

Zephyr Annual Cleantech Report 2009

Section 1: Venture Capital, Private Equity and Development Capital

You are free to use any data or commentary from this report in your articles as long as the source is cited as “Zephyr published by BvD”.

The following report details deal activity in the cleantech sector in 2009 using data from the ZEPHYR database.

It focuses on global deals by target companies within the cleantech sector. See notes to editors for a definition of cleantech.

Section 1 offers a breakdown of venture capital, private equity and development capital-backed transactions.

Section 2 details mergers and acquisitions.

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

Deals by volume and value

Private equity and venture capital investment in the cleantech industry fell away in 2009 and as bidders struggled to secure financing, strong gains made in 2008 were almost reversed.

At USD 4,360 million, total deal value was well under half the USD 10,161 million recorded in 2008 and particularly disappointing when compared with the near-threefold annual increase from USD 3,522 million in 2007. Deal volume fell at a slower rate year-on-year, dropping by almost a fifth to 164 transactions.

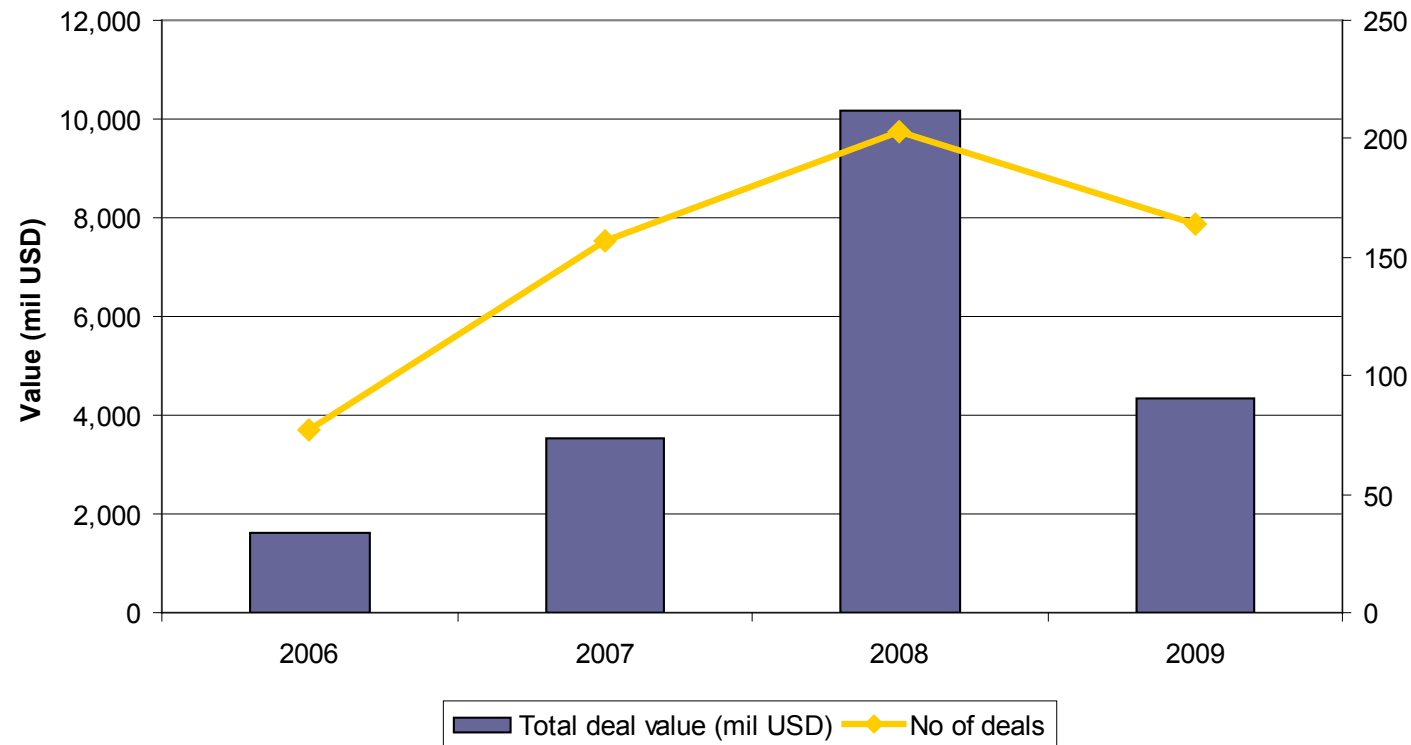
Announced year	No of deals	Total deal value (mil USD)
2009	164	4,360
2008	203	10,161
2007	157	3,522
2006	77	1,618

Zephyr Annual Cleantech Report 2009

Section 1: Venture Capital, Private Equity and Development Capital

You are free to use any data or commentary from this report in your articles as long as the source is cited as "Zephyr published by BvD".

Deals by volume and value



Zephyr Annual Cleantech Report 2009

Section 1: Venture Capital, Private Equity and Development Capital

You are free to use any data or commentary from this report in your articles as long as the source is cited as “Zephyr published by BvD”.

Top 20 private equity deals by value

	Deal value (mil USD)	Target	Target business description	Target region	Deal type	Equity provider	Announced date
1	391	AIG Financial Products Corporation and 360 Corporate Finance SA's 3 photovoltaic plants in Spain	Photovoltaic plant	ES	IBO 100%	HgCapital Ltd	18/03/09
2	376	Vento III	Wind-powered electricity generation services	US	Minority stake	JP Morgan; New York Life Capital Partners LLC; GE Energy Financial Services Inc.	02/12/09
3	350	EverPower Wind Holdings Inc.	Wind farm developer	US	IBO 100%	Terra Firma Capital Partners Ltd	26/08/09
4	250	Invenergy Wind LLC	Wind farm operator	US	Minority stake		21/01/09
5	216	Dokie Ridge Wind Project	Wind farm operator	CA	Acquisition 100%	GE Energy Financial Services Inc.	01/09/09
6	202	Seajacks International Ltd	Offshore lifeboat vessels construction services	BM	IBO 100%	Riverstone Holdings LLC	21/12/09
7	200	Bloom Energy Corporation	Fuel cell research and development services	US	Minority stake	Wilson Sonsini Goodrich & Rosati	24/03/09
8	198	Solyndra Inc.	High efficiency photovoltaics technology developer	US	Minority stake	Argonaut Private Equity	04/09/09
9	117	Horizon Wind Energy LLC's Blue Canyon V wind farm	Wind-powered energy producer	US	Minority stake	GE Energy Financial Services Inc.	02/12/09
10	98	Amonix Inc.	High Concentration Photovoltaic power generation systems developer	US	Minority stake		19/11/09

Zephyr Annual Cleantech Report 2009

Section 1: Venture Capital, Private Equity and Development Capital

You are free to use any data or commentary from this report in your articles as long as the source is cited as "Zephyr published by BvD".

Top 20 private equity deals by value

	Deal value (mil USD)	Target	Target business description	Target region	Deal type	Equity provider	Announced date
11	95	BP Energy India Pvt Ltd	Wind power services	IN	Acquisition 100%	IDFC Private Equity	11/09/09
12	80	Centrica (Lincs) Ltd	Wind farm operator	GB	Acquisition 50%	Siemens Project Ventures GmbH	23/12/09
13	78	SolFocus Inc.	Solar energy technology developer	US	Minority stake	New Enterprise Associates Inc.; Apex Venture Partners; Advanced Equities Inc.; NGEN Partners LLC; Yellowstone Capital Inc.; Demeter Partners	09/01/09
14	76	Fotovoltaica Los Navalmorales SL's 11 MW solar energy plant in Navalmorales	Solar energy producer	ES	Acquisition 100%	Nmas1 Eolia SGEGR SA	31/12/09
15	75	Suniva	Solar cell technology developer	US	Minority stake	New Enterprise Associates Inc.; Warburg Pincus Equity Partners LP; HIG Ventures; Apex Venture Partners; Advanced Equities Inc.	27/07/09
16	70	Norsun AS	Renewable energy engineering services	NO	Minority stake	Norsk Hydro ASA; Good Energies Investments BV; Scatec AS	10/03/09
17	64	Enfinity Management	Renewable energy technology developer, Renewable energy technology investment holding company	BE	IBO majority stake	Waterland Private Equity Investments BV	24/02/09
18	58	Zhaoheng Hydropower Co., Ltd	Hydropower generator	HK	Minority stake	Olympus Capital Holdings Asia - Hong Kong	14/07/09
19	56	Foresta Capital SL's 2 solar power plants in Spain	Solar power plant	ES	IBO 100%	Impax Environmental Markets plc	04/03/09
20	51	Imperative Energy Ltd	Biofuel system installation and maintenance services	IE	Minority stake	Cerigo Développement Sàrl	04/08/09

Zephyr Annual Cleantech Report 2009

Section 1: Venture Capital, Private Equity and Development Capital

You are free to use any data or commentary from this report in your articles as long as the source is cited as “Zephyr published by BvD”.

Geography

The majority of cleantech private equity investment targeted US-based companies, with these 57 deals accounting for USD 2,191 million, or 50 per cent, of the year’s USD 4,360 million total.

Spain was the second most important target country in monetary terms with a total value of USD 609 million. However, with 15 deals apiece to Spain’s 11, France and the UK were second placed by volume of deals.

Canada was an important growth region in 2009 with deal value more than tripling year-on-year despite 2008’s six deals dropping to five. Meanwhile, year-on-year gains in volume and value were recorded for Ireland, France, Belgium and Norway, as well as Italy, Estonia, Hong Kong and Austria.

The UK’s USD 181 million worth of private equity and venture capital investment cleantech companies almost reversed two years of strong growth and represented an annual decline of 75 per cent. Volume fell at the significantly slower rate of 12 per cent in the UK from 17 deals to 15 over the 12 months to December 2009.

Zephyr Annual Cleantech Report 2009

Section 1: Venture Capital, Private Equity and Development Capital

You are free to use any data or commentary from this report in your articles as long as the source is cited as "Zephyr published by BvD".

Target countries by volume and value

Target country	2006	2007	2008	2009
US	30	76	92	57
France	2	8	12	15
UK	9	19	17	15
Spain	7	10	13	11
Italy	0	2	2	9
Germany	10	11	12	8
China	3	2	12	7
Sweden	0	0	2	6
Canada	6	10	6	5
Belgium	1	1	0	5
Israel	0	3	6	4
Norway	1	0	2	3
Australia	0	1	3	3
India	0	4	7	2
Estonia	0	0	1	2
Switzerland	1	0	1	2
Hong Kong	0	1	0	1
Austria	1	1	0	1
Spain	0	0	0	1
Ireland	1	0	0	1

Target country	2006 (mil USD)	2007 (mil USD)	2008 (mil USD)	2009 (mil USD)
US	627	1,095	3,528	2,191
Spain	450	278	1,573	609
Canada	38	452	68	229
Bermuda	0	0	0	202
UK	129	768	724	181
China	8	86	393	126
India	0	101	190	125
Norway	105	0	1	87
France	7	122	65	80
Belgium	42	5	0	77
Sweden	0	0	105	75
Hong Kong	0	7	0	58
Ireland	156	0	0	51
Germany	27	64	269	50
Spain	0	0	0	46
Italy	0	3	8	39
Estonia	0	0	4	30
South Korea	0	0	0	25
Taiwan	0	0	0	19
Austria	0	9	0	15

Zephyr Annual Cleantech Report 2009

Section 1: Venture Capital, Private Equity and Development Capital

You are free to use any data or commentary from this report in your articles as long as the source is cited as “Zephyr published by BvD”.

Top 20 private equity and venture capital investors

	Equity provider	Number of deals	Number with consideration	Total deal value (mil USD)	Average deal value (mil USD)
1	GE Energy Financial Services Inc.	3	3	709	236
2	HgCapital Ltd	2	2	414	207
3	JP Morgan	2	1	376	376
4	New York Life Capital Partners LLC	1	1	376	376
5	Terra Firma Capital Partners Ltd	1	1	350	350
6	Riverstone Holdings LLC	2	1	202	202
7	Wilson Sonsini Goodrich & Rosati	1	1	200	200
8	Argonaut Private Equity	1	1	198	198
9	New Enterprise Associates Inc.	3	3	177	59
10	Advanced Equities Inc.	2	2	153	76
11	Apex Venture Partners	2	2	153	76
12	NGEN Partners LLC	3	3	110	37
13	IDFC Private Equity	1	1	95	95
14	Siemens Project Ventures GmbH	2	1	80	80
15	Demeter Partners	1	1	78	78
16	Yellowstone Capital Inc.	1	1	78	78
17	Nmas1 Eolia SGEGR SA	1	1	76	76
18	HIG Ventures	1	1	75	75
19	Warburg Pincus Equity Partners LP	1	1	75	75
20	Norsk Hydro ASA	1	1	70	70

Zephyr Annual Cleantech Report 2009

Section 2: Mergers and Acquisitions

You are free to use any data or commentary from this report in your articles as long as the source is cited as “Zephyr published by BvD”.

Deals by volume and value

The global downturn did not deter M&A activity in the cleantech sector and 2009 heralded the third successive year of improvement in deal volume and value. A total of 1,084 transactions worth USD 52,442 million were recorded over the 12 months, representing year-on-year gains of 11 per cent and 4 per cent, respectively.

The gain contrasts with a 20 per cent annual value growth in 2008 but in a year of decline – and compared to a 57 per cent slump in the value of cleantech private equity investments – a positive result is one to be touted.

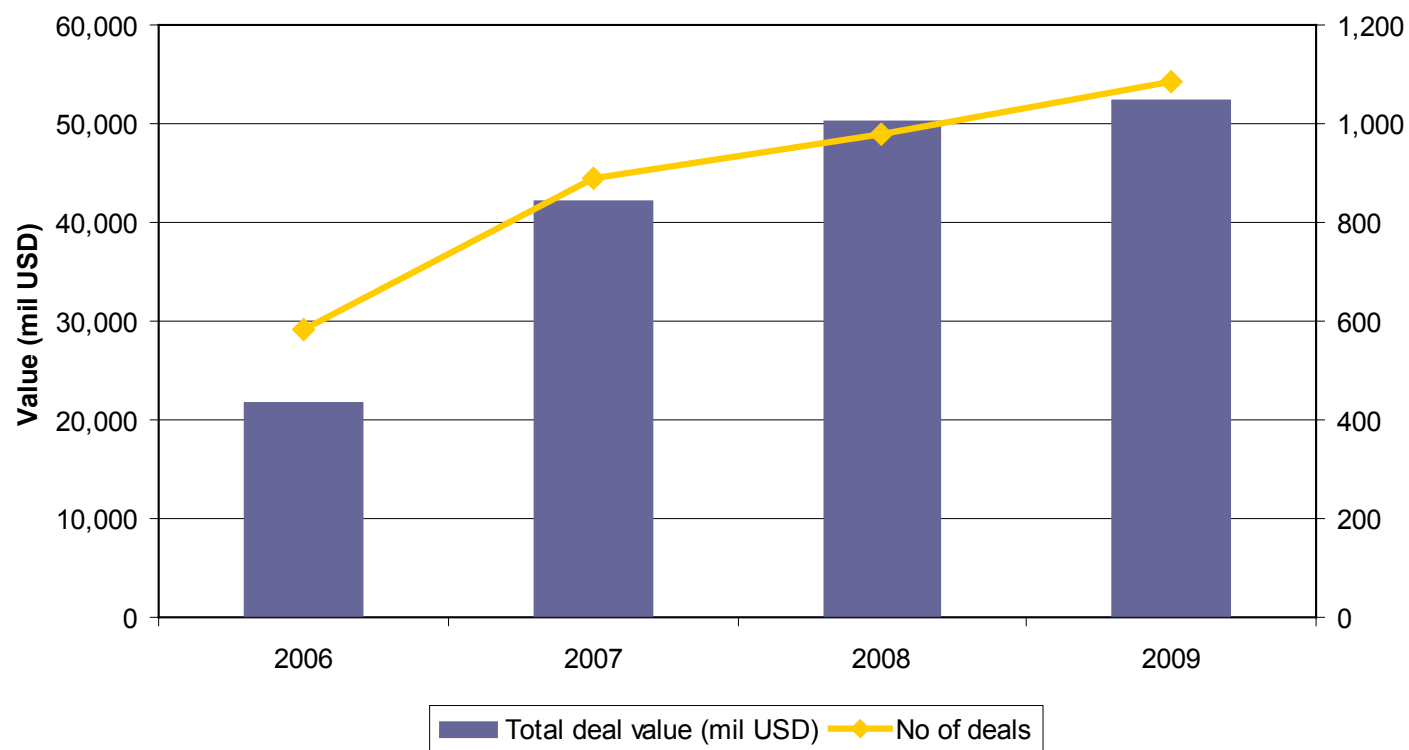
Announced year	No of deals	Total deal value (mil USD)
2009	1,084	52,442
2008	978	50,264
2007	888	42,041
2006	585	21,680

Zephyr Annual Cleantech Report 2009

Section 2: Mergers and Acquisitions

You are free to use any data or commentary from this report in your articles as long as the source is cited as "Zephyr published by BvD".

Deals by volume and value



Zephyr Annual Cleantech Report 2009

Section 2: Mergers and Acquisitions

You are free to use any data or commentary from this report in your articles as long as the source is cited as “Zephyr published by BvD”.

Top 20 deals by value

	Deal value (mil USD)	Target	Target business description	Target region	Deal type	Acquiror	Announced date
1	15,716	China Three Gorges Project Corporation's electricity generation assets; Yangtze River Three Gorges Industry Co., Ltd; Yangtze Three Gorges Equipment & Materials Co., Ltd; Yangtze Three Gorges Hydroelectric Engineering Co., Ltd; Three Gorges International Tendering Co., Ltd; Three Gorges Hi-Tech Information Technology Co., Ltd	Hydropower project operator, Hydropower generation equipment supplier, Hydropower plant engineering services, Hydropower project tendering services	CN	Acquisition	China Yangtze Power Co., Ltd	15/08/09
2	3,399	GCL Solar Energy Technology Holdings Inc.; Greatest Joy International Ltd	Investment holding company	KY; VG	Acquisition	GCL-Poly Energy Holdings Ltd	03/06/09
3	2,901	Jaiprakash Power Ventures Ltd (old)	Electric power generator	IN	Acquisition 100%	Jaiprakash Hydro Power Ltd	04/07/09
4	1,433	E.ON AG's 13 hydro power plants in Bavaria, Germany	Hydroelectric power plant operator	DE	Acquisition 100%	Österreichische Elektrizitätswirtschafts-AG	08/06/09
5	1,206	Energy Development Corporation	Geothermal exploration and development	PH	Minority stake		19/05/09
6	1,000	Xinjiang Goldwind Science & Technology Co., Ltd	Wind power generation holding company, Wind turbines manufacturer	CN	Minority stake 15%		31/08/09
7	865	Brookfield Renewable Power Inc.'s Canadian renewable power generation business	Renewable energy services provider	CA	Acquisition	Great Lakes Hydro Income Fund	06/07/09
8	841	Renewable Energy Corporation ASA	Silicon and silicon wafers producer	NO	Minority stake 17%		06/05/09
9	743	Elkem Energi Siso AS; Elkem Energi Lakshola AS	Hydropower plant operation services	NO	Acquisition	Norsk Vannkraftproduksjon AS	05/10/09
10	709	Renewable Energy Corporation ASA	Silicon and silicon wafers producer	NO	Minority stake 26%		23/06/09

Zephyr Annual Cleantech Report 2009

Section 2: Mergers and Acquisitions

You are free to use any data or commentary from this report in your articles as long as the source is cited as "Zephyr published by BvD".

Top 20 deals by value

	Deal value (mil USD)	Target	Target business description	Target region	Deal type	Acquiror	Announced date
11	666	Wu Ling Power Corporation	Hydropower generator and distributor	CN	Acquisition 63%	China Power International Development Ltd	08/06/09
12	540	Apollo Precision Ltd	Investment holding company	VG	Acquisition 100%	RBI Holdings Ltd	03/09/09
13	529	BP Hellas SA's ground fuels business	Petrol stations and fuel storage facilities operator	GR	Acquisition 100%	Hellenic Petroleum SA	26/06/09
14	500	China Investment Corporation and GCL-Poly Energy Holdings Ltd's photovoltaic projects or other solar energy developing joint venture	Photovoltaic and solar energy developer	CN	Joint venture 100%	GCL-Poly Energy Holdings Ltd; Chengdong Investment Corporation	24/11/09
15	450	National Power Corporation's San Roque hydroelectric power plants	Hydroelectric manufacturer	PH	Acquisition 100%	Strategic Power Development Corporation	16/12/09
16	436	Renewable Energy Corporation ASA	Silicon and silicon wafers producer	NO	Minority stake 8%	Institutional Investors	02/10/09
17	418	Solel Solar Systems Ltd	Solar thermal power generation technology manufacturer	IL	Acquisition 100%	Siemens International Holding BV	15/10/09
18	400	OptiSolar Inc.'s project development business	Semiconductor products manufacturer	US	Acquisition 100%	First Solar Inc.	02/03/09
19	393	Energy Developments Ltd	Electric power generation, Power station developer and operator, Waste-to-energy conversion projects developer and operator	AU	Acquisition 100%	Greenspark Power Holdings Ltd	30/11/09
20	391	AIG Financial Products Corporation and 360 Corporate Finance SA's 3 photovoltaic plants in Spain	Photovoltaic plant	ES	IBO 100%	HgCapital Ltd	18/03/09

Zephyr Annual Cleantech Report 2009

Section 2: Mergers and Acquisitions

You are free to use any data or commentary from this report in your articles as long as the source is cited as “Zephyr published by BvD”.

Geography

China was comfortably 2009’s number one target of cleantech M&A activity, with its total of USD 20,032 million standing almost four times that of its nearest rival, the US. China’s result was more than double that of 2008 but the most impressive year-on-year growth was recorded for companies registered in tax havens such as the British Virgin Islands and the Cayman Islands.

Cleantech firms in the US were the most frequent deal targets in 2009, as had been the case in 2008. A total of 147 transactions were recorded for the US, representing 14 per cent of the year’s 1,084 total and putting it ahead of China with 114 deals.

The US is undoubtedly one of the most important countries for cleantech investment though 2009 brought a decline; deal volume fell by almost a third year-on-year and value was down by over than a fifth.

Zephyr Annual Cleantech Report 2009

Section 2: Mergers and Acquisitions

You are free to use any data or commentary from this report in your articles as long as the source is cited as "Zephyr published by BvD".

Target countries by volume and value

Target country	2006	2007	2008	2009
US	135	207	215	147
China	34	66	92	114
Germany	51	94	82	85
South Korea	2	18	44	68
Italy	24	28	36	63
UK	60	54	61	62
Canada	33	52	44	51
Australia	40	46	41	48
Spain	24	49	55	39
Sweden	18	21	19	29
Taiwan	10	41	22	27
France	22	40	35	26
Switzerland	13	8	9	22
Japan	7	4	10	21
India	6	16	26	19
Belgium	5	2	10	17
Norway	18	13	9	14
Hong Kong	1	2	5	13
Malaysia	8	4	10	13
Netherlands	9	8	9	12

Target country	2006 (mil USD)	2007 (mil USD)	2008 (mil USD)	2009 (mil USD)
China	568	2,292	8,257	20,032
US	7,327	9,587	6,515	5,114
British Virgin Islands	4	1,951	3	4,207
Cayman Islands	28	450	602	4,165
India	0	205	265	3,538
Norway	503	1,866	191	3,299
Germany	2,485	2,687	8,341	2,247
Canada	204	1,250	738	1,885
Philippines	129	1,679	565	1,802
Taiwan	663	673	683	1,269
UK	896	2,126	1,932	1,057
Spain	2,851	3,090	3,633	981
Australia	448	1,169	506	769
South Korea	11	166	335	588
Greece	0	1,723	71	549
Bermuda	0	7	44	500
Israel	0	15	146	447
Hong Kong	79	490	30	420
Netherlands	1	901	601	365
Italy	976	1,758	1,022	360

Zephyr Annual Cleantech Report 2009

Section 1: Venture Capital, Private Equity and Development Capital

You are free to use any data or commentary from this report in your articles as long as the source is cited as “Zephyr published by BvD”.

Top 20 financial advisors

	Advisor	Number of deals	Number with consideration	Total deal value (mil USD)	Average deal value (mil USD)
1	CITIC Securities Co., Ltd	1	1	15,716	15,716
2	Morgan Stanley	13	12	4,247	354
3	Deutsche Bank	5	4	3,943	986
4	HSBC Bank	2	2	3,493	1,746
5	ICBC International Capital Ltd	1	1	3,399	3,399
6	Credit Suisse	12	10	2,292	229
7	Rothschild	12	9	1,598	178
8	First Securities ASA	2	2	945	473
9	PricewaterhouseCoopers - Corporate Finance	3	2	920	460
10	DBS Asia Capital Ltd	1	1	666	666
11	BOCI Asia Ltd	1	1	666	666
12	The Royal Bank of Scotland Group plc	2	2	402	201
13	Deloitte	3	3	396	132
14	Palladio Partners Pty Ltd	1	1	393	393
15	Pacific Equity Partners Pty Ltd	1	1	393	393
16	UBS	1	1	393	393
17	Lonergan Edwards & Associates Ltd	1	1	393	393
18	Climate Change Capital Ltd	1	1	350	350
19	Barclays Capital plc	1	1	350	350
20	Citigroup Inc.	7	3	312	104

Zephyr Annual Cleantech Report 2009

Notes to Editors

You are free to use any data or commentary from this report in your articles as long as the source is cited as “Zephyr published by BvD”.

Notes to editors

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

The key words are: alternative energy, alternative power, bio-diesel, biodiesel, biomass, bioenergy, bio energy, bio-energy, biofuel, fuel cell, geothermal, geo-thermal, hydrogen, hydropower, hydro-power, photovoltaic, renewable energy, reuseable energy, re-usable energy, solar, waste to energy, wave power, wind farm and wind power

- 2) Activity is based on the activity of the target company

- 3) Deal status is announced

- 4) When a deal has multiple targets the value of the deal will count against the target countries of all companies involved in the deal