



BUREAU VAN DIJK

# Monthly M&A Activity Report

Cleantech, September 2016

zephyr

m&a research  
catalyst



The following report details mergers and acquisitions activity in the cleantech sector in September 2016 using data from the Zephyr database.

It focuses on deal activity by target company.

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

#### Cleantech PE, VC and DC activity declines month-on-month

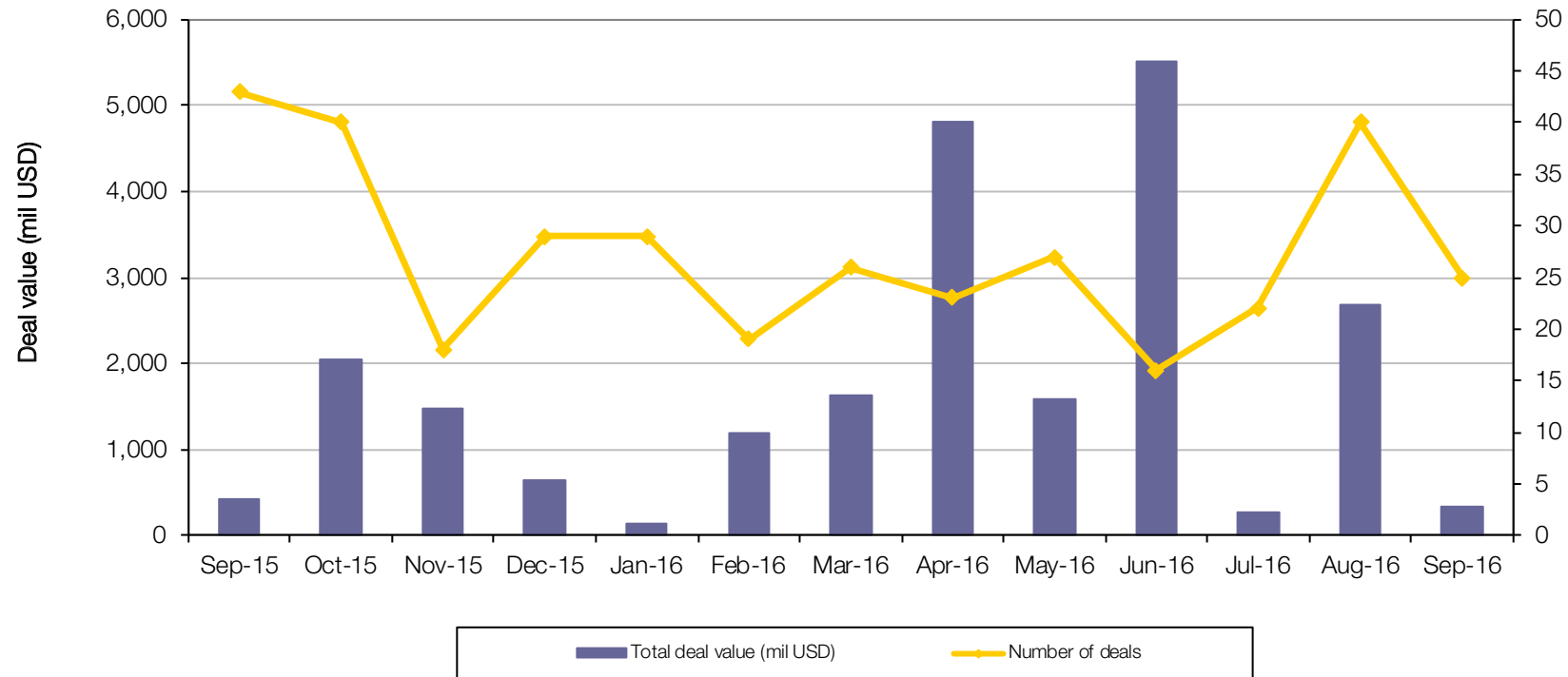
Both the volume and value of private equity, venture capital and development capital (PE, VC and DC) deals targeting cleantech companies declined in September as USD 328 million was invested across 25 deals. In terms of volume this represents a 38 per cent drop from 40 in August, while value dropped 88 per cent from USD 2,680 million over the same timeframe.

The same pattern was detected year-on-year, with volume declining at an even steeper rate from 43 in September 2015, while value slipped to a lesser extent from USD 430 million. Despite the disappointing showing, value actually surpassed both July 2016 (USD 262 million) and January 2016 (USD 137 million) while volume improved on July 2016 (22), June 2016 (16) and April 2016 (23), among others.

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

Announced date	No of deals	Total deal value (mil USD)
Sep-16	25	328
Aug-16	40	2,680
Jul-16	22	262
Jun-16	16	5,503
May-16	27	1,586
Apr-16	23	4,804
Mar-16	26	1,631
Feb-16	19	1,181
Jan-16	29	137
Dec-15	29	636
Nov-15	18	1,481
Oct-15	40	2,055
Sep-15	43	430

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





### UK wind farm targeted in September's largest PE, VC and DC deal

The largest PE, VC and DC deal targeting a cleantech company in September was worth USD 102 million and took the form of an acquisition of UK wind farm operator Afton Wind Farm by InfraRed Infrastructure Fund. This was worth more than double the second-placed transaction as ORIX Corporation and UOB Venture Management agreed to subscribe for new shares worth around USD 50 million in Vietnamese hydropower plant operator Bitexco Power Joint Stock Company.

In all 11 of the month's top 20 deals featured a US target, while other countries to feature include Germany, Israel, Canada and France.

These deals were backed by the likes of Wellington Partners, Bessemer Venture Partners, New Energy Capital Partners and BDC Capital Corporation.

### US companies lead by volume, UK by value

Companies based in the US were targeted more than any other country in September, having featured in 11 deals, ahead of the UK, which placed second with four, while Canada, France and Germany all followed with two each. The top two switched places by value as despite the US featuring in more deals, the UK led the way with investment of USD 115 million while the US was second with USD 78 million. Vietnam placed third with USD 50 million, although this amount is solely attributable to the Bitexco Power Joint Stock Company deal.

Significant value increases in the likes of Vietnam, Germany and Israel, none of which attracted any investment in August, came at the expense of the US, Switzerland and Spain, all of which declined in terms of value month-on-month.

Many companies actually registered an increase in volume in September, with the US, Russia, Spain and China among those which failed to build on last month's result.

### 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.	102	IBO 100%	Afton Wind Farm Ltd	Wind farm operator	GB	InfraRed Capital Partners Ltd	Completed
2.	50	Minority stake	Bitexco Power Joint Stock Company	Hydropower plant operator	VN	Orix Corporation; UOB Venture Management Pte Ltd	Announced
3.	47	Minority stake	Heliatek GmbH	Solar photovoltaic plants manufacturer, Solar photovoltaic technology developer	DE	BNP Paribas SA; High-Tech Grunderfonds Management GmbH; Wellington Partners GmbH; BASF SE; TUDAG TU Dresden Aktiengesellschaft; Innogy Venture Capital GmbH; E-Capital Equity Management; AQTON Private Equity GmbH; Engie SA; CEE Management GmbH	Completed
4.	32	Minority stake	OTClarity Ltd	Cyber security services	IL	Mitsui & Co., Ltd; Bessemer Venture Partners LLC; Israel Cleantech Ventures; Innovation Endeavors LLC; Marker Financial Advisors LLC; Red Dot Capital Partners	Completed
5.	20	Minority stake	Agrivida Inc.	Biofuel and biochemical crop developer	US		Completed
6.	20	Minority stake	Pine Gate Renewables LLC	Solar energy production services	US	New Energy Capital Partners LLC	Completed
7.	15	Minority stake	D Light Design Inc.	Other Technology	US	Omidyar Network Services LLC; NewQuest Capital Management (Cayman) Ltd; KawiSafi Ventures Ltd; Energy Access Venture SAS	Completed
8.	14	Minority stake	Saildrone Inc.	Wind and solar powered data capturing unmanned surface vehicles manufacturer	US	Lux Capital Management LLC; Capricorn Investment Group LLC; Social Capital PEP Management LLC	Completed
9.	13	Minority stake	RiverRidge Recycling Ltd	Skip hire services, Waste management and recycling services	GB	Business Growth Fund plc	Completed
10.	6	Minority stake	Axine Water Technologies Inc.	Wastewater treatment solutions developer	CA	Chrysalix Energy Management Inc.; Asahi Kasei Corporation; The Roda Group; BDC Capital Corporation	Completed

### Private equity, venture capital and development capital deals by value (Cont'd)

	Deal value (mil USD)	Deal type	Target	Target business description	Target country	General Partner/Fund Manager	Deal status
11.	4	Minority stake	Just Push Pay LLC	Online banking and payments platform operator, Online mobile banking and payments application developer	US	IDEA Fund Partners LLC; Grotech Management Company; Route 66 Ventures LLC	Completed
12.	3	Minority stake	RENEW Energy Efficiency Projects LLC	Business Services	US		Announced
13.	0	Minority stake	TLS Geothermics SAS	Geosciences research facility services, Geothermal exploration, development and power project management	FR		Announced
14.	0	Minority stake	Operant Solar Corporation	Other Technology	US		Announced
15.	0	Minority stake	Maine Biomass Exports Inc.	Other Energy	US		Completed
16.	0	Minority stake 49%	IdroUS	Water purification equipment wholesaler	US	Simest SpA	Completed
17.	0	Minority stake	TEQ Charging Inc.	Electric vehicle charging power manufacturer	US	TechStars LLC	Completed
18.	0	Minority stake	SmartCool Systems Inc.	Energy efficiency technology developer	CA		Completed
19.	0	Minority stake 6%	TEQ Charging Inc.	Electric vehicle charging power manufacturer	US	TechStars LLC	Completed
20.	n.a.	Minority stake	endiio GmbH	Air quality, temperature and humidity measuring sensor manufacturer, Online air quality, temperature and humidity information platform operator, Online mobile air quality, temperature and humidity control mobile application developer	AT	aws Fondsmanagement GmbH; Situlus Holding GmbH	Completed



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

Target country	Sep-15	Aug-16	Sep-16
US	14	22	11
UK	2	3	4
Canada	0	1	2
France	5	0	2
Germany	1	1	2
Peru	0	0	1
Vietnam	0	0	1
Austria	1	1	1
Israel	0	0	1
Chile	0	0	1

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

Target country	Sep-15 (mil USD)	Aug-16 (mil USD)	Sep-16 (mil USD)
UK	0	24	115
US	300	706	78
Vietnam	0	0	50
Germany	0	0	47
Israel	0	0	32
Canada	0	2	6

### Private equity, venture capital and development capital investors

Private equity firm	Number of deals	Number with consideration	Total deal value (mil USD)	Average deal value (mil USD)
1 InfraRed Capital Partners Ltd	1	1	102	102
2 UOB Venture Management Pte Ltd	1	1	50	50
3 Orix Corporation	1	1	50	50
4 E-Capital Equity Management	1	1	47	47
5 Innogy Venture Capital GmbH	1	1	47	47
6 Engie SA	1	1	47	47
7 CEE Management GmbH	1	1	47	47
8 High-Tech Grunderfonds Management GmbH	1	1	47	47
9 BNP Paribas SA	1	1	47	47
10 TUDAG TU Dresden Aktiengesellschaft	1	1	47	47
11 AQTON Private Equity GmbH	1	1	47	47
12 Wellington Partners GmbH	1	1	47	47
13 BASF SE	1	1	47	47
14 Bessemer Venture Partners LLC	1	1	32	32
15 Red Dot Capital Partners	1	1	32	32
16 Mitsui & Co., Ltd	1	1	32	32
17 Israel Cleantech Ventures	1	1	32	32
18 Innovation Endeavors LLC	1	1	32	32
19 Marker Financial Advisors LLC	1	1	32	32
20 New Energy Capital Partners LLC	1	1	20	20





### M&A volume and value down month-on-month and year-on-year

Both the volume and value of mergers and acquisitions (M&A) targeting cleantech companies declined in September as USD 11,678 million was invested across 212 deals. In terms of volume this represents a 2 per cent drop on the 216 deals signed off in August and 14 per cent from 246 in September 2015.

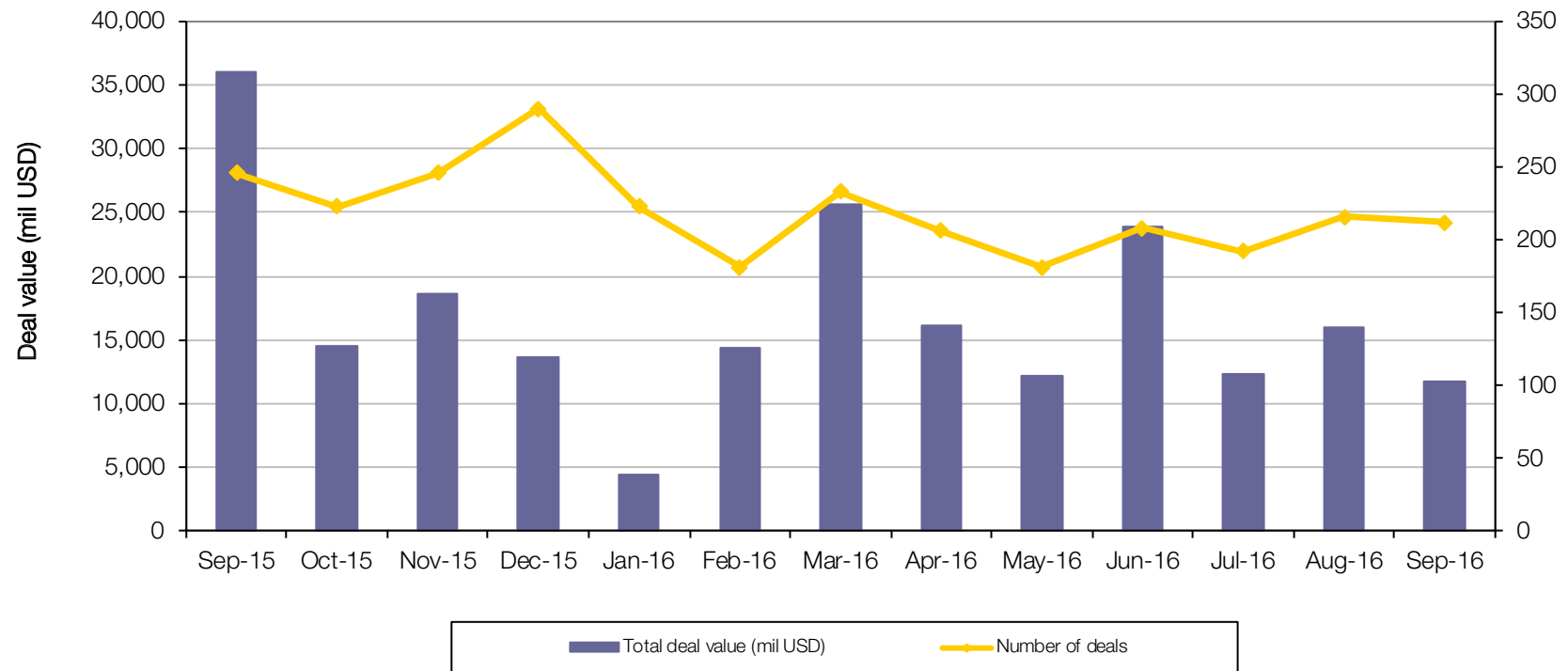
Value also declined month-on-month, slipping 27 per cent from USD 15,960 million in August and 68 per cent from USD 36,038 million in September 2015.

Despite the disappointing results there were still a few significant cleantech deals signed off in September as two transactions broke the USD 1,000 million barrier. The most valuable was worth USD 2,767 million as Firion Investments agreed to pick up Spanish waste collection firm Urbaser in a deal which is expected to close by the end of Q4. This was followed by a USD 1,798 million investment in hydroelectric, thermal, biomass, and wind power company CPFL Energia by State Grid International Development.

### Deals by volume and value

Announced date	No of deals	Total deal value (mil USD)
Sep-16	212	11,678
Aug-16	216	15,960
Jul-16	192	12,290
Jun-16	208	23,814
May-16	181	12,199
Apr-16	206	16,089
Mar-16	233	25,628
Feb-16	181	14,348
Jan-16	223	4,406
Dec-15	290	13,702
Nov-15	246	18,678
Oct-15	223	14,581
Sep-15	246	36,038

### 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.	2,767	Acquisition 100%	Urbaser SA	Beach cleaning services, Hazardous waste treatment and disposal services, Hazardous waste collection services, Non-hazardous waste collection services, Sewerage services, Sorted materials recovery services, Sports facilities operator, Waste collection services, Waste management services, Water and solid waste management services	ES	Firion Investments SL	Announced
2.	1,798	Minority stake 24%	CPFL Energia SA	Electricity distribution services holding company, Electricity transmission services holding company, Energy consultancy services, Hydroelectric, thermal, biomass, and wind power electricity generation services holding company	BR	State Grid International Development Co., Ltd	Pending
3.	630	Acquisition 100%	Van Gansewinkel Groep BV	Energy producer, Waste management services, Waste recycling services	NL	Shanks Netherlands Holdings BV	Announced
4.	392	Acquisition 100%	SunEdison Inc.'s Indian assets	Solar energy generation services, Wind power generation services	IN	Greenko Energy Holdings	Announced
5.	359	Acquisition increased to 100%	Taizhou Lerrri Solar Technology Co., Ltd	Monocrystalline solar products manufacturer, Monocrystalline solar technology developer	CN	Lerrri Solar Technology Co., Ltd	Announced
6.	359	Acquisition increased to 100%	Lerrri Solar Technology Co., Ltd	Monocrystalline solar products manufacturer, Solar cells and related electronic products manufacturer	CN	Xi'an Longji Silicon Materials Co., Ltd	Announced
7.	328	Capital Increase 4%	Suez SA	Hazardous waste treatment services, Waste collection services, Waste recycling services, Water purification services	FR		Completed
8.	307	Capital Increase 20%	NextEra Energy Partners LP	Clean energy generation services, Solar electricity project operator	US		Completed
9.	305	Capital Increase	SolarCity Corporation	Comprehensive solar power system financing services, Comprehensive solar power system installation services, Online comprehensive solar power system monitoring platform developer, Online comprehensive solar power system monitoring platform operator	US	Soros Fund Management LLC	Completed
10.	283	Capital Increase	Tervita Corporation	Oil and gas demolition and clean up services, Remediation and reclamation services provider, Waste management services, Wellsite equipment rentals	CA		Announced

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

	Deal value (mil USD)	Deal type	Target	Target business description	Target country	Acquiror	Deal status
11.	218	Minority stake 24%	Desert Sunlight Investment Holdings LLC	Solar photovoltaic (PV) power facility operator holding company	US	NextEra Energy Partners LP	Announced
12.	180	Capital Increase 10%	Keda Clean Energy Co., Ltd	Ceramic tile, building bricks, artificial stone and other building materials making machinery manufacturer, Hydraulic pump manufacturer	CN	Macrolink Holdings Co., Ltd; Wuhu Jishi Equity Investment Fund (LP)	Pending
13.	170	Minority stake	AUO SunPower Sdn Bhd	Solar cell manufacturer	MY	SunPower Technology Ltd	Completed
14.	167	Capital Increase 32%	United Photovoltaics Group Ltd	Solar plant investment services, Solar power plant operator	BM	ORIX Asia Capital Ltd; China Merchants New Energy Group Ltd; New Energy Exchange Ltd	Pending
15.	156	Acquisition 100%	Municipal Authority of the City of McKeesport's wastewater system assets	Sewage treatment services provider, Solid waste collection services provider	US	Pennsylvania-American Water Company	Pending
16.	155	Minority stake increased from 21% to 33%	China Tianying Inc.	Living garbage incineration power generation services, Living garbage incineration steam services, Waste water treatment services, Medical instrument manufacturer, Mobile communication equipment manufacturer	CN	Employee Stock Ownership Plan; Nantong Qianchuang Investment Co., Ltd	Announced
17.	150	Acquisition increased to 100%	Anhui Linyang New Energy Technology Co., Ltd	Solar photovoltaic equipment manufacturer, Wind power generation equipment manufacturer	CN	Jiangsu Linyang Energy Co., Ltd	Pending
18.	144	Acquisition 100%	Suzhou Akcome Optoelectronic Technology Co., Ltd	Solar cell manufacturer	CN	Jiangsu Akcome Science & Technology Co., Ltd	Pending
19.	126	Capital Increase 27%	Shanks Group plc	Waste management and disposal services	GB		Announced
20.	120	Acquisition increased to 100%	Shandong Linyang New Energy Technology Co., Ltd	Solar photovoltaic products manufacturer, Wind power equipment manufacturer	CN	Jiangsu Linyang Energy Co., Ltd	Pending



### Target countries by volume

Target country	Sep-15	Aug-16	Sep-16
China	53	51	70
US	46	34	24
Germany	2	12	19
UK	12	11	15
Canada	6	9	7
Japan	4	5	6
France	7	1	6
Italy	4	3	4
Thailand	13	11	4
Sweden	4	4	4
Finland	7	1	4
Taiwan	2	1	4
South Korea	9	11	4
Spain	12	3	3
India	11	6	3
Austria	1	1	3
Vietnam	2	4	3

### Target countries by value

Target country	Sep-15 (mil USD)	Aug-16 (mil USD)	Sep-16 (mil USD)
China	16,997	6,848	2,860
Spain	447	726	2,767
Brazil	0	330	1,798
US	1,985	3,896	1,155
Netherlands	4	0	630
UK	101	124	447
India	81	134	414
France	11,697	21	330
Canada	229	50	294
Bermuda	168	1,927	179
Malaysia	4	4	170
Germany	7	24	121
South Korea	159	55	74
Taiwan	16	120	71
Vietnam	0	185	66
Japan	24	15	60
Italy	543	28	47
Luxembourg	0	0	39
Israel	0	0	32
British Virgin Islands	0	0	21



## IPOs by volume and value

Announced date	No of deals	Total deal value (mil USD)
Sep-16	6	5,862
Aug-16	1	0
Jul-16	2	3
Jun-16	8	1,357
May-16	3	2,839
Apr-16	3	156
Mar-16	3	510
Feb-16	1	18
Jan-16	4	15
Dec-15	4	341
Nov-15	2	1
Oct-15	1	0
Sep-15	4	123

## September IPOs

Target name	Innogy SE	AquaVenture Holdings LLC	va-Q-tec AG	Suzhou YourBest New Materials Co., Ltd	WHA Utilities and Power PCL	Ripasso Energy AB
Deal value (mil USD)	5,573	117	93	79	n.a.	n.a.
Deal type	IPO 25% - Frankfurt and Xetra Stock Exchange	IPO 26% on NYSE	IPO 51% on Frankfurt Stock Exchange	Planned IPO 25% on Shenzhen Stock Exchange ChiNext Board	Planned IPO on Stock Exchange of Thailand	Planned IPO on Nordic Growth Market
Target country	DE	US	DE	CN	TH	SE
Target business	Electricity provider	Bottleless water coolers and filtration water systems manufacturer holding company, Bottleless water coolers and filtration water systems rental services, Water treatment facility construction services holding company, Water treatment facility operator holding company	Temperature controlled container rental services, Thermal-related consultancy services, Vacuum insulation panels and materials manufacturer	Photovoltaic cell module connection tin-coated copper strip manufacturer	Power generation services, Waste water treatment services, Water supplier	Solar energy conversion machine manufacturer
Announced date	22/09/2016	23/09/2016	07/09/2016	30/09/2016	06/09/2016	26/09/2016
Deal status	Completed	Completed	Completed	Pending	Announced	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"

Activity is based on the activity of the target company

Deal status is announced, completed, pending or unconditional