorded for the US and India, both of which surpassed USD 800 million in November.

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.	1,591	IBO majority stake	Eolia Renovables de Inversiones SCR SA	Renewable solar photovoltaic energy generation services, Renewable wind energy generation services	ES	Alberta Investment Management Corporation	Pending
2.	847	IBO 100%	Essel Infraprojects Ltd's solar power projects	Solar power generation services	IN	Actis LLP	Announced
3.	630	IBO 100%	Lonza Group AG's water care business and operations	Innovative water treatment services	US	Platinum Equity LLC	Announced
4.	452	IBO 100%	Undisclosed solar plant in Mula	Solar plant operator	ES	Northleaf Capital Partners Ltd	Announced
5.	288	Minority stake 29%	SPIC Jiangsu Electric Power Co., Ltd	Fossil fuel electric power generation services, Power distributor, Solar power generation services, Wind power generation services	CN	ICBC Financial Asset Investment Co., Ltd	Pending
6.	240	Minority stake	ChargePoint Inc.	Open electric vehicle charging network operator	US	Siemens AG; American Electric Power Company Inc.; Quantum Energy Partners LP; Canada Pension Plan Investment Board; Chevron Technology Ventures LLC; Braemar Capital Management LLC; Daimler Trucks North America LLC; Linse Capital; ClearVision Equity Partners LLC	Completed
7.	130	Minority stake 27%	Shanghai Electric Power New Power Development Co., Ltd	Solar power generation services, Wind power generation services	CN	ICBC Financial Asset Investment Co., Ltd	Pending
8.	69	IBO 100%	Plus Renewable Technologies Ltd's nine operational UK ground mount solar assets	Solar power generation services	GB	NTR plc	Completed
9.	58	Minority stake 25%	Shanghai Electric Power Dafeng Offshore Wind Power Co., Ltd	Offshore wind power generation services	CN	ICBC Financial Asset Investment Co., Ltd	Pending
10.	34	IBO 100%	Solar PV plant in Middlemount (Qld), Australia	Solar electric power generation services	AU	SUSI Partners AG	Completed
11.	22	Minority stake	24M Technologies Inc.	High-energy storage systems developer, Semisolid lithium-ion battery manufacturer	US		Completed
12.	5	Minority stake	Wirelane GmbH	Electric car charging station management software developer, Electric car charging station manufacturer	DE	High-Tech Grunderfonds Management GmbH; Vito Ventures Management GmbH; coparion GmbH & Co. KG	Completed
13.	1	Minority stake	Sunstone IP Systems Ltd	Solar panel manufacturer	GB		Completed
14.	n.a.	Minority stake 20%	Grayscale Environmental Protection Technology (Shanghai) Co., Ltd	Green circulation recycling turnover box manufacturer	CN	Hangzhou Daocin Investment Management Co., Ltd; CIMC Venture Capital; Bore Investment	Completed
15.	n.a.	Minority stake	Environnement Recycling SARL	Recycling services	FR	BPIFrance SA	Completed

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

Target country	Nov-17	Oct-18	Nov-18
China	6	2	4
US	7	4	3
Spain	0	0	2
UK	2	1	2
India	3	0	1
Australia	0	0	1
Germany	2	1	1
France	2	1	1

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

Target country	Nov-17 (mil USD)	Oct-18 (mil USD)	Nov-18 (mil USD)
Spain	0	0	2,043
US	81	29	892
India	406	0	847
China	390	155	475
UK	25	1	70
Australia	0	0	34
Germany	5	6	5

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	Alberta Investment Management Corporation	1	1	1,591	1,591
2	Actis LLP	1	1	847	847
3	Platinum Equity LLC	1	1	630	630
4	ICBC Financial Asset Investment Co., Ltd	3	3	475	158
5	Northleaf Capital Partners Ltd	1	1	452	452
6	Daimler Trucks North America LLC	1	1	240	240
7	Siemens AG	1	1	240	240
8	American Electric Power Company Inc.	1	1	240	240
9	Canada Pension Plan Investment Board	1	1	240	240
10	Quantum Energy Partners LP	1	1	240	240
11	Chevron Technology Ventures LLC	1	1	240	240
12	ClearVision Equity Partners LLC	1	1	240	240
13	Braemar Capital Management LLC	1	1	240	240
14	Linse Capital	1	1	240	240
15	NTR plc	1	1	69	69
16	SUSI Partners AG	1	1	34	34
17	coparion GmbH & Co. KG	1	1	5	5
18	High-Tech Grunderfonds Management GmbH	1	1	5	5
19	Vito Ventures Management GmbH	1	1	5	5
20	Bore Investment	1	0	n.a.	n.a.
21	BPIFrance SA	1	0	n.a.	n.a.
22	Hangzhou Daocin Investment Management Co., Ltd	1	0	n.a.	n.a.
23	CIMC Venture Capital	1	0	n.a.	n.a.

Lack of USD 1bn+ deals held back value in November

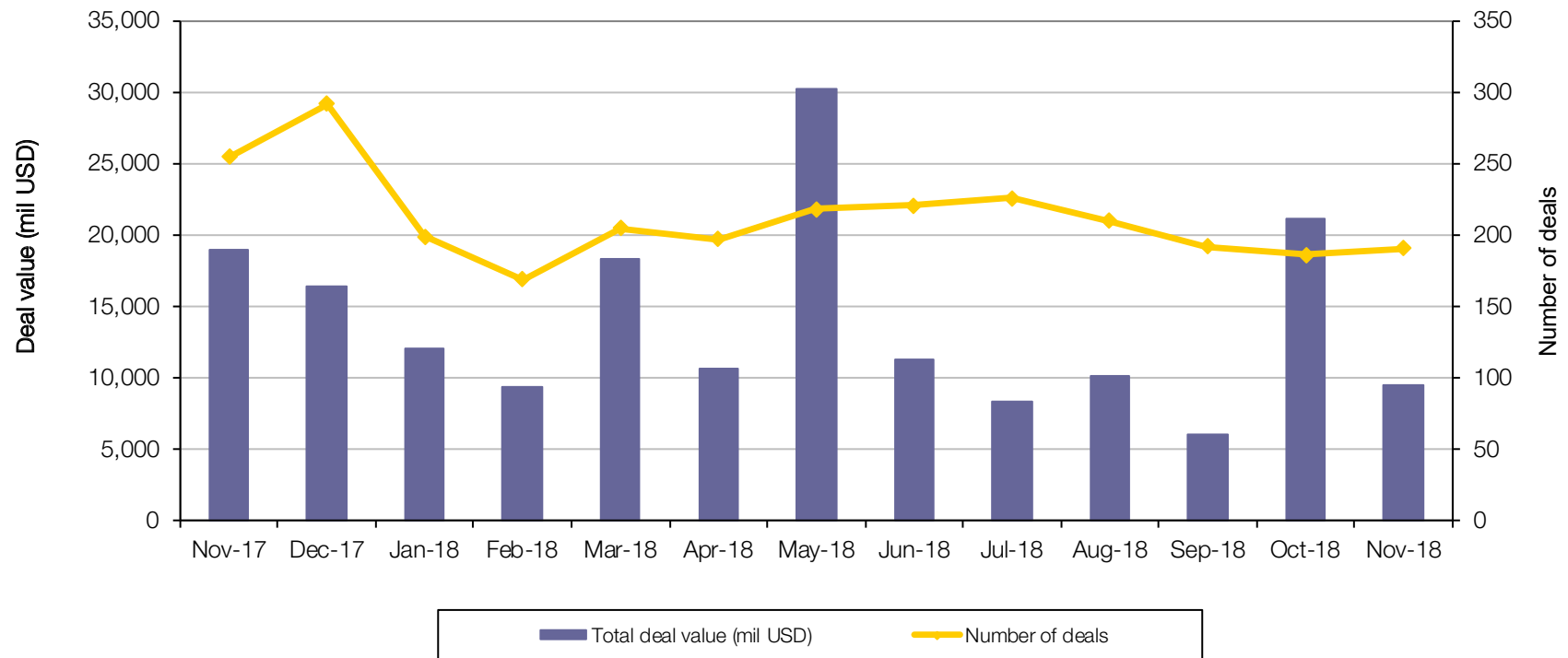
Mergers and acquisitions (M&A) targeting global cleantech companies continued to fluctuate in November as aggregate value more than halved to USD 9,465 million from USD 21,143 million, though it should be pointed out October's result represented the second-highest of the last 12 months. Volume rose marginally over the four weeks to 191 deals from 186 in October, which brought an end to three consecutive monthly declines. However, in a year-on-year comparison, November 2018 reversed growth recorded for November 2017 that had resulted in 255 deals worth an aggregate USD 19,005 million.

The institutional buyout of Eolia Renovables de Inversiones for USD 1,591 million was the largest cleantech M&A announced in November and the only one worth more than USD 1,000 million. However, in spite of Spain accounting for the month's biggest M&A deal, Chinese targets were the most prolific dealmakers with the highest aggregate value – with 75 deals worth a total USD 3,626 million – and they dominated the top 20 M&A deals by value in November, ceding eight places only to Spain, India, Australia, South Korea and the US.

Deals by volume and value

Announced date	No of deals	Total deal value (mil USD)
Nov-18	191	9,465
Oct-18	186	21,143
Sep-18	192	6,107
Aug-18	210	10,145
Jul-18	226	8,340
Jun-18	221	11,258
May-18	218	30,295
Apr-18	197	10,622
Mar-18	205	18,362
Feb-18	169	9,402
Jan-18	199	12,056
Dec-17	292	16,458
Nov-17	255	19,005

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.	1,591	IBO majority stake	Eolia Renovables de Inversiones SCR SA	Renewable solar photovoltaic energy generation services, Renewable wind energy generation services	ES	Alberta Investment Management Corporation	Pending
2.	847	IBO 100%	Essel Infracore Ltd's solar power projects	Solar power generation services	IN	Actis LLP	Announced
3.	796	Acquisition 100%	Ixom Holdco Pty Ltd	Water treatment chemical product manufacturer holding company	AU	Keppel Infrastructure Holdings Pte Ltd	Pending
4.	679	Acquisition 90%	GCL Intelligent Energy Co., Ltd	Biomass power plant operating services holding company, Coal power plant operating services holding company, Wind power plant operating services holding company	CN	Xiake Color Spinning Co., Ltd	Announced
5.	630	IBO 100%	Lonza Group AG's water care business and operations	Innovative water treatment services	US	Platinum Equity LLC	Announced
6.	452	IBO 100%	Undisclosed solar plant in Mula	Solar plant operator	ES	Northleaf Capital Partners Ltd	Announced
7.	418	Capital Increase	Risen Energy Co., Ltd	Solar cells manufacturer	CN		Announced
8.	369	Capital Increase 16%	Ningxia Jiaze Renewables Corporation Ltd	Investment services, New electronic power distribution services, Solar electric power services, Wind electric power generation services	CN	Investors	Pending
9.	288	Minority stake 29%	SPIC Jiangsu Electric Power Co., Ltd	Fossil fuel electric power generation services, Power distributor, Solar power generation services, Wind power generation services	CN	ICBC Financial Asset Investment Co., Ltd	Pending
10.	240	Minority stake	ChargePoint Inc.	Open electric vehicle charging network operator	US	Siemens AG; American Electric Power Company Inc.; Quantum Energy Partners LP; Canada Pension Plan Investment Board; Chevron Technology Ventures LLC; Braemar Capital Management LLC; BMW i Ventures LLC; Daimler Trucks North America LLC; Linse Capital; ClearVision Equity Partners LLC; GIC Pte Ltd	Completed

Top 20 deals by value (cont'd)

	Deal value (mil USD)	Deal type	Target	Target business description	Target country	Acquiror	Deal status
11.	177	Acquisition 100%	Zhongmin Xinneng Ningxia Tongxin Co., Ltd	Photothermal power generation services, Solar photovoltaic power generation services, Water power generation services, Wind power generation services	CN	Shandong Sacred Sun Power Sources Co., Ltd	Pending
12.	144	Joint venture 100%	Yancheng Offshore State-owned Wind Power Co., Ltd	Power plant construction services, Wind power generation services	CN	Yancheng State-owned Energy Investment Co., Ltd; Yancheng Xinfeng New Energy Development Co., Ltd; Shenzhen Fuwang Technology Co., Ltd	Completed
13.	130	Acquisition 100%	AUC Group LP	Wastewater treatment facilities turnkey services	US	AquaVenture Holdings Ltd	Completed
14.	130	Minority stake 27%	Shanghai Electric Power New Power Development Co., Ltd	Solar power generation services, Wind power generation services	CN	ICBC Financial Asset Investment Co., Ltd	Pending
15.	128	Capital Increase	Guangzhou Great Power Energy & Technology Co., Ltd	Rechargeable battery manufacturer, Solar cell manufacturer	CN		Pending
16.	115	Capital Increase	Tbea Sunoasis Co., Ltd	Photovoltaic engineering installation services, Photovoltaic power generation services, Photovoltaic products manufacturer, Thermal power generation services, Wind power generation services	CN	Xinte Energy Co., Ltd	Announced
17.	106	Acquisition 100%	Huvis Water Corporation	Engineering services, Water treatment machinery manufacturer	KR	TSK Corporation Co., Ltd	Announced
18.	105	Acquisition 100%, 70%, 25%	Shanghai Shenzhou New Energy Development Co., Ltd; Shanghai Solar Energy Science & Technology Co., Ltd; Gansu Shanghang Electric Power Operation and Maintenance Co., Ltd	Solar cell manufacturer; Photovoltaic plant construction services; Electricity engineering services, Power equipment maintenance services	CN; CN; CN	Shanghai Aerospace Industry (Holding) Co., Ltd	Announced
19.	100	Minority stake 10%	Tech-Bank Food Co., Ltd	Animal feed product manufacturer, Biodiesel manufacturer, Fish product manufacturer, Pigs farming services	CN	Zhejiang Provincial Agricultural Development Group Co., Ltd	Announced
20.	91	Acquisition 100%	NGL Water Solutions Bakken LLC	Treatment and disposal of wastewater services	US	Tallgrass Energy Corporation	Pending

Target countries by volume

Target country	Nov-17	Oct-18	Nov-18
China	88	59	75
UK	12	8	11
Germany	15	6	10
France	6	6	10
Spain	12	11	9
Australia	17	11	7
Taiwan	1	2	7
US	13	9	7
Japan	8	7	6
Vietnam	1	5	5
India	8	2	4
South Korea	5	6	4
Malaysia	5	3	4
Russia	2	0	3
Canada	4	3	3
Thailand	3	0	2
Colombia	0	1	2
Singapore	4	3	2
Italy	7	8	2
Norway	5	4	2
British Virgin Islands	0	0	2
Poland	2	4	2
South Africa	3	0	2

Target countries by value

Target country	Nov-17 (mil USD)	Oct-18 (mil USD)	Nov-18 (mil USD)
China	4,705	1,772	3,626
Spain	40	528	2,061
US	1,064	659	1,148
India	673	528	851
Australia	291	53	843
UK	1,522	1,098	179
South Korea	83	1,552	169
Norway	25	39	93
Italy	859	15	69
France	241	208	63
Cuba	0	0	60
British Virgin Islands	0	0	48
Cayman Islands	374	82	48
South Africa	8	0	39
Japan	5,631	5,700	29
Thailand	135	0	27
Germany	26	40	27
Sweden	36	73	23
Taiwan	12	13	21
Malaysia	128	1	14
Netherlands	0	3	8
Belgium	0	0	8
Canada	106	155	7

IPOs by volume and value

Announced date	No of deals	Total deal value (mil USD)
Nov-18	4	121
Oct-18	7	731
Sep-18	13	162
Aug-18	4	405
Jul-18	10	44
Jun-18	5	880
May-18	7	1,039
Apr-18	9	47
Mar-18	6	545
Feb-18	1	0
Jan-18	5	235
Dec-17	12	512
Nov-17	13	1,706

November IPOs

	Deal value (mil USD)	Deal type	Target	Target business description	Target country	Announced date	Deal status
1.	113	IBO 38% Madrid Stock Exchange	Solarpack Corporacion Tecnologica SL	Photovoltaic energy park construction services provider, Photovoltaic energy park operator, Photovoltaic energy production consultancy services provider	ES	20/11/2018	Completed
2.	7	IBO 6% on Belgrade Stock Exchange	Fintel Energija AD	Wind electric power generation services	RS	20/11/2018	Completed
3.	n.a.	Planned IPO 27% on ACE Market of Bursa Malaysia	Mattan Bhd	Hydropower plant construction services holding company, Renewable energy consultation and advisory services holding company, Solar power plant and renewable energy facilities construction services holding company	MY	13/11/2018	Announced
4.	n.a.	Planned IPO on Ho Chi Minh City Stock Exchange	PetroVietnam Power Corporation	Coal fired thermal power generation service holding company, Hydropower generation service holding company	VN	16/11/2018	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