

**EQUITY RESEARCH** 

13 January 2010

# EUROPEAN RENEWABLES: 2010 OUTLOOK

COMING OF AGE



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# Summary of our Rating, Price Target and Earnings Changes in this Report (all changes are shown in bold)

Company	Rating	Price	Pri	ice Targ	et	EP	S FY1	(E)	EP	S FY2	(E)
	Old New	11-Jan-10	Old	New	%Chg	Old	New	%Chg	Old	New	%Chg
European Renewables: Energy Efficiency	2-Neu 2-Neu										
Abengoa SA (ABG SQ / ABG.MC)	2-EW <b>1-OW</b>	23.30	20.00	28.50	42	1.52	1.91	26	2.38	2.65	11
AMG Advanced Metallurgical Group NV (AMG NA / AMG.AS)	3-UW 3-UW	9.37	4.00	5.00	25	-1.49	-1.49	-	0.95	0.95	-
Outotec Oyj (OTE1V FH / OTE1V.HE)	1-OW 1-OW	25.76	30.00	32.50	8	1.17	1.17	-	1.29	1.29	-
European Renewables: Solar	1-Pos 1-Pos										
centrotherm photovoltaics AG (CTN GR / CTNG.DE)	1-OW 1-OW	45.33	43.00	47.50	10	1.89	1.89	-	3.33	3.33	-
Conergy AG (CGY GR / CGYG.DE)	2-EW 2-EW	0.87	0.46	0.75	63	-0.21	-0.21	-	-0.03	-0.03	-
Manz Automation AG (M5Z GR / M5ZG.F)	3-UW 3-UW	65.11	25.00	55.00	120	-1.68	-2.10	-25	0.91	1.30	43
Meyer Burger Technology AG (MBTN SW / MBTN.S)	2-EW 2-EW	271.50	78.00	250.00	221	10.22	7.14	-30	15.73	10.47	-33
Phoenix Solar AG (PS4 GR / PS4G.F)	1-OW 1-OW	42.98	43.00	50.00	16	3.31	1.57	-53	4.15	3.78	-9
PV Crystalox Solar PLC (PVCS LN / PVCS.L)	3-UW <b>1-0W</b>	0.68	0.55	0.80	45	0.08	0.08	-	0.08	0.07	-12
Q-Cells SE (QCE GR / QCEG.F)	2-EW 2-EW	12.59	11.00	10.50	-5	-9.16	-9.16	-	0.20	0.15	-25
Renewable Energy Corp. ASA (REC NO / REC.OL)	1-OW 1-OW	40.85	80.00	70.00	-12	-0.94	-0.99	-5	2.03	1.92	-5
Roth & Rau AG (R8R GR / R8RG.F)	2-EW 2-EW	32.20	20.50	30.00	46	1.11	1.11	-	1.23	1.34	9
SMA Solar Technology AG (S92 GF / S92G.F)	1-OW 1-OW	97.10	90.00	125.00	39	4.26	4.26	-	4.19	4.93	18
Solar Millennium AG (S2M GR / S2MG.F)	2-EW 2-EW	44.22	20.00	35.00	75	2.28	2.42	6	3.35	3.09	-8
Solaria Energia y Medio Ambiente S.A. (SLR SM / SLRS.MC)	3-UW 3-UW	2.85	2.10	2.10	-	0.40	0.20	-50	0.28	0.17	-39
SolarWorld AG (SWV GR / SWVG.F)	2-EW 2-EW	16.36	15.10	15.50	3	0.85	0.85	-	0.97	0.97	-
Solon SE (SOO1 GR / SOOG.F)	3-UW 3-UW	8.42	7.00	6.50	-7	-4.48	-10.13	-126	1.06	-0.85	-180
Wacker Chemie AG (WCH GR / WCHG.DE)	1-OW 1-OW	120.05	145.00	145.00	-	3.01	0.16	-95	8.90	7.90	-11
European Renewables: Wind	1-Pos 1-Pos										
Acciona SA (ANA SQ / ANA.MC)	2-EW 2-EW	95.63	100.00	105.00	5	20.12	20.89	4	3.63	4.65	28
Clipper Windpower PLC (CWP LN / CWPR.L)	2-EW 2-EW	1.75	2.00	1.95	-3	-0.52	-1.10	-112	-0.31	-0.30	3
EDF Energies Nouvelles S.A. (EEN FP / EEN.PA)	3-UW <b>2-EW</b>	38.47	26.00	36.00	38	1.06	0.96	-9	0.92	0.83	-10
EDP Renovaveis S.A. (EDPR PL / EDPR.LS)	1-OW 1-OW	6.97	8.75	8.25	-6	0.14	0.18	29	0.27	0.24	-11
Gamesa Corporacion Tecnologica S.A. (GAM SM / GAM.MC)	1-OW <b>2-EW</b>	12.64	19.00	14.00	-26	0.86	0.68	-21	1.28	0.91	-29
Greentech Energy Systems A/S (GES DC / G3E.CO)	3-UW 3-UW	24.60	17.50	16.00	-9	0.54	-5.62	-1141	0.54	0.66	22
Hansen Transmissions International N.V. (HSN LN / HSNT.L)	1-OW 1-OW	1.10	1.40	1.30	-7	0.01	0.00	-100	0.05	0.07	40
Iberdrola Renovables S.A. (IBR SM / IBR.MC)	2-EW <b>1-OW</b>	3.43	3.30	3.95	20	0.10	0.10	-	0.11	0.13	18
Nordex AG (NDX1 GF / NDXGk.F)	2-EW 2-EW	11.25	13.75	13.00	-5	0.35	0.35	-	0.47	0.47	-
REpower Systems AG (RPW GR / RPWGn.DE)	2-EW 2-EW	146.75	110.00	110.00	-	5.33	5.11	-4	6.24	6.37	2
Suzlon Energy Limited (SUEL IN / SUZL.BO)	2-EW <b>1-OW</b>	94.75	55.00	125.00	127	7.97	0.79	-90	8.49	6.19	-27
Terna Energy SA (TENERGY GA / TENr.AT)	2-EW 2-EW	6.60	4.25	5.75	35	0.17	0.17	-	0.28	0.18	-36
Theolia S.A. (TEO FP / TEO.PA)	2-EW 2-EW	3.47	2.50	2.75	10	-0.43	-0.13	70	-0.26	-0.23	12
Vestas Wind Systems A/S (VWS DC / VWS.CO)	1-OW 1-OW	327.60	565.00	540.00	-4	2.82	2.82	-	3.58	3.16	-12

Source: Barclays Capital Share prices and target prices are shown in the primary listing currency and EPS estimates are shown in the reporting currency.

FY1(E): Current fiscal year estimates by Barclays Capital. FY2(E): Next fiscal year estimates by Barclays Capital. Stock Rating: 1-OW: 1-Overweight 2-EW: 2-Equal Weight 3-UW: 3-Underweight RS: RS-Rating Suspended

Sector View: 1-Pos: 1-Positive 2-Neu: 2-Neutral 3-Neg: 3-Negative

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# **EXECUTIVE SUMMARY**

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Julien Roques +44 (0)20 777 30901 julien.roques@barcap.com Barclays Capital, London The European Renewables team is pleased to present our *2010 Outlook* which contains our key stock ideas for 2010, recommendation changes, valuation analysis, benchmarking review, an update of our proprietary Renewables Health Outlook (our 6-12 month lead indicator), summary of Concentrating Solar Thermal and our *Knowledge Pages* for each company.

We outline below our stock recommendations for 2010 and our recommendation changes for the year. Our key stocks for 2010 have average upside potential to their price target of 33.6% and reflect our conviction in these for the full year. Our investment selection process to select these names is based upon own valuation and benchmarking of our entire coverage universe, individual meetings with 15 companies in November (including four CEOs and seven CFOs) and also reflects our global co-ordinated approach to renewables with Europe, Asia and the Americas. We roll forward our valuation model to calendar year 2010. In addition, we amend our price target assumptions and EPS forecasts to reflect company expectations and sub sector growth rates for the period from 2010 to 2012.

### European Renewables recommendation structure

	Wind						Solar								ency
Wind ma	nufactu	rers	Wind o	perat	ors	Upstr	ream		Downstrea	m	Equipmen	t			
Vestas		1-OW	EDP R		1-OW	REC		1-OW	Phoenix Solar	1-OW	Centrotherm	1-OW	Outotec		1-OW
Hansen		1-OW	IBR	<b>↑</b>	1-OW	Wacker		1-OW	SMA Solar	1-OW	Roth & Rau	2-EW	Abengoa	1	1-OW
Suzlon	1	1-OW	EDF EN	<b>↑</b>	2-EW	PV Crystalox	<b>↑</b>	1-OW	Solar Millennium	2-EW	Meyer Burger	2-EW	AMG		3-UW
Clipper		2-EW	Acciona		2-EW	Q-Cells		2-EW	Conergy	2-EW	Manz	3-UW			
Nordex		2-EW	Terna Energy		2-EW	SolarWorld		2-EW	Solon	3-UW					
Repower		2-EW	Theolia		2-EW				Solaria Energia	3-UW					
Gamesa	$\downarrow$	2-EW	Greentech		3-UW										

Key 2010 Overweight, ↑ upgrade, ↓ downgrade Source: Barclays Capital

# Key stock recommendations for 2010

We outline our key stock recommendations for 2010. Over 2009, on average the share price for our 1-Overweight recommendations increased by 49.1% against 37.1% for our 2-Equal Weight recommendations and 36.8% for our 3-Underweight recommendations.

# Our key 1-OW ratings for 2010

	Company		Price target	Sh price**	Up/Downside	BarCap Vs	Consensus	BarCap Vs	Consensus
						2010e Sales	2010e Ebit	2010e Sales	2010e Ebit
Key wind	Vestas	DKK	540.0	327.6	64.8%	2.0%	17.0%	14.5%	24.4%
Key wind emerging market	Suzlon*	INR	125.0	94.8	31.9%	-6.1%	7.6%	-5.3%	3.7%
Key solar	SMA Solar	€	125.0	97.1	28.9%	-5.7%	1.1%	0.2%	11.5%
Key solar mid cap	Phoenix Solar	€	50.0	43.0	16.3%	-5.0%	8.9%	0.4%	22.2%
Key energy efficiency	Outotec	€	32.5	25.8	26.0%	-0.6%	44.2%	2.7%	37.2%

\*FY 2011 and 2012 for Suzlon which reports YE March \*\*Share prices at close on 11 January 2010 Source: FactSet, Barclays Capital

### Vestas (1-Overweight, DKK 540 PT, 64.8% upside potential)

We maintain our preference for Vestas as a key 1-Overweight recommendation in the wind sector. Over 2009, Vestas' stock performance was limited by reduced order intake as a constrained financing environment resulted in lower project development in key wind markets, in particular the US. In addition, we believe given management focus on maintaining turbine pricing, the company seeded certain contracts in 2009 to competitors who were more amenable to reducing ASPs to secure orders. Over 2010 however, we believe that as demand returns, in particular during the second half of the year, given its diverse geographical presence and broad range of high quality turbines, Vestas' order book is likely to grow materially. In addition, we believe that tier I competitors such as Siemens and GE which have entered into delivery contracts during 2009 are likely to have limited capacity available to book additional orders and this may favour Vestas as wind farm developers seek to secure additional turbines. Third, we believe that Vestas is likely to benefit from its diverse customer base, geographic presence and broad range of turbines and demand develops favourably in emerging markets such as China and East Europe. On valuation, Vestas trades on a 2010E EV/EBIT of 10.3x against a wind sector average of 16.9x. Given that installation activity for this year is likely to be back end loaded, we lower our 2010 revenue forecasts by 17.6% to reflect a less favourable demand outlook for the first half and reduce our price target to DKK540 from DKK565.

### SMA Solar Technology (1-Overweight, €125 PT, 28.9% upside potential)

SMA Solar represents our preferred 1-Overweight recommendation in the solar sector for a number of reasons. First, the company benefits from a flexible business model which allows it to rapidly adjust production capacity based on end market demand. During 2009, the company increased its quarterly output from 243MW in Q1 to 1,174MW in Q3 by intensively using temporary workers and outsourcing. Second, we believe the company is likely to benefit from forecast growth in the solar market for 2010, in particular from Germany - ahead of proposed changes to the feed-in tariffs. Management has outlined plans to increase production capacity to 9-10GW per annum over 2010. In addition, based on our channel checks, we believe that the company's capacity is sold out, at least until the first half of this year. Third, we draw attention to SMA's 1GW capacity ramp up in the US market, which we believe positions the company to benefit from expected growth in the country over the next two to three years. Fourth, we believe that SMA benefits from strong in-house R&D capabilities which allow the company to maintain technology leadership over new entrants. The company has set itself a target of introducing 5-6 new products every year to maintain its competitive edge. Fifth, SMA has set up a strong sales network in key markets such as Germany, France, Spain and Italy and benefits from a favourable brand perception and relationships with local installers and developers. On valuation, SMA trades on a 2010E EV/EBIT of 12.5x against a solar sector average of 12.2x and a renewables sector average of 15.4x. We increase our price target to €125 from €90.

### Suzlon (1-Overweight, INR 125 PT, 31.9% upside potential)

Suzlon is our key emerging market recommendation in the wind sector. We believe the ongoing debt restructuring exercise which is likely to be completed by February this year, together with the sale of its stake in Hansen, materially strengthens Suzlon's balance sheet and provides the company additional flexibility to complete REpower's acquisition. Second, once fully consolidated, the REpower acquisition allows management to compete in the international market with high quality turbines and improve the company's own technology platform through knowledge share between the two manufacturers. Third, we believe

Suzlon is likely to benefit from recent regulatory changes in the Indian market, where the company has more than 50% market share. Fourth, based on our channel checks, we believe Suzlon is seen a preferred partner by major wind farm developers seeking to diversify their turbine portfolio over new entrants such as Goldwind, Dongfang and Sinovel in terms of turbine quality and warranties. Finally, we believe Suzlon is likely to be able to leverage its low cost manufacturing base to maintain profitability in the present environment where turbine pricing may come under pressure. On our forecasts, Suzlon trades at a 2010E EV/EBIT of 12.1x against a wind sector average of 16.9x. We increase our price target from INR55 to INR125 and upgrade to 1-Overweight.

### Outotec (1-Overweight, €32.5 PT, 26.0% upside potential)

Outotec ("OT") reflects our preferred name in the European Energy Efficiency sector for a number of key reasons. First, we believe the company is likely to benefit from continuing investment in metals and mining sector and favourable development in prices. Our Metals and Mining team forecasts that in the medium term, copper prices may potentially double from current levels. Second, we believe that as the availability of high grade mines decreases and mining companies are required to develop low grade sites, there is likely to be increased demand for OT's proprietary technologies which allow more metal to be extracted per pound of ore. Third, we expect the company to ramp up its Services business to deliver €250-300mn in recurring annual revenues. The company acquired Larox Corporation in 2009 to expand its service offering and said it would look to make some similar bolt-on acquisitions over 2010. Fourth, OT's business model is asset light, driven by a significant level of prepayments and the sale or transfer of proprietary technology, with the business delivering 44.9% ROCE over the last four years, against a 21.2% average in the European Energy Efficiency sector. Finally, we note that the company has extended its technology applications beyond the Mining industry, with expansion into energy and water treatment, representing future opportunities where the company has already secured orders. On valuation, Outotec trades on a 2010E EV/EBIT of 12.7x against a solar sector average of 13.7x and a renewables sector average of 15.4x. We increase our price target to €32.50 from €30.

### Phoenix Solar (1-Overweight, €50 PT, 16.3% upside potential)

Phoenix Solar is a our preferred name in the mid-cap solar sector given the company's strong operational track record, favourable position as a technology neutral downstream player and a flexible procurement strategy. In our view, Phoenix benefits from a favourable track record in construction of solar power plants which has allowed the company to secure development contracts and funding for projects in Germany, Italy and France. Second, Phoenix's technology neutral, diversified approach to module sourcing has allowed the company to leverage price declines over 2009 and product mix to maximise project profitability. Third, we believe that the company's expertise in remote monitoring and maintenance of solar projects is likely to deliver potential for Phoenix to secure contracts for operating third-party projects which provides a recurring revenue source. Fourth, we believe the company may seek to raise additional capital over the course of 2010. We would view this as a positive development, as it would allow Phoenix to significantly scale its balance sheet capabilities to construct additional projects at the same time. On valuation, Phoenix trades on a 2010E EV/EBIT of 7.8x against a solar sector average of 12.2x and a renewables sector average of 15.4x. We increase our price target to €50 from €43.

We highlight below a summary valuation of the Renewables sector:

# Valuation summary

	EV/Sales					EV/EBITDA						EV/EBIT				PE								
	Bar	clays Ca	pital	(	Consensu	S	Bar	clays Cap	oital	C	on sens u	S	Bar	clays Cap	oital	Cons	ensus		Bar	clays Ca	pital	(	Consensu	IS
	2009e	2010e	2011e	2009e	2010e	2011e	2009e	2010e	2011e	2009e	2010e	2011e	2009e	2010e	2011e	2009e	2010e	2011e	2009e	2010e	2011e	2009e	2010e	2011e
Acciona	1.5x	1.5x	1.5x	2.0x	2.0x	1.9x	10.5x	9.1x	8.6x	13.3x	10.9x	9.5x	22.8x	18.7x	18.1x	28.0x	19.8x	16.3x	4.6x	20.6x	19.2x	33.4x	23.9x	18.0x
Clipper	0.9x	1.3x	0.8x	0.4x	0.3x	0.3x	na	na	13.7x	na	12.2x	4.5x	na	na	18.1x	na	13.6x	6.5x	na	na	11.3x	na	31.4x	13.3x
Gamesa	1.0x	0.8x	0.7x	1.0x	1.0x	0.8x	8.3x	6.3x	4.6x	8.2x	7.4x	5.8x	16.1x	11.2x	7.2x	14.7x	13.0x	9.4x	18.7x	14.0x	9.3x	20.4x	16.6x	12.5x
Hansen	1.7x	1.4x	1.1x	1.7x	1.3x	1.0x	16.9x	9.1x	6.4x	16.2x	8.9x	5.8x	44.1x	14.2x	8.7x	43.0x	14.7x	8.1x	319.4x	17.8x	9.3x	87.1x	19.6x	9.9x
Nordex	0.7x	0.7x	0.7x	0.6x	0.6x	0.5x	14.6x	13.0x	11.5x	12.0x	9.6x	6.6x	21.7x	17.9x	14.9x	18.0x	13.9x	8.8x	32.2x	23.7x	17.5x	34.1x	22.7x	14.0x
Repower	1.1x	0.9x	0.8x	0.8x	0.9x	0.7x	13.4x	11.3x	9.7x	12.5x	12.2x	9.8x	16.5x	12.8x	11.8x	15.2x	14.5x	11.5x	28.7x	23.0x	19.4x	22.7x	15.7x	12.3x
Vestas	1.3x	1.3x	0.9x	1.3x	1.2x	1.0x	9.4x	8.5x	6.3x	8.9x	8.6x	6.5x	11.3x	10.3x	7.4x	11.3x	11.5x	8.3x	15.6x	13.9x	9.9x	16.2x	16.2x	12.0x
Terna Energy	9.4x	9.2x	6.5x	9.0x	9.2x	7.7x	25.7x	23.7x	14.8x	20.7x	18.4x	13.0x	29.8x	27.2x	16.7x	26.7x	23.9x	16.8x	39.0x	36.4x	21.3x	35.2x	31.4x	20.1x
EDF Energies Nouvelles	5.5x	5.0x	5.1x	5.1x	5.0x	4.9x	19.5x	16.9x	13.7x	16.6x	14.6x	12.5x	29.1x	25.7x	20.3x	25.1x	21.9x	18.8x	40.0x	46.5x	27.3x	35.0x	27.5x	21.4x
EDP Renovaveis	11.4x	8.8x	8.4x	11.8x	10.2x	8.8x	15.0x	11.7x	11.3x	15.8x	13.3x	11.1x	28.4x	22.9x	21.9x	33.1x	26.1x	21.2x	39.4x	28.6x	25.2x	48.9x	36.0x	27.1x
Greentech Energy	22.9x	8.6x	6.4x	20.3x	13.4x	6.2x	na	20.3x	14.6x	57.4x	25.1x	9.2x	na	21.6x	15.9x	na	44.8x	11.7x	na	37.0x	17.3x	na	46.4x	14.7x
Iberdrola Renovables	7.0x	6.5x	6.1x	8.6x	7.8x	7.1x	12.0x	10.8x	9.6x	14.2x	12.6x	11.1x	20.7x	17.8x	15.1x	26.1x	22.2x	19.7x	33.6x	26.5x	22.3x	37.8x	30.4x	26.2x
Theolia	1.6x	2.8x	2.4x	1.9x	2.1x	1.8x	20.0x	27.1x	21.9x	12.3x	12.4x	11.9x	48.4x	54.6x	46.4x	53.6x	30.4x	28.1x	na	na	na	na	na	418.1x
Suzlon	1.4x	1.1x	0.9x	1.1x	1.0x	0.8x	14.6x	9.2x	7.9x	12.4x	9.8x	7.6x	22.4x	12.1x	10.1x	16.4x	11.9x	9.9x	120.1x	15.3x	11.3x	83.7x	20.0x	12.4x
Wind (MV Weighted Average)	4.7x	4.1x	3.8x	5.3x	4.8x	4.2x	12.4x	10.6x	9.1x	13.0x	11.4x	9.4x	21.0x	16.9x	14.4x	23.0x	18.9x	15.4x	24.4x	23.5x	18.4x	30.3x	25.4x	19.7x
Wind (Simple Average)	4.8x	3.6x	3.0x	4.7x	4.0x	3.1x	15.0x	13.6x	11.0x	16.9x	12.6x	8.9x	25.9x	20.5x	16.6x	25.9x	20.2x	13.9x	62.8x	25.3x	17.0x	41.3x	26.0x	45.1x
Centrotherm	1.8x	1.7x	1.4x	1.5x	1.4x	1.2x	13.5x	11.6x	9.7x	10.8x	9.8x	8.4x	18.8x	14.0x	11.3x	14.5x	12.3x	10.2x	26.0x	18.6x	15.3x	24.8x	19.6x	16.7x
Coneray	1.2x	1.1x	1.1x	0.9x	0.8x	0.7x	na	18.6x	13.1x	na	29.0x	12.4x	na	50.6x	22.9x	na	na	28.6x	na	na	81.3x	na	na	727.0x
Manz Automation	3.3x	2.1x	1.6x	2.8x	1.7x	1.3x	na	17.0x	14.5x	na	15.7x	8.9x	na	32.9x	22.5x	na	29.2x	12.4x	na	50.1x	33.4x	na	51.2x	23.4x
Meyer Burger	2.1x	1.9x	1.3x	2.0x	1.5x	1.1x	15.3x	13.3x	8.6x	15.8x	10.6x	6.4x	29.1x	19.5x	10.5x	23.8x	14.9x	8.0x	40.1x	27.4x	15.3x	30.8x	28.0x	16.7x
Phoenix Solar	0.6x	0.5x	0.4x	0.6x	0.5x	0.4x	18.6x	7.7x	6.1x	22.9x	8.4x	7.3x	19.1x	7.8x	6.2x	25.1x	8.5x	7.3x	27.4x	11.4x	8.9x	36.7x	12.7x	10.6x
PV Crystalox	1.2x	1.2x	1.2x	0.9x	1.0x	1.0x	4.9x	5.3x	4.6x	3.8x	5.9x	5.4x	5.8x	6.5x	5.7x	4.3x	8.1x	6.1x	9.2x	10.4x	8.7x	9.0x	13.6x	10.0x
Q-Cells	1.6x	1.4x	1.1x	1.6x	1.4x	1.2x	na	16.4x	11.7x	na	11.6x	8.4x	na	72.0x	25.7x	na	28.7x	15.1x	na	90.7x	29.0x	na	63.4x	21.9x
Renewable Energy Corp.	4.1x	3.1x	2.2x	4.5x	3.1x	2.3x	18.5x	9.9x	6.9x	20.3x	9.7x	6.4x	na	17.5x	10.1x	220.7x	18.1x	10.3x	na	19.2x	10.5x	na	21.8x	12.1x
Roth & Rau	1.7x	1.5x	1.2x	1.7x	1.5x	1.2x	10.6x	10.0x	8.6x	14.1x	11.8x	9.0x	21.5x	16.6x	12.5x	20.6x	17.1x	12.2x	29.0x	24.0x	19.3x	35.0x	28.5x	21.7x
SMA Solar	3.5x	2.9x	2.2x	3.4x	2.9x	2.4x	13.8x	11.5x	9.1x	13.3x	11.8x	10.2x	15.0x	12.5x	9.7x	14.2x	13.1x	11.4x	22.8x	19.7x	16.0x	22.0x	19.6x	17.4x
Solar Millennium	3.0x	2.1x	1.4x	2.4x	2.0x	1.5x	12.6x	8.7x	6.4x	10.9x	9.6x	8.2x	13.7x	10.3x	8.2x	11.3x	10.2x	9.0x	18.3x	14.3x	10.3x	19.4x	14.6x	12.5x
Solaria Energia	2.2x	1.9x	1.8x	1.8x	1.8x	1.8x	11.6x	8.2x	13.9x	9.1x	10.9x	12.6x	14.9x	19.1x	20.9x	12.1x	16.1x	23.8x	14.2x	17.1x	13.4x	19.1x	23.6x	32.8x
SolarWorld	1.9x	1.9x	1.8x	1.9x	1.7x	1.5x	6.8x	6.1x	5.0x	7.8x	8.1x	7.2x	11.4x	10.6x	10.0x	10.9x	12.1x	10.6x	19.2x	16.8x	15.4x	18.5x	17.5x	14.8x
Solon	1.2x	1.1x	0.9x	1.2x	0.9x	0.7x	na	20.6x	12.5x	na	19.4x	8.9x	na	183.4x	22.8x	na	94.7x	15.3x	na	na	65.6x	na	na	14.7x
Wacker	1.7x	1.7x	1.7x	1.8x	1.6x	1.4x	9.0x	6.4x	5.9x	9.4x	6.4x	5.2x	31.4x	10.7x	9.3x	29.3x	11.2x	8.5x	747.7x	15.2x	12.6x	56.2x	15.7x	11.7x
Solar (MV Weighted Average)	2.5x	2.1x	1.8x	2.5x	2.0x	1.7x	12.1x	9.4x	7.5x	12.5x	9.5x	7.3x	22.3x	12.2x	11.2x	16.8x	14.2x	10.6x	13.3x	16.3x	14.2x	13.1x	17.3x	14.5x
Solar (Simple Average)	2.1x	1.7x	1.4x	1.9x	1.6x	1.3x	12.3x	11.4x	9.1x	12.6x	11.9x	8.3x	18.1x	32.3x	13.9x	35.2x	21.0x	12.6x	95.4x	25.8x	23.7x	27.2x	25.4x	64.3x
Abengoa	1.6x	1.3x	1.2x	1.5x	1.4x	1.2x	11.2x	9.8x	9.0x	9.9x	9.2x	7.7x	16.5x	14.1x	12.8x	14.5x	13.5x	11.1x	12.2x	8.8x	6.9x	13.7x	12.3x	9.3x
AMG	0.8x	0.8x	0.7x	0.5x	0.5x	0.4x	10.8x	9.6x 8.0x	6.9x	6.4x	5.8x	7.7x 4.4x	25.6x	14.7x	11.7x	14.5x	10.3x	6.5x	na na	0.0x 14.4x	9.3x	na	21.8x	10.0x
Outotec	1.2x	1.1x	1.0x	0.8x	1.0x	0.9x	12.0x	10.5x	8.3x	10.2x	13.3x	10.3x	14.7x	12.7x	9.8x	12.0x	16.3x	12.1x	23.5x	21.3x	17.3x	23.5x	26.1x	20.1x
Energy Eff. (MV Weighted Average)	1.4x 1.2x	1.2x 1.1x	1.1x 1.0x	1.2x 0.9x	1.2x 1.0x	1.1x 0.9x	11.5x 11.3x	9.9x 9.4x	8.6x	9.8x 8.9x	10.3x 9.4x	8.3x 7.5x	16.6x 19.0x	13.7x 13.8x	11.8x	13.6x 13.6x	14.2x 13.4x	11.1x 9.9x	37.6x 17.9x	13.3x	10.5x	39.8x	17.5x 20.1x	12.9x 13.1x
Energy Eff. (Simple Average)									8.1x						11.5x					14.8x	11.2x	18.6x		
Renewables (MV Weighted Average)	3.9x	3.4x	3.1x	4.3x	3.8x	3.4x	12.3x	10.2x	8.6x	12.7x	10.8x	8.8x	21.0x	15.4x	13.4x	20.9x	17.4x	13.9x	21.7x	21.0x	16.9x	26.5x	22.8x	17.9x
Renewables (Simple Average)	3.2x	2.5x	2.1x	3.0x	2.6x	2.0x	13.4x	12.1x	9.9x	14.3x	12.0x	8.5x	21.9x	25.6x	14.9x	28.4x	19.9x	12.9x	/3.1X	24.4x	19.6x	33.2x	25.1x	51.1x

Source: Barclays Capital (Priced at close on 11 January 2010)

# Recommendation changes

In addition to our key stock ideas for 2010, we make a number of recommendation changes which we outline below.

# **Recommendation changes**

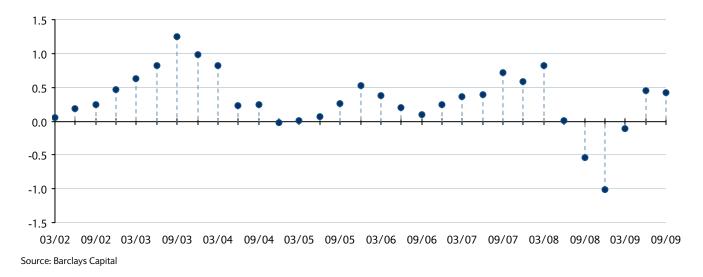
Company		Recomm	endation	Pr	ice tar	get	Sh price	Up/downside
		Old	New		Old	New		
Suzlon	<b>↑</b>	2-EW	1-OW	INR	55.0	125.0	94.8	31.9%
PV Crystalox	<b>↑</b>	3-UW	1-OW	GBP	0.60	0.80	0.68	17.6%
Abengoa	<b>↑</b>	2-EW	1-OW	€	20.0	28.5	23.3	22.3%
Iberdrola Renovables	<b>↑</b>	2-EW	1-OW	€	3.30	3.95	3.43	15.2%
Gamesa	$\downarrow$	1-OW	2-EW	€	19.0	14.0	12.6	11.1%
EDF EN	<b>↑</b>	3-UW	2-EW	€	26.0	36.0	38.5	-6.5%

Source: Barclays Capital (Share prices at close on 11 January 2010)

# Barclays Capital Renewables Health Outlook

Our Barclays Capital Renewables Health Outlook ("BCRHO") brings together our proprietary lead indicator for wind and solar demand globally for the next 6-12 months. With our back testing from 2001, we believe this combination of raw fundamental data overlayed with policy changes in major countries of renewable demand provides us with confidence on the demand outlook for wind and solar installations. By the end of 2008, the indicator almost entered a period of significant contraction, outlining a decline in installations during the first half of 2009. The indicator began to turn positive over 2009 and entered a period of expansion by the end of the second quarter, driven by reduced interest rates, an increase in electricity prices and favourable policy support in countries such as Germany, US and China. At the end of the third quarter, the indicator remained positive, the outlook for installations remains positive. However the magnitude of the indicator has decreased to 0.66 from 0.82 in the second quarter of 2009 primarily due to lack of additional policy support, in particular uncertainty around German feed-in tariffs and the US Federal RPS.

### **Barclays Capital Renewables Health Outlook**



# **European Wind**

The question we believe will face European wind companies this year will be whether the demand recovery will be a "V" or "U" curve. While over the course of 2009, financial returns for investment in wind projects remained attractive, the propensity to conclude PPA agreements remained patchy at best. This was a result of insecurity around power demand expectations, limited availability of funding and regulatory uncertainty. Taken together, these factors led to a general lethargic performance of the wind sector in 2009 in comparison to prior years. The outlook for this year turns towards three main areas: the outlook for regulation, turbine pricing and operating profit margins for manufacturers.

For regulation, we believe the trend is likely to be broadly positive in Europe, where countries are legally bound to reach 20% of power generation by 2020. For countries such as Germany, Spain and Denmark, which have 7%, 13% and 19% of power generation from wind already, a significant portion is likely to be met by additional onshore wind projects under development. Policy support in the recent years has generally recognised the

importance of stimulating investment in green projects. For other countries, such as the United Kingdom, which has approximately 800MW of onshore wind capacity are likely to see a significant portion of future wind installation made up by offshore wind projects over the next 4-7 years. Within the US, the regulatory environment has been supported by the investment tax credit becoming available to wind projects, though utilities and IPPs have shown reluctance to agree and confirm power purchase agreements which reflects uncertainty on the outlook of power demand. However, progress towards a federal renewable portfolio standard remains elusive, and may not now be contemplated until after mid-term elections. Given the emotive nature towards regulation of renewable power generation and the state of the US trade and federal deficits, a federal RPS may not feature highly on the policy agenda for the next 12 months, though we continue to monitor this from our channel checks. Within Asia, new regulation from China and India continues to be supportive, as feed-in tariffs and targets are likely to favour wind over other forms of power generation given the scale and cost of energy advantages. We outline below a summary of policy developments for major wind markets:

### Recent regulatory changes

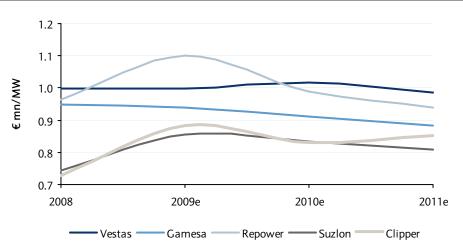
Country	Recent regulatory change	
US	American Recovery Act: Production Tax Credits (PTC) extended through 2012 with an option to elect a 30% Investment Tax Credit (ITC) in lieu of the PTC providing a cash grant by the Secretary of Treasury for projects placed in service during 2009 and 2010, or the construction of which begin during 2009 and 2010. Grants are to be paid within 60 days of commissioning	+
China	<b>Wind feed-in tariffs:</b> China introduced a feed-in tariff (RMB 0.51-0.61/kWh) in July 2009 to replace old central concession binding process. Grid operators have since December 2009 to grant access and buy renewable electricity generated by wind projects.	+
India	<b>Generation based Incentive:</b> The Indian government has announced generation-based incentive (GBI) of INR 50p/kWh of electricity to promote wind power producers. (December 2009)	+
Australia	<b>Renewable Energy Target (RET).</b> Australia passed a law in August 2009 requiring of 20% electricity to be sourced from Renewables sources by 2020	+
Canada	Ontario Green Energy and Green Economy Act: implementation of a 20 year feed-in tariff for wind of US\$13c/kWh for onshore and US\$19c/kWh offshore (September 2009)	+
Spain	<b>Register of Pre-Assignment:</b> required since May 2009, projects to file application to be included in the Ministry of Industry register to receive existing feed-in tariff in place	-

Source: Barclays Capital

For turbine pricing, a number of moving parts are clear for the coming year – demand has softened and while many contracts in 2009 were agreed in 2008, this year looks to have substantially more capacity that is as yet not firm for some companies. This could contribute towards downward momentum for pricing. Turbine manufacturers are responding to this momentum in different ways. Those businesses that are part of larger conglomerates or which demand may not be filled for this year have agreed to pricing concessions (GE, Siemens and Repower are examples). Other names which believe that as demand strengthens and their global service delivery and turbine options will become firm are still seeking to protect pricing (Vestas, Gamesa and Suzlon fall into this category). In addition, from a structural perspective, larger turbines tend to hold a higher price per MW, so although in some cases price falls may take place, as the product mix evolves the overall price per MW may be more stable. Also, new turbine contracts include some service

element which depending upon how revenues are accounted for at different turbine companies. We outline below our price expectations for turbine manufacturers:

### Turbine pricing outlook



Source: Company data, Barclays Capital

Operating profit performances for turbine manufacturers are to be determined by pricing, capacity utilisation and supply chain efficiency. Even though turbine manufacturers may see pricing remain stable or decline at a headline level, if raw material costs are passed on, capacity utilisation and supply chain performance improves, and sales mix continues to improve towards larger turbine, we believe operating margins for turbine manufacturers may not decline materially. However, for this to hold, turbine manufacturers need to restrict or avoid deep discounts to existing and new turbines.

# **European Solar**

The European solar market has a number of issues to consider for 2010. With the outlook for demand improving from a number of countries in addition to Germany, with scope for global PV demand to be between 7-9 GW this year, up from the expected 6-6.5 GW in 2009, European solar companies look set to be better placed than in 2009, when expectations for demand and pricing were significantly more uncertain. With respect to pricing, the expectation for 2010 is for a decline of between 10-15% this year, dependent upon regulatory changes in major solar PV markets such as Germany, which is expected to become clear between the second and third quarter of the year.

Downstream in this pricing environment, as the development looks set to be steadier over the year and downstream companies more cautious around holding inventory, we expect to see fewer inventory write downs in this segment of the sector. As installations increase and returns more favourable, downstream businesses such as PS4 should be well placed to benefit. Companies with exposure to revenues from Germany given the strength in volumes expected in the first half of the calendar year should also be well placed and these companies are SMA Solar, Phoenix Solar, SolarWorld, Conergy and Solon.

Mid stream companies such as QCE are likely to find ongoing challenges as in this segment companies struggle to lower costs while expanding new facilities that can compete with low

cost entrants from Asia and at the same time expanding downstream operations which mitigate their reliance on third-party customers. With cell costs expected this year in the region of  $\in 1.0-1.1$ /Wp against  $\in 1.2-1.3$ /Wp in 2009, we believe these companies are likely to consider write downs of tangible and intangible assets on their balance sheet as cell equipment lines are written down aggressively at the end of the calendar year.

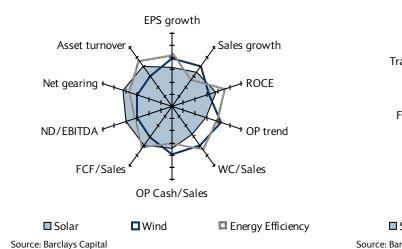
In the upstream segment, including wafer and polysilicon producers, the outlook remains more favourable for polysilicon manufacturers than for wafer manufacturers who are likely to see renegotiation discussions ongoing this year. These discussions are likely to involve both volumes and pricing, and in the current cost position European companies may decide to continue relationships at price levels that remain uncompetitive from a full economic cost perspective but remain cash generative. Over time, this strategy may be in the interest of shareholders if new production facilities can be brought on line that leads to operating margins returning. We note in particular many newer entrants are subject to different accounting regulations and standards and in some cases have not begun to depreciate assets leading to a different perceived cost structure. Over time, these market dynamics may not be sustainable for either party.

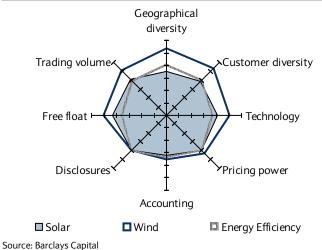
# Benchmarking

We outline below a summary of our European Benchmarking analysis. This summary reviews companies in our coverage universe and assigns scores based upon financial, competitive and investability scores with relevant rankings as a result. We assign 75% for financial metrics (which include ROCE, cash flow and sales growth), 15% for competitive positioning (including technology leadership and customer/geographic diversity) and 10% for investability (including disclosure, free float and average daily volume). Across the renewable sector, wind companies generally fared better across the sales, operating profit trend and cashflow metrics. Solar companies performed more strongly in asset turnover and ROCE metrics, reflecting the general business model of the sector. Across the competitive positioning and investability metrics, wind exceeded solar in many of the categories defined. Despite these general comments, the top three companies from the European Renewables sector include one from each of our subsectors (all 1-Overweight), Vestas (Wind), SMA (Solar) and Outotec (Energy Efficiency). The bottom three companies in this screen were Solon (Solar, 3-UW), Q-cells (Solar, 2-EW) and Acciona (Wind, 2-EW).

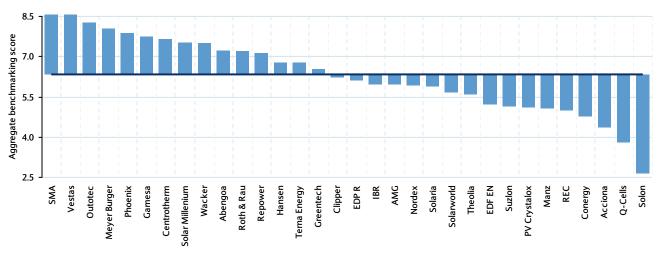
### Financial benchmarking

### Competitive position and investability benchmark





### Barclays Capital European Renewables Benchmarking

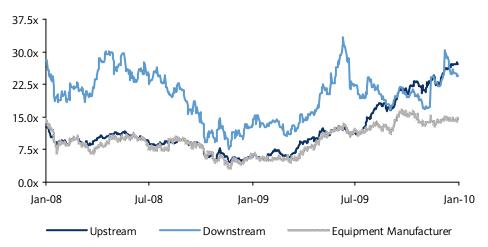


Source: Barclays Capital

# Valuation

We outline below the development for the solar and wind sector since January 2008. We would highlight two key points. First, downstream companies now trade at a 12% premium to the upstream segment, which we believe highlights the increasingly favourable exposure to volume and price developments for 2010-2011. Solar equipment manufacturing companies however continue to trade at a 52% discount, which averaged 25% over 2009, as concerns around earnings and new order intake and the risk of deferrals continued to be apparent. We expect the discount to narrow over 2010 as order intake grows from new planned capacity in the later part of 2010 and early 2011. Second, wind farm operators traded on average at a 52% premium to the turbine manufacturers in 2008. This premium reached a 13% low on 1 September 2008 which we believe reflected a lower valuation applied to the pipeline assets which wind farm operators held rights over.

12M fw. EV/EBIT: Solar Upstream, Downstream and Equipment Manufacturer



Source: FactSet, Bloomberg, Barclays Capital

12M fw. EV/EBIT: Wind turbine supply chain, turbine manufacturers and operators



Source: FactSet, Bloomberg, Barclays Capital

# **EUROPEAN RENEWABLES – CONVERTIBLES**

We outline below published comments from our European Convertibles research team:

### Theolia 2% 2014

# Potential upside following convertible restructuring, if successful and if the share price holds

Theolia's convertible was last indicated at a price of €16.00, versus a nominal on the bond of €20.00. The company announced on 29 December that 65.5% of bondholders have approved its proposal to restructure its €240mn convertible bond currently due in 2014 with a 2012 put date. The changes are subject to bondholder and shareholder meetings, and include extension of the put date to 1 January 2015 and reduction of the put price, payment in 2H10 of up to €60mn distributed pro rata, an increased conversion ratio, and an increase of the coupon. The potential early repayment, new put price and conversion ratio would depend on the amount raised via a proposed capital increase.

Our view is that the changes represent a substantial incentive for holders to convert prior to 31 December 2013. After this date, the conversion ratio would drop to 80% of its newly enhanced level and we calculate that at the current share price parity would be some way above the corresponding new put price. Taking this together with the fillip provided by the potential early repayment provides potential upside from the current market price of the convertible. Indeed, combined these would total c.€25-28 per bond, assuming between €45mn and €100mn of the rights issue is successful and the current share price is maintained. We highlight, however, that at a share price of c.€1.85 parity would be below the new put price. Aside from the possibility of further share price falls, the key risk factors for convertible holders, in our view, are the possibility that the rights issue does not succeed and also the overall stake in the company that the increased conversion ratio represents for bondholders. We also note the already stretched liquidity of the stock borrow market in Theolia shares, which hampers investors' ability to hedge.

### Solon 1.375% 2012

### High yield opportunity, but wary of repayment risk and credit-equity correlation

Solon's convertible bond is currently distressed, priced at 37.8, equivalent to a 47% yield to maturity. This makes it the third-highest yielding bond in our EMEA convertible universe. For investors who believe that the company's prospects are sound and that it will satisfactorily repay the bond, the convertible therefore represents an attractive opportunity. Set against this is the relatively low 3.6% annual income yield owing to the 1.375% coupon. Furthermore, although the embedded conversion option is sufficiently far out of the money to have negligible value, we have credit-correlation concerns given our fundamental analysts' 3-Underweight stock rating and  $\epsilon$ 6.5 price target.

# Q-Cells 1.375% 2012 and 5.75% 2014

### Income advantage in a flat scenario and expect credit to recover if equity rises

Q-Cells has two convertible bonds outstanding. We consider the 2012 bond effectively as a straight bond owing to the lack of value in the conversion option: parity is only 17.6, hence the stock would need to rise by 5.7x to move into the money. At a price of 62.1, the bond yields 27% to maturity and has an annual income yield of 2.2% from its coupon. We caution that the yield to maturity need not be realised in a linear fashion, rather the price/yield of the bond can be subject to jumps and high volatility, as observed since the bond was issued in Feb '07.

The 2014 convertible has a higher cash price at 70.6 and a lower yield to maturity of 16%. Given its 5.75% coupon, however, the income yield is much greater at 8.1%. Also as distinct from the 2012 bond, the equity option has some value, with parity at 51.3. As such, were the share price to recover sufficiently then the value of the shares underlying the bond could outstrip the price. We would also expect there to be a significant degree of correlation on the credit within a recovery scenario, which could act as a secondary stimulant to the price of the convertible. We caution, however, that such correlation also applies on the downside. Furthermore, our fundamental analysts' 2-Equal Weight stock rating and €10.5 price target do not point to promising prospects for such a recovery. This said, in a flattish or negative equity scenario, we expect the convertible to outperform owing to its income advantage.

# Renewable Energy Corp (REC) 6.5% 2014

### Income kicker but may not be enough to compensate for lower participation

The convertible is subordinated and as such confers a weaker bond floor to holders than if it represented a senior claim. To compensate for this, however, the convertible pays a 6.5% coupon quarterly which at the current market price of 104.4 provides an annual income yield of 6.2%. With parity at 79.3, this indicates that the premium of the bond price above parity would be recouped in four years, before maturity and during which time investors would have seniority to the equity. Although the convertible can be called by the issuer in three years time, this would only occur if parity rises to 150. As such, the convertible offers investors exposure to the equity with significant annual income. Given our equity analysts' 1-Overweight stock rating, however, investors may consider this insufficient compensation for the reduced participation, and prefer to hold the equity. For example, at our NOK70 price target, parity would be 131.9, which is 26% above the current bond price; for a return of 33% including coupons. This compares poorly to the 66% increase in the underlying share price. However, we would expect some price-above-parity premium to be retained, boosting bond's return closer to the 66% gain in the shares. By way of illustration, we calculate that the convertible has reflected an average weekly delta to parity moves over the past month of 80%.

# Suzlon 0% 2012 and 7.5% 2012

### 7.5% June 2012 convertible is an attractive equity alternative

Following an incentive offer in April to holders of its \$500mn aggregate of zero-coupon convertibles due June and October 2012 in return for approval to amend the financial covenants of the bonds, Suzlon issued \$35.6mn of a 7.5% June 2012 convertible and \$20.8mn of a 7.5% October 2012 convertible. Following the offer there is \$211.3mn of the 0% June 2012 convertible and \$121.4mn of the 0% October 2012 bond outstanding. We see active trading in all bar the 7.5% October 2012 bond due to its small size. The zerocoupon convertibles are both far out-of the money with parity (the value of the underlying shares) in the low 20s. These bonds offer investors credit-like high yield exposure to Suzlon with a yield to maturity of approximately 16%, albeit with zero coupon income and negligible conversion option value. In contrast the 7.5% June 2012 bond offers investors far greater equity participation: it is currently priced at 134.0 versus parity of 132.2, equating to a 1.4% premium with a theoretical delta of 64%. We view this bond as an attractive equity alternative given the low premium and the 7.5% coupon (5.6% income yield) versus the current dividend yield of 0.5% on the shares. Based on a Rs125 share price target we infer that on a 12-month horizon the 7.5% June 2012 bond implies a 30% return, compared to a 34% return on the stock, based on the current share price of Rs93.3. However the convertible offers some downside protection with a bond floor of 124.5. In addition, the bond offers both dividend protection and change of control protection.

# RECOMMENDATION CHANGES

### Recommendation changes

Company	Recomm	endation	Price	target	Sh price (	Up/downside	nside 2010e EPS			2011e EPS		
	Old	New					Old	New	%	Old	New	%
PV Crystalox	3-UW	1-OW	GBP	0.80	0.68	17.6%	0.08	0.07	-23.1%	0.10	0.08	- 20.1%
Suzlon	2-EW	1-OW	INR	125.0	94.8	31.9%	5.98	5.64	-5.6%	6.33	7.39	16.7%
Iberdrola Renovables	2-EW	1-OW	€	3.95	3.43	15.2%	0.11	0.13	21.0%	0.11	0.15	37.5%
Abengoa	2-EW	1-OW	€	28.5	23.3	22.3%	2.37	2.65	11.7%	3.35	3.35	0.1%
EDF EN	3-UW	2-EW	€	36.0	38.5	-6.5%	0.83	0.83	0.0%	1.41	1.41	0.0%
Gamesa	1-OW	2-EW	€	14.0	12.6	11.1%	1.28	0.91	-29.1%	1.63	1.37	-16.2%

Source: FactSet, Barclays Capital (Share prices at close on 11 January 2010)

# EDF Energies Nouvelles upgrade to 2-Equal Weight (from 3-UW)

This upgrade reflects our view that tier one wind farm operators which have access to capital markets and are able to demonstrate a track record, are likely to outperform tier two wind farm developers in the constrained operating environment. In addition, we believe the positive regulatory environment in France is likely to be favourable to renewable power operators, particularly EEN, given their domestic operating experience. We forecast for 2010 an installed capacity of 2,736MW, rising to 3,036MW in 2011. Third, EEN is the first renewable power generator to expand into solar, with the company targeting 500MW capacity by 2012, and as this source of revenue expands, adds diversification benefit to earnings for the company. We upgrade to 2-Equal Weight (against EDPR and IBR, where we are both 1-Overweight) to reflect the premium valuation EEN currently trades at (16.9x 2010E EV/EBITDA against 11.3x average for EDPR and IBR) and the lower liquidity and free float associated with the company.

# Gamesa downgrade to 2-Equal Weight (from 1-OW)

We maintain our long-term positive view on Gamesa but downgrade our recommendation 2-Equal Weight from our long held 1-Overweight recommendation. The downgrade is a result of a number of factors. First, the recent change in management we believe is one that is likely to lead to a period of transition until short-to medium-term goals are reassessed. This includes both the approach to customers, turbine development and international expansion. Second, the revised agreement for IBR is likely to lead to a deferred sell down of Gamesa's European wind farm assets, and also may be the subject of additional delays or deferrals. Against the original agreement announced in 2008, which called for a valuation of their assets at the end of 2011, this catalyst is now pushed further out and is still to be linked to be roll out of their joint development assets. Moreover, in the current environment, we do not see near-term likelihood that development assets in Asia or the US will see a transaction consummated in the near term. Third, the outlook for full year 2009 may be weaker than expected following the departure late last year of senior operational management

in the US. Fourth, the company is launching its new G-10 turbine, which although we view as positive, may lead to negative earnings surprises as new products in the industry can require additional upgrades and remediation work while units are entered into service. As we look towards the middle part of this calendar year, we will review our investment thesis on the basis of progress towards achieving 11% operating margins in 2011, securing new orders and accelerating the build out of the development pipeline. We continue to view Gamesa as a core holding in the European wind sector. On valuation, Gamesa trades on a 2010E EV/EBIT of 11.2x against the renewable sector at 15.4x.

# PV Crystalox upgrade to 1-Overweight (from 3-UW)

We upgrade PVCS from 3-Underweight to 1-Overweight to reflect three main developments. First, the company has successfully passed the ramp up phase of its polysilicon facility, which unlike Chinese and other solar companies, has not seen cost overruns or quality issues to date. We accept the risk that these issues may yet surface, but with operations stable and costs in line with management expectations made earlier in 2009, we believe the likelihood has diminished. This therefore limits risk to its balance sheet of consuming additional cash flow for any cost overruns to take the facility through to operation. Second, the company should begin to see some benefits from its customer base for 2010, with major conglomerates protected from liquidity and funding issues against smaller non-Japan Asian based customers. Over the course of the year, we expect to see flexibility on volumes and pricing to be rewarded with higher than market average price developments, reflecting the improved quality of wafers offered by companies against peers. Third, we believe that PVCS to be better positioned upstream than downstream operators given the broader higher barriers to entry in the space. While we believe these barriers will not remain for the medium term, over the course of the year, we believe the price and margin evolution to be more favourable. We expect shipments of 300MW in 2010 and 330MW in 2011, with an operating margin of 20% and 21%. At the current price, PVCS trades at a 2010E EV/EBIT of 6.5x against 15.4x for the renewables sector.

# Suzlon Energy upgrade to 1-Overweight (from 2-EW)

We upgrade Suzlon from 2-Equal Weight to 1-Overweight to reflect a number of factors. First, we believe the recent placing of Hansen provides the company additional financial flexibility by raising €325mn and provides the company a remaining stake worth €205mn. With this additional equity capital, this is likely to accelerate this year a complete acquisition of Repower which should significantly enhance the technology platform for the company to develop its international turbine range. Third, we believe the company is gaining market reputation with some major wind farm developers in Europe and the US, and is likely to be seen as a preferred partner to new Chinese entrants to the wind turbine space such as Sinovel and Goldwind, which are seen as more early stage with a less developed product and quality assurance methodology. We forecast Suzlon to ship approximately 2,100MW in FY 2010 and 2,625MW in 2011 and an operating margin of 6.1% and 11.0%. On our forecasts, Suzlon trades at a 2010E EV/EBIT of 12.1x against a wind sector average of 16.9x.

# Iberdrola Renovables upgrade to 1-Overweight (from 2-EW)

We upgrade Iberdrola Renovables to 1-Overweight to reflect the company's robust project pipeline, exposure to the US market and favourable turbine supply agreements. Following the pre-registry of wind projects in Spain, IBR secured some 1,175MW of capacity to be installed under the favourable RD 661/2007. We believe this provides visibility in terms of projects in Spain until the end of 2012. In the US, IBR's diversified pipeline has allowed the company to focus project development in regions which offer scope for favourable PPA terms driven by state level RPS requirements including western, mid-continent and north eastern US. In addition, the company has been able to secure approximately €550mn in cash grants from the DoE. Together with a US\$2bn bond issue from Iberdrola dedicated to renewables investment in North America, we believe this is likely to provide liquidity to finance an additional 1.4GW of projects in the US.

In terms of turbine supply, IBR benefits from a long-term supply agreement with Gamesa which we believe allows the company to procure equipment at relatively favourable pricing and contractual terms compared to smaller wind farm developers. We also note that in June 2009, the company announced a fixed price electricity sale agreement in Spain, which we believe hedges the company's exposure to fluctuating power prices in the country. We increase our 2010 and 2011 Net Profit forecasts by 21% and 37% to reflect reduced operational expenses/MW and a favourable financing structure. On valuation, IBR trades on a 2010E EV/EBITDA of 10.8x against a wind sector average of 10.6x. In the medium term, we believe the company is likely to be able to trade at a premium to the sector average. We increase our price target to €3.95 (from €3.30).

# Abengoa upgrade to 1-Overweight (from 2-EW)

We upgrade Abengoa to 1-Overweight to reflect our belief that the company is likely to benefit from the forecast growth in CSP projects over the next two to three years. Abengoa has developed a strong track record in solar thermal project construction with 31MW of capacity in operation and an additional 150 under construction in Spain. In addition, the company secured pre-registration for 13 projects in Spain under RD 661/2007 which we believe delivers significant visibility for projects constructed in the country until 2013. In the US, over 2009, the company signed PPAs for some 500MW of projects. Given its operational track record and strong balance sheet, we expect the company to sign additional PPAs over this year. Like S2M, Abengoa is also part of the Desertec initiative, which we believe positions the company favourably in terms of securing projects in the North African region.

We also draw attention to Abengoa's construction business where the company is involved in developing concession projects, primarily transmission lines. Given the company's strategy to maintain ownership of transmission lines, ABG benefits from recurring cash flows over the 30 year project life. We note that the company's exposure to Biofuels limits margin potential at the group level. However, we believe that unlike its peers in the industry, given a global presence in key markets of Europe, South and North America, the company is well positioned to access raw materials and end markets in a way to maintain positive margins in biofuels. We increase our 2010 and 2011 revenue forecasts by 11.0% and 8.7% respectively to reflect increased EPC activity in solar and transmissions and raise our price target to €28.5 (from €20.0).

# RECENT COMPANY VISITS

# Abengoa – Meeting with CFO

The focus for Abengoa at present is on the CSP business. Management highlighted it is considering a range of potential options to continue to strengthen its competitive position. In particular, the company envisages entering strategic partnerships in Spain, the US and the Middle East. While the US offers an attractive market opportunity, management cautioned that in addition to the availability of funding, development of projects is conditional on the availability of tax lease and loan guarantee program.

The company is positive on the medium-term outlook for the biofuels division and on ethanol in particular given positive development of oil and sugar prices. Abengoa anticipates volume to substantially grow in 2010 driven by capacity expansion coming on stream in the Netherlands and the US. In contrast, despite a relatively good performance of Befesa in a challenging environment in 2009, management retains a cautious view on the outlook for environmental services. The company has a committed and financed capex plan of €4.3bn over the next four years. On securing additional funding, management outlined that the high financing costs of the €300mn bond raising reflects the unrated and unsecured nature of the transactions. Management highlighted the deal opened a new source of financing. The company maintains a cautious balance sheet and liquidity approach and highlighted the significant cash flow visibility Abengoa enjoys from its CSP and Transmission businesses.

# Acciona - Meeting with IR

Acciona's growth strategy over 2010 remains on three key segments: power, infrastructure and water – with significant focus on renewables and sustainability. In CSP, the company expects to install some 50MW in Spain for 2009 with an additional 100MW for 2010 and 2011. In addition, the company expects to announce its strategy for the US market, both in terms of wind as well as solar during its strategic update in the first quarter of 2010. The company reiterated that Transport remains non-core despite an improvement in the overall environment. However, the company said it is not in discussions with any financial or strategic partners at present and management expects that a formal sale may only be announced in late 2010 or 2011.

On turbine pricing, management outlined that while ASPs continue to decline, the rate of price reduction has stabilised. In addition, the company continues to develop a 3MW turbine which is likely to be rolled out to third-party customers over 2010. On offshore wind farm development, management outlined that while the market remains promising it is likely to grow in the medium term (which means over the next five years). The company is also developing an offshore turbine although the timing of launch and size remain uncertain.

# EDF Energies Nouvelles - Meeting with IR

EDF Energies Nouvelles benefits from a favourable downstream business model in wind and solar given its robust project pipeline, access to financing and attractive supply contracts. On its solar business, management outlined that despite lower module ASPs, the company is less likely to revise its 2012 installation target of 500MWp. In addition, the focus markets for new installations are likely to be France and Italy. On the French market, management outlined that a proposed regionalisation coefficient which allows tariffs to be adjusted upwards for regions with lower sunshine hours is likely to deliver potential for increased installation activity in the country. In addition, the company is likely to scale installation activity in Italy given an improved permitting process and an attractive feed-in tariff structure.

The company continues to grow its wind capacity with focus on US, France, Greece, Poland and Italy. Management outlined that in the US, the company is primarily focusing on states which benefit from an RPS regulation such as California, Washington, Iowa, Minnesota and Indiana. On PPAs, management outlined that while prices have declined compared to 2008, the company has been able secure a much more favourable ASPs for turbines and on balance, project IRRs have remained largely stable. In addition, the company expects that the PPA market is likely to become increasingly competitive, in particular for projects to be completed in 2011 which may additionally suppress pricing. For the Italian and Polish markets, the company is actively looking to acquire additional projects from Greentech under the optionality agreement announced in 2009. In addition, the company commented that over the second half of 2009, turbine manufacturers have been less keen to sign long-term supply agreements at current prices given their view that ASPs are likely to increase in the second half of 2010.

# EDPR – Meeting with IR and CFO

Management outlined that the company is less likely to increase hedged power level to more than 50% of output given the current power curve forward rate. In addition, while the company's risk model has historically assumed that hedging is likely to take place only in Spain, management outlined that it may consider a similar approach in the US. On the US market, management commented that the company is less likely to increase output above the 600-700MW per year. On PPAs, the company outlined that while pricing has remained broadly unchanged, the approval processes for utilities is taking much longer. In addition, management highlighted that there are some 5.5GW of projects seeking PPAs at present and there is potential for some pressure on ASPs for such agreements in 2010.

On securing turbines, the company highlighted that it does not need any additional turbines for 2010, beyond the deliveries already contracted. However, management outlined that it is in negotiations with a number of turbine manufacturers for the period beyond 2012. In addition, the company highlighted that despite the present demand supply balance, pricing for turbines has remained broadly stable although management has been able to secure favourable service terms. Other key markets for the company include Brazil and the UK, but management expects accelerated build-out in both the regions to begin beyond 2013-14. We note that EDPR was awarded offshore projects with a total capacity of 1.3GW in the UK third round that was recently completed.

# Greentech – Meeting with CFO

Completing the Monte Grighine project is the main focus for management at present. Nordex is supplying turbines for the project and has increased operational resources to accelerate turbine commissioning. With EDF EN owning 50% of the project, management highlighted that its partner brought in substantial negotiating power on supply terms and conditions. EDF EN also helped significantly in closing the Monte Grighine financing with an immediate spread reduction. Beyond financing benefits for the company, the partnership with EDF EN has some significant Capex reduction benefits related to turbine supply and civil work. The project financing structure remains however 50% financed through equity and it is the partners' intention to refinance the project when the appeal case on the construction is rejected and project performance is demonstrated.

On the Italian market, management highlighted that it is still very difficult to do business in the country. Despite centralized guidelines on application process, this is still handled by regional authorities, where practices vary substantially from one state to another. However, in the south part of Italy (excluding Sardinia and Sicilia) the local governments recognize the substantial economic impact of wind development. There is a risk a revision in 2011 of Italian tariffs. However the pool prices remain very high in Italy (c85/MWh) and the country is not fully on track to reach its 2020 target. A cut would be, in management view, only driven by capital constraints at the central government level.

# Gamesa - Meeting with CFO and IR

On the US market management outlined that competition continues to grow but given long-term framework contracts, the company is likely to be able secure sustained growth in installations. In addition, the focus for Gamesa at present is to sell its 7-8GW project pipeline in the US to achieve maximum value for its shareholders. In Spain, the company expects annual market size of 1.7-1.8GW with potential for a 40GW target for 2020 which is likely to lead to increased installations beyond 2012.

On the Chinese market, management commented that Gamesa has benefited from owning a pipeline where it has then been able to partner with utilities to secure contracts for project construction. In addition to ASP decline due to cheaper raw materials, CFO expects turbine pricing to reduce by some 5% in the Chinese market. However, the company believes pricing in other markets is likely to remain stable when adjusted for changes in raw material costs. In addition, management outlined its view that it does not expect Chinese manufacturers are likely to be able to compete in the international market in the next two to three years given the technology gap and product reliability. On the G-10, the company highlighted that following the erection of the first prototype in 2009, it is likely to install an additional turbine for testing purposes in 2010 with a view to begin serial production no later than the end of 2011.

# Hansen - Meeting with CFO and IR

The company believes that the next two quarters are likely to remain less favourable in terms of demand as de-stocking limits new orders, but expects an improvement in outlook in the second half of 2010. Management outlined that while it is negotiating both volume and prepayment terms, it is staying firm on pricing. Management outlined that China is likely to remain an ongoing focus for the company with more contract wins over the next year as Chinese manufacturers ramp up capacity and seek to develop larger turbines. The CFO outlined that Hansen maintains the flexibility to materially adjust capacity expansion expenditure based on demand and contracts signed. In addition, the company does not expect to expand capacity in the US at present.

The company's relationship with Suzlon remains strong despite the recently announced sale of ownership stake. At present, the company owns 26% of Hansen and any additional sale of stake will require Suzlon to relinquish its seat in the board of directors. In addition, management highlighted that the company's relationship with other key customers including Vestas and Gamesa remains sound with both companies maintaining payment records and contracts being take or pay. The company also expects to benefit from introduction of larger turbines such as Gamesa's G-10 given its favourable position in manufacturing high technology gearboxes. In addition, management expects no material changes in warranty provisions as the company seeks to develop such gearboxes.

# Manz Automation – Meeting with CFO

Manz management remains cautiously optimistic around a potential recovery in order backlog in the second half of 2010, in part due to scaling of its Lithium Ion batteries business and a recovery in the LCD market. The company's order backlog at the end of the third quarter in 2009 was €77.9mn. In addition, Manz has secured additional orders of some €15mn in the fourth quarter. Management expects order backlog growth may remain less favourable until the second half of 2010 with incremental orders primarily coming from Chinese manufacturers. In addition, management believes that some of the existing order backlog may be reduced with Applied Materials, the company's largest customer, cancelling on scheduled deliveries. This is likely to deliver some one-time cancellation payments for Manz in the fourth quarter of 2009 or first quarter of 2010.

On pricing, management outlined that while ASPs for c-Si equipment has reduced by approximately 20% compared to 2008; those for thin film equipment remain largely stable. On acquisitions, management outlined that is in a number of discussions, although timing around an actual transaction remains uncertain. The four major areas of interest at present are – wet chemical processes, vision technology, measurement technology and software. Management outlined that Lithium Ion car batteries continue to be less competitive compared to traditional engines at present and cost approximately €15,000. However, management believes that the company is likely to be able to reduce the cost of batteries by two thirds over the next two to three years. The company is in negotiations to deliver at least two turnkey lines for 2010, each with an annual production capacity of 500,000 cells, with each line delivering potential for some €10-15mn in revenues.

# Outotec - Meeting with CEO and IR

The company highlighted it is continuing to screen acquisitions. The target areas are services oriented to establish local operational presence in BRICS and accelerate the development in energy efficiency and water treatment. The timing of future acquisitions remains dependant on opportunity, size and ability of Outotec to integrate further acquisition. The Larox acquisition still needs to receive clearance from Anti-Trust authorities. Additional synergies beyond existing cost saving guidance still remain to be fully assessed after effective change in control. The company has not been able to enter discussions with Lorox customers to revert declining order backlog trend.

Maintaining balance sheet strength and financial flexibility remains a key focus for the company. On profitability the company continues to see the 5% EBIT margin guidance in all market conditions as relevant and challenging. In addition, management highlighted that services revenue guidance of €250-300mn run rate by the end of 2010 remains attainable but ambitious. To achieve the high end of its existing guidance the company needs to win additional orders beyond the contribution of Larox (which derives 50% of revenues from Services). The company is in particular focusing on increasing the scope of its service offering while strengthening its geographic presence. In its core business, Management highlighted that the pressure from customers to lengthen contract period and delay project commissioning have eased. Despite capex increases announced for 2010 by mining majors, the company outlined that timing around large orders remain uncertain but are likely to materialize over the next 18 months. Mr Pertti Korhonen, the newly appointed CEO, highlighted that the transition has been very well planned and he is likely to focus on five key areas to grow the business: energy efficiency, reducing carbon and gas emissions, oil peak, water treatment and declining ore grade.

# Q-Cells - Meeting with CEO and IR

The focus for Q-Cells at present is on ramping up its Malaysian facilities to deliver lower costs and be able to compete with Asian manufacturers, grow the Q-Cells Systems business while managing working capital and liquidity and develop a strong technology platform to deliver higher cell efficiency. Management outlined its belief that the Malaysian facility is likely to provide the company with a favourable combination of high quality product and low manufacturing costs. The company expects to reduce manufacturing costs by some 30% compared to legacy lines in Thalheim, Germany. In addition, management highlighted that if demand develops favourably, the company is able to scale production in Malaysia from 300MW to 600MW at limited additional expenditure (around €30mn).

For QCS, the company expects to develop some 400MW of projects for 2010. Management outlined that working capital made available to the division will be limited to €250mn to ensure the development business does not excessively stretch the company's balance sheet. Management believes that the key markets for project development in the first half of 2010 are likely to be Germany and Italy given attractive feed-in tariffs and improved availability of finance. On technology, the company reiterated its 2011 target of 20% efficiency. Importantly, management outlined a proprietary roadmap to increasing product efficiency, different from equipment manufacturers such as Manz and Roth & Rau who sell technology to Q-Cells' Asian competitors, which we believe may allow the company to maintain technology leadership. The company is also scaling its CIGS business, Solibro, which has been already been able to secure sale contracts for the 80-90MW planned output for 2010.

# SMA Solar – Meeting with IR

The company expects the US to become the largest PV market over the next three to five years. In line with its German operations, SMA believes it can replicate a similarly flexible production model in its 1GW US facility and plans to start production in the second half of 2010. The choice of Denver as a location is due to the flexibility of local employment laws coupled with the availability of skilled work force. Management outlined that it anticipates a material improvement in product mix with a higher contribution from the high power segment in 2010 driven by a strengthening of the US market, continuing demand from Germany and an improved funding environment in the first half in European markets. Management however maintains a cautious view on the development of the Asian markets. With labour costs representing 15-20% of total costs, establishing local manufacturing facilities dedicated to exportation is not strategically essential to the company.

The company is focusing on maintaining its technology edge against peers and is closely monitoring competitors move. SMA Solar has a team of 400 engineers focusing on R&D and management reiterated its target to launch 5-6 products a year. SMA's visibility remains limited with annual contract negotiations ending in the first weeks of January. The consensus industry expectation is for the solar market to represent 8-9GW in 2010 with Germany likely to remain the largest market driven by regulatory changes expected in 2010. Management highlighted risks of an early 2010 revision of German feed-in tariffs; however the middle of 2010 remains a base case scenario.

# Solar Millennium – Meeting with CTO

Following confirmation of its full year 2009 expectations, management outlined that the focus now shifts to positioning the company to be able to work with larger CSP projects, in particular in the US, by increasing balance sheet flexibility, exploring alternate funding arrangements and expanding EPC expertise. Solar Millennium expects to begin construction for at least two projects by the end of 2010 in the US, following negotiation of PPAs for three projects, each with 250MW of capacity, in 2009 with Southern California Edison and Nevada Energy. In addition, the company has two 50MW projects under construction in Spain which have already been pre-registered with a feed-in tariff set by regulators.

On funding, management highlighted a recent arrangement around securing funding of €4bn for projects in the US. In addition, management outlined a number of funding options that the company is exploring at present: first, Solar Millennium may issue additional capital over 2010 to expand its balance sheet capability to be able to construct more than two to three projects at one time; second, the company may alternatively issue equity in the US through its California based subsidy and third, the company may also potentially issue convertible debt equivalent to 6.25mn shares following an approval from the board during 2009. On Desertec, management commented that the focus for the initiative at present remains on promoting CSP technology in Europe and securing favourable laws to support growth for solar thermal. The company is already focusing project development in countries such as Morocco and Egypt so that it can benefit from significant operational know how once projects begin to be constructed in the MENA region over the next three to four years. Other key markets for the company at this time include South Africa, Australia and Israel.

# Suzlon – Meeting with CFO and IR

The focus for Suzlon at present is on completing the REpower acquisition and refinancing its balance sheet debt. Management outlined that it is evaluating a number of options to secure a domination stake: first, the company may increase ownership to 95% at which point Suzlon will have the option to squeeze out remaining shareholders through an open offer under German law; second, Suzlon may seek to renegotiate REpower's existing debt which will allow the company to secure a domination stake at current ownership levels. On Hansen, management commented that while it is likely to keep the remaining 26% stake in the near term, given it offers Suzlon a board seat, the company may seek to sell the same if it needs additional cash. Suzlon will however continue to procure gearboxes for its 1.5MW and 2.1MW gearboxes from Hansen.

The company continues to receive some 10-20% advance payments from its customers. In addition, management is not signing any longer-term contracts given its view that turbine pricing is likely to improve over 2010. Management outlined that at present, turbine prices have declined some 10% compared to last year but raw material price declines have allowed the company to broadly maintain profitability on a per turbine basis. The company expects the Indian market to install some 2,000-2,500MW in the next year of which management believes that Suzlon can sell 900-1,000MW. Other key markets for the company include US, China and Australia. The company expects to complete its debt restructuring exercise by January 2010. Under the ongoing discussions to refinance the remaining debt, Suzlon expects to be able to defer maturity and repayment terms as well as receive an additional credit line of INR 40,000mn.

# Terna – Meeting with CEO and IR

Management outlined that the business environment remains challenging in Greece. The company has continued to experience administrative delays with the average length of permitting process ranging from 20 to 30 months. The company expects the government to issue a draft regulation to accelerate the permitting process which could be presented to the parliament in first quarter of 2010. The company's IPO target was to reach 450MW by end of 2009. This was delayed 6 months at the end of 2008 and by an additional 6 months over the course of 2009 to become an end of 2010 target. This target remains challenging for the company. Terna Energy needs to receive an additional 200MW of construction licenses by the end of April-May 2010.

Management highlighted that funding has improved and to finance its 2012 1GW target, Terna Energy does not require additional capital. Spreads available are in the range of 200-225bps, which compares with 80bp before September 2008, the overall financing cost is flat to marginally up. On turbine supply, management outlined that the company has secured commitments for 200MW of turbines to reach its 450MW target by the end of 2010. Management highlighted it is in discussion to renegotiate on pricing, O&M and guarantee for half of its existing commitments. Under construction and committed turbines include Nordex, Enercon and Vestas. The company anticipates its capex cost to be in the €1.3mn / MW range for the next 100MW to enter construction and €1.2mn/MW for the following 100MW. The 4th EU community support framework, which has been renewed in 2009 provides a stable funding outlook for the 30% cash grant provided by the Government for wind installations, similar to the ITC cash grant in the US. In addition, the company is continuing its development outside Greece and is targeting Eastern Europe, Turkey, Jordan, Egypt and Brazil.

# Vestas – Meeting with CEO and IR

The company maintains its firm position on prices based on the anticipation of a rebound in turbine demand. The company highlighted its differentiated pricing model which will continue to drive margin expansion. Vestas cumulative largest customer is an operator in China where the company continues to see good potential for growth. Vestas is committed to the region and building a strong local position. The company intends to maintain a major competitive position in China and believes the non captive share to be approximately 50%.

Management reiterated its commitment to the US market and highlighted its strategy to defer ramp up of major capacity expansion was preferred to selling inventory at distressed price levels. Competition from Industrials conglomerate has been particularly intense on prices and the company highlighted uneconomic terms accepted by some competitors in 2009. Pursuing the development of a global supply chain is one of the main drivers of Vestas' focus to improve service delivery and quality. The company is using a range of tools to maximise organizational efficiency and optimise capacity. Technology differentiation has become increasingly important for Vestas to be able to maintain its leading position against major conglomerates. The company is not able to comment on timing, size or nature of the acquisition. However, management highlighted it has no interest in acquiring or taking strategic stakes in a competitor, a gearbox supplier, enter a new renewable market or fund projects.

# Wacker – Meeting with IR

The company believes it can sustain its competitive position against Asian competition in the Polysilicon division. Chinese competitors are making progress on quality however the company does not anticipates them to meet standards comparable to Wacker for an additional 3-5 years. The company outlined Poly customers' focus is in the vast majority directed towards short-term contracts. Wacker has entered discussions with new customers and highlighted prepayment levels have become marginal and uncertainty exists on the outlook for volumes and pricing levels at the company and industry aggregate levels

Wacker aims to sustain a c20% market share in the polysilicon market, and highlighted its expansion plans in the US are conditioned to when and where demand become more visible. The company drew attention to the permitting needs that would need to be in place by the end of 2011 for construction to start in the 2011-2012 period. Despite challenging end market developments, Wacker continues to see Siltronics as core business and strategic for the group. The focus has come back to thicker wafers as polysilicon availability improved over the last twelve months. The company is not concerned by competition sourcing equipments from European equipment manufacturers and highlighted it will result in marginal competition which are likely to find their competitive position challenged in the next cycle. The company target to remain a cost and margin leader in the market.

# **EUROPEAN RENEWABLES BENCHMARKING**

- We present a relative and fundamental benchmarking analysis of the 32 Renewables companies under our coverage universe which combines financial, competitive position and investability metrics
- SMA Solar, Vestas and Outotec, our key Solar, Wind and Energy Efficiency picks for 2010 from our fundamental benchmarking, are in our view well positioned to outperform the sector over the coming 12 months
- This benchmarking analysis is based on our CY 2009-211E views and Barclays Capital financial forecasts and perspectives

### Benchmarking methodology

Category	Methodology	Weight (%
Financial		75.0%
Growth		25.0%
EPS growth	CY2009-11E CAGR	12.50%
Sales growth	CY2009-11E CAGR	12.50%
Profitability		25.0%
ROCE	CY2009-11E CAGR	12.50%
Operating margin expansion	Average CY2009-11E YoY absolute change	12.50%
Cash flow generation		25.0%
WC/Sales	CY2009-11E simple average	8.33%
OP cash flow to sales	CY2009-11E simple average	8.33%
Free cash flow to sales	CY2009-11E simple average	8.33%
Balance sheet		25.0%
Net Debt/EBITDA	CY2009-11E simple average	8.33%
Net gearing	CY2009-11E simple average	8.33%
Asset turnover	CY2009-11E simple average	8.33%
Competitive position		15.0%
Geographical diversity	% of total 2008 Revenues from largest market	3.75%
Customer diversity	Barclays Capital view	3.75%
Technology leadership	Barclays Capital view	3.75%
Market/Pricing power	Barclays Capital view	3.75%
Investability		10.0%
Accounting standards	Barclays Capital view	2.50%
Disclosures	Barclays Capital view	2.50%
Free float	Current Free Float as % Share Outstanding	2.50%
Average Daily volume	2009 Average Daily Volume (€mn)	2.50%

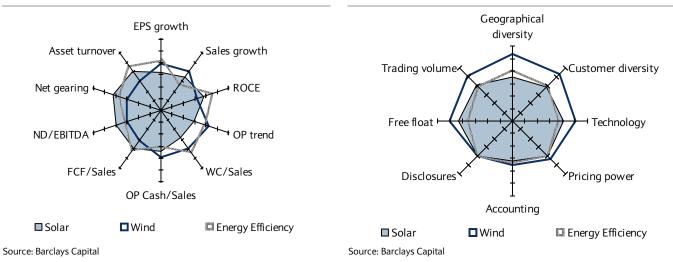
In our financial analysis we have incorporated growth, profitability, cash flow generation and balance sheet metrics which are based on our CY2009-11E forecasts. Aside from geographical diversity, free float and average daily volume, competitive position and investability scores are based on our view of the assessed criteria.

Source: Barclays Capital

On an aggregate basis, wind outperforms solar on growth and earnings metrics. This mainly reflects the higher pricing resilience of the wind industry compared to solar as the supply chain continues to drive cost of energy closer to grid parity. On debt and balance sheet parameters, wind underperforms solar, mainly as a result higher capital intensity of wind farm operators and a higher cash flow volatility of solar companies which has limited their ability to leverage their balance sheet.

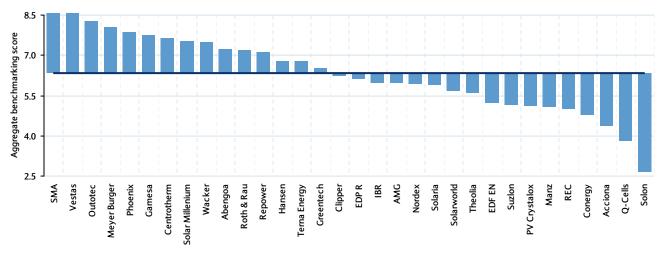
## Financial benchmarking

### Competitive position and investability benchmark



Our benchmarking analysis is an indicator of the fundamental strength of individual companies. The fundamental benchmarking score is correlated to our recommendation structure, with 70% of our 1-Overweight recommendations in the top scoring third and 66% of our 3-Underweight stocks under coverage in the third benchmarking tier. The correlation is particularly relevant for the top three benchmark scoring companies: SMA, Vestas and Outotec which represent our 2010 key 1-Overweight recommendations in Solar, Wind and Energy Efficiency.

# Barclays Capital European Renewables Benchmarking

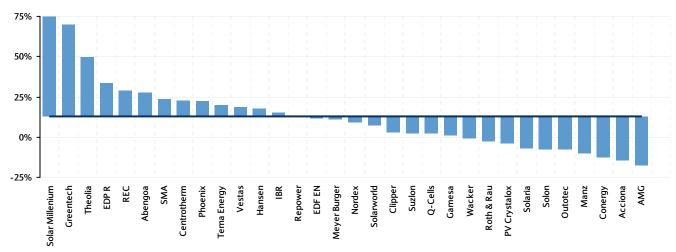


Source: Barclays Capital

### Financial metrics

As Solar Millennium and Abengoa continue to scale their CSP operations, we expect the companies EPS to grow at 75% and 25% CAGR over the 2009-11E period. In the top 5 performing companies, it is worth mentioning that Clipper, Conergy and Greentech have similar recovery characteristics with a forecast return to profitability over the next three years. Primarily as a result of our expectation for prices to continue to decline over the next three years, 8 out of the 10 worst-performing companies are part of European Solar PV.

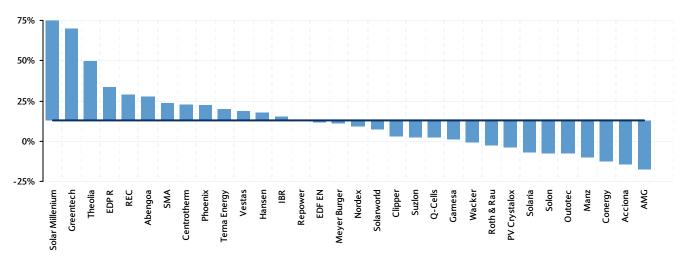
### EPS growth (CY2009-11E CAGR): 12.5% weight



Source: Company data, Barclays Capital

We identify three main themes among above average growth companies. First companies with exposure to solar CSP (Solar Millennium and Abengoa); second, companies which we forecast to benefit from positive end market development while maintaining their competitive advantage (Vestas, REC, Phoenix, Centrotherm and Hansen) and wind operators which grow at the rate of new installations (IBR, Terna, Greentech, EDPR). In the bottom third, we highlight 70% are European solar PV companies impacted by adverse pricing trends and 20% are Energy Efficiency companies, reflecting challenging end market demand in their specific sectors.

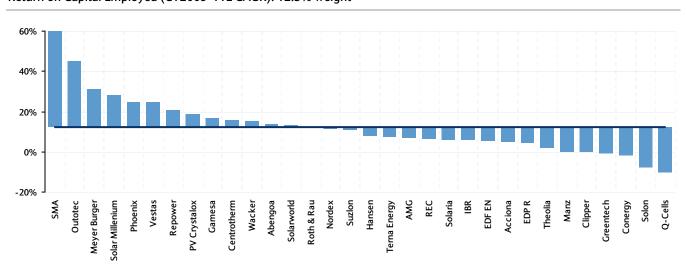
### Sales growth (CY2009-11E CAGR): 12.5% weight



Source: Company data, Barclays Capital

The best performing companies on return on capital measure have asset-light business and falls under three main categories: project oriented businesses (such as Outotec, Solar Millennium or Phoenix Solar) or present relatively higher than peer group profitability (such Vestas, SMA and Meyer Burger). Despite high profitability profiles, Wind operators have relatively low ROCE due to the capital intensity of wind investment and represent 60% of the 10 worst performing companies. The remaining face challenges to deliver industry levels of profitability (Manz, Solon, Clipper, Conergy and Q-Cells).

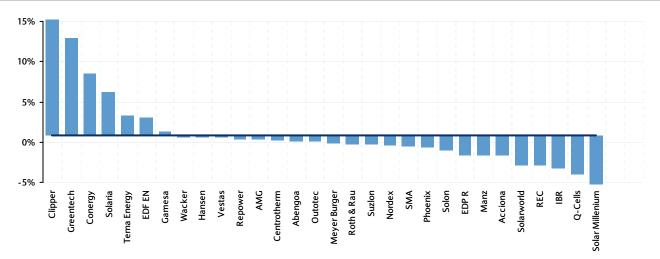
### Return on Capital Employed (CY2009-11E CAGR): 12.5% weight



Source: Company data, Barclays Capital

Recovering companies head the operating margin expansion benchmark. In particular we forecast a return to profitability for Clipper and Conergy over the next three years. In addition, the majority of above industry average performing companies benefit from positive an increase in Renewables asset under operation such as Greentech, Solaria, Terna Energy and EDF EN. 80% of the companies in the worst performing tier are European solar PV companies which we believe will continue to face pricing and margin pressure in the medium term.

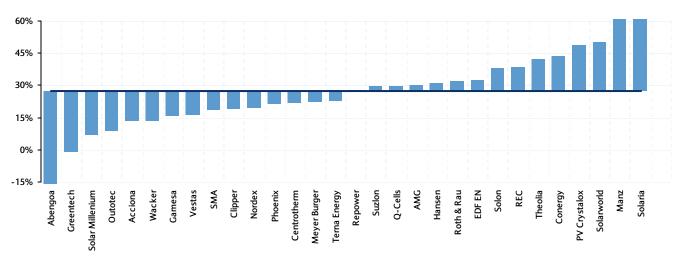
# Operating margin expansion (CY2009-11E average YoY absolute change): 12.5% weight



Source: Company data, Barclays Capital

Renewables and Transmission asset owners (Abengoa, Greentech, Theolia, Acciona), project oriented businesses (Solar Millennium, Outotec) as well as market leading operators (Vestas, SMA and Wacker) benefit from relatively lower working capital intensity. Though we anticipate prepayments to decline across Renewables businesses, we expect this trend coupled with inventory build up to be more pronounced in the solar PV industry which contains 80% of the 10 worst performing companies on working capital measures.

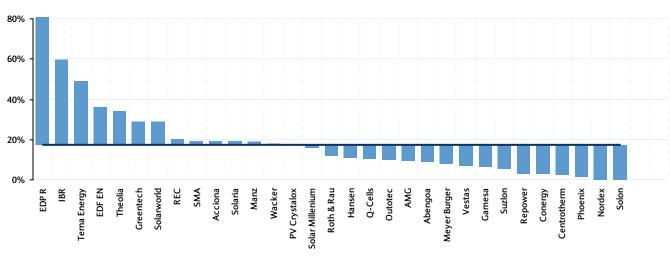
### Working Capital/Sales (CY2009-11E simple average): 8.3% weight



Source: Company data, Barclays Capital

Wind operators benefit from relatively high profitability and cash flow generation profiles with all companies under coverage in the top 10 performing companies. The first tier is complemented by solar upstream or vertically integrated companies (Wacker, SolarWorld and REC) as well as niche players with relatively high profitability profile (SMA). Driven by weakening prepayment terms and a return to growth we expect the Renewables supply chain and solar PV in particular to underperform the sector on cash flow generation from operations.

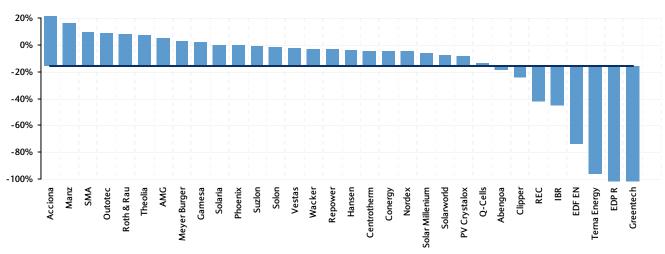
### Operating cash flow to sales (CY2009-11E simple average): 8.3% weight



Source: Company data, Barclays Capital

Acciona's leading position reflects deleveraging efforts coupled with a sharp increase in operating wind assets mainly from the Endesa transaction. The remaining positive free cash flow generating companies have asset light business models such as SMA, Outotec, Roth & Rau and Manz Automation. Though wind operators lead operating cash flow relative ranking, the capital intensity of wind investment prevent from positive free cash to be generated over the next three years based on our capital expenditure forecasts.

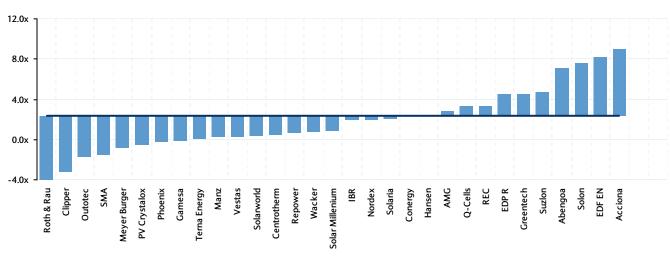
### Free cash flow to sales (CY2009-11E simple average): 8.3% weight



Source: Company data, Barclays Capital

The top tier positioned companies mainly reflect asset light business models (Roth and Rau, SMA, Outotec, Meyer Burger, Phoenix) coupled with conservative balance sheet approaches (Gamesa, PV Crystalox, Vestas, Terna Energy,) or company specific issues to raise debt (Clipper). Renewable asset owners underperform our benchmark as a result of the capital intensity of renewable investments and extensive use of non-recourse debt financing. In the bottom third of our benchmarking also lie companies with financial difficulties (AMG, Solon) or ambitious growth plans involving significant use of debt instruments (Suzlon, REC).

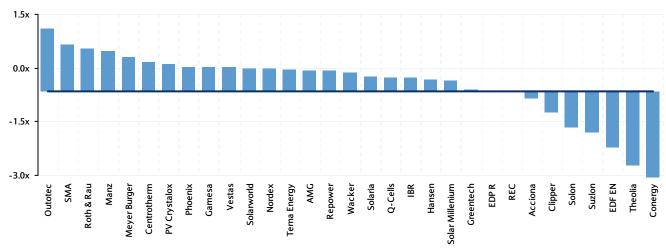
### Net Debt to EBITDA (CY2009-11E simple average): 8.3% weight



Source: Company data, Barclays Capital

Outotec, SMA and Phoenix, each with asset light business model, conservative leverage and have over the years built relatively strong balance sheet and net cash positions. Solar equipment manufacturers operate with limited inventory and enjoy asset light business models which will enable to maintain net cash and gearing positions over the next three years. Below industry average companies have relatively leveraged balance sheet such as wind operators (EDPR, Acciona) or are undergoing expansion (REC, Suzlon) or have a challenging liquidity position (Conergy, Theolia, Solon, Clipper)

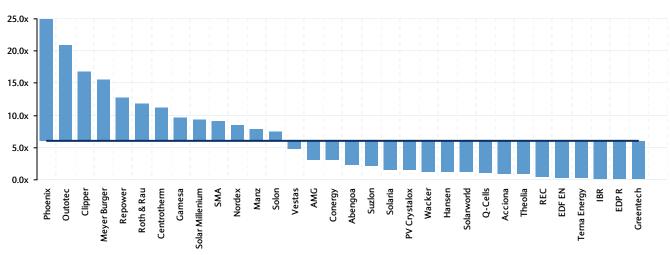
### Net Gearing (CY2009-11E simple average): 8.3% weight



Source: Company data, Barclays Capital

Project oriented business models (Phoenix, Outotec, Solar Millennium and Solon) as well as assembly businesses operating with efficiently integrated supply chains such as solar equipment and wind turbine manufacturers enjoy relatively asset light characteristics compared to the renewable sectors. This compares with more capital intensive business models for wind operators and Solar upstream where technology and capital intensity sustained relatively high barriers to entry.

### Asset turnover (CY2009-11E simple average): 8.3% weight

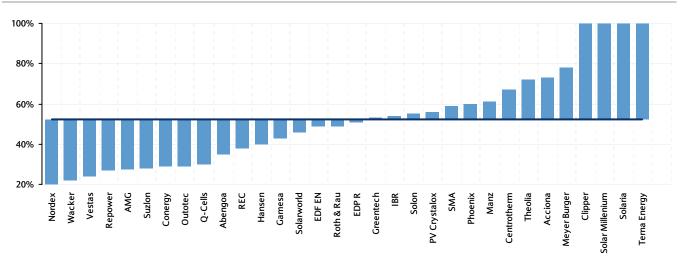


Source: Company data, Barclays Capital

# Competitive position metrics

Renewables companies with relatively diversified geographic risk include the wind turbine manufacturers (Nordex, Vestas, Suzlon, Repower and Gamesa) which enjoy a well geographically balanced end market, solar upstream operators (Wacker, REC and SolarWorld) as well as energy efficiency companies (AMG, OT and Abengoa). Relatively concentrated companies include the solar end market driven businesses (SMA, Solon, Phoenix) with a relatively high dependence on the German market, Equipment manufacturers with a relatively highly concentrated Asian customer base or companies with historically home market focused and international expansion aspirations (Clipper, Terna Energy, Solaria)

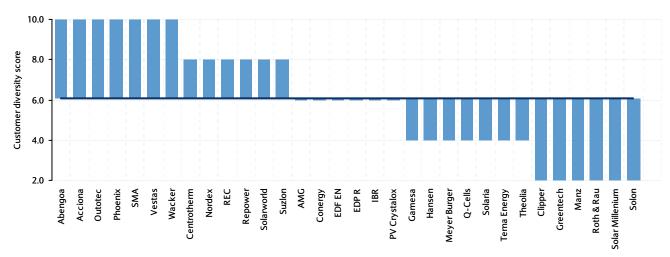
# Geographical diversity (% of total 2008 revenues from largest market): 3.8% weight



Source: Company data, Barclays Capital

In line with geographical diversity, we view wind turbine manufacturers and solar upstream players as relatively customer diverse. Technology leaders such as Outotec, SMA or Vestas have in addition put at early stage of development international expansion at the heart of their strategy. Relatively concentrated companies for contractual reasons include Gamesa and Hansen as well as solar equipment manufacturer which customer group has been materially reduced as a result of financing difficulties, volumes and pricing uncertainties. Clipper and Solar Millennium, as a result of new technology commercialisation and scale equally enjoy limited customer diversity.

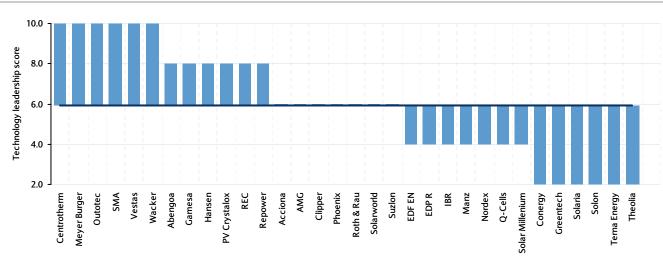
## Customer diversity (Barclays Capital view): 3.8% weight



Source: Barclays Capital

We believe companies which sustainably enable to cost of energy or offer energy efficient solutions enjoy significant competitive advantage over peers. In particular, we believe solar equipment manufacturers such as Centrotherm and Meyer Burger, cost of energy leaders such as Vestas as well as solar upstream operators Wacker, REC and PV Crystalox enjoy significant barriers to entry. Despite project design and O&M experience, we do not consider wind operators and tier two players in particular as technology leaders. In addition, we highlight the relatively non differentiated technology from some tier two wind and solar players such as Nordex, Q-Cells, Conergy, Solaria and Solon.

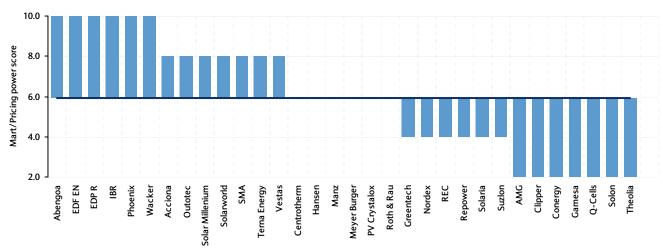
## Technology leadership (Barclays Capital view) - 3.8% weight



Source: Barclays Capital

We believe wind operators with the ability to continue to expand capacity enjoy significant market and pricing power given the more balance turbine supply (IBR, EDP R, EDF EN, Terna Energy). Companies which represent sizeable channel to market such as Phoenix, Acciona Abengoa or Solar Millennium also continue in our view to enjoy some pricing power over peers. Finally, we highlight some pricing premium for high quality product players such as Vestas, SMA, Wacker, SolarWorld and Outotec. Though the pricing outlook for solar has improved over the last two quarters we remain cautious on the medium term. Equally, we remain cautious on the pricing outlook for tier two wind turbine manufacturers which have sometimes favoured booking volume at the expense of generous pricing terms.

## Market/Pricing power (Barclays Capital view) - 3.8% weight

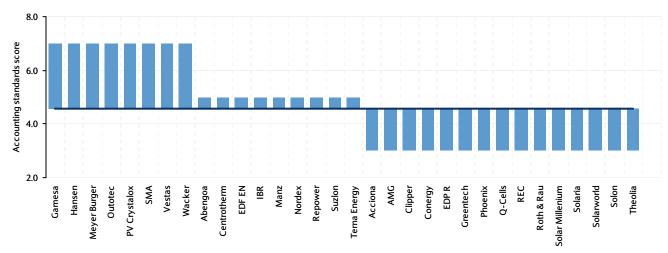


Source: Barclays Capital

# Investability metrics

We have adopted a slightly less differentiated scoring approach to assess accounting standards because of the subjective nature of assessed parameters. We have conducted our annual review of individual companies accounting policies and management estimate assumptions. Individual company comments are included in the *Knowledge Pages* section.

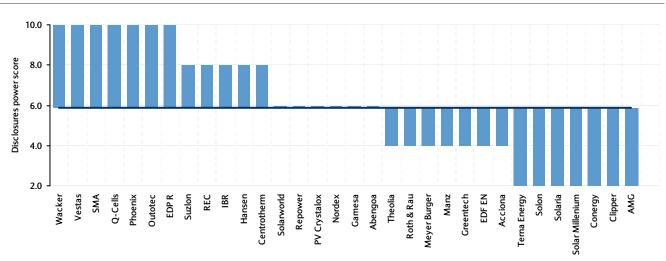
# Accounting standards (Barclays Capital view) - 2.5% weight



Source: Barclays Capital

By scoring the quality of companies disclosures we intent to assess both content, clarity and frequency of interim and annual communication. However, the format and content of communication often reflects home country practices and regulation. This relative ranking is intended to indicate the extent to which we believe disclosures allow formation of detailed and frequent investment decisions.

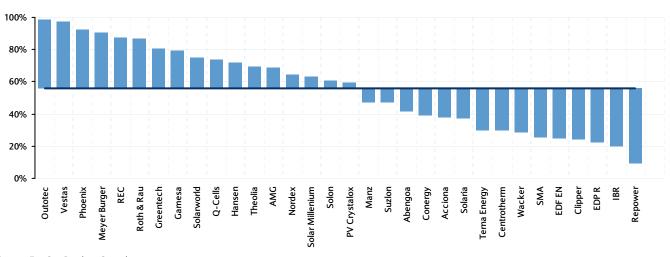
## Company disclosures (Barclays Capital view) - 2.5% weight



Source: Barclays Capital

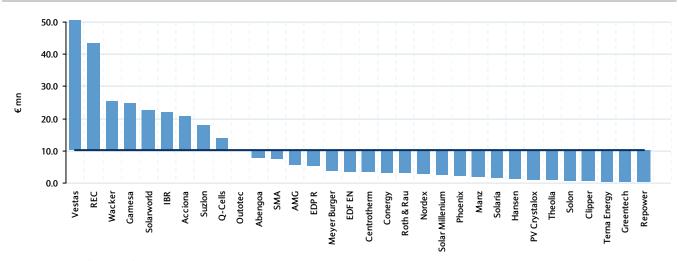
Despite investors' appetitive, we see limited potential to see material free float increase from wind operators IBR, EDP R, EDF EN and Terna Energy unless it is linked to strategic update coupled to a capital increase. Free floats in the sector might however continue to be impacted by M&A and strategic transactions in the medium term. Despite the breath of Renewables listed companies, liquidity often limits potential investment choices. We expect this to be mitigated as already listed companies continue to grow and additional companies are introduced over the next 12-24 months.

Free float (current free float % share outstanding) – 2.5% weight



Source: FactSet, Barclays Capital

# Average daily volume (2009 average daily volume, mn) – 2.5% weight



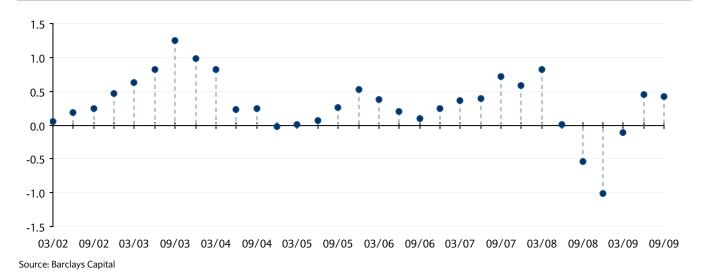
Source: FactSet, Barclays Capital

# RENEWABLES HEALTH OUTLOOK

The chart below shows the outlook indicator from 2001 onwards calculated on a quarterly basis. Based on our methodology, a result above zero indicates positive demand outlook for wind and solar over the next 6-12 months. Likewise, a result below zero indicates a less favourable period with reduced demand compared to the quarter completed. In addition, the magnitude of the indicator provides additional information about the scale of expansion or contraction. An indicator value above or below 1.0 indicates a period of significant expansion or contraction respectively.

During 2007, the indicator entered a favourable period for growth in renewable installations as high coal and electricity prices and continued policy support outweighed an increase in interest rates and silicon prices. The period of positive growth outlook continued until the first quarter of 2008 at which point the indicator entered a contractionary period with a weakening in fundamentals including reduced economic activity, less favourable financing conditions and lower oil and electricity prices. By the end of 2008, the indicator almost entered a period significant contraction outlining a period of decline in installations during the first half of 2009. The indicator began to turn positive over 2009 and entered a period of expansion by the end of the second quarter, driven by reduced interest rates, increase in electricity prices and favourable policy support in countries such as Germany, US and China. At the end of the third quarter, the indicator remained positive, the outlook for installations remains positive. However the magnitude of the indicator has decreased to 0.66 from 0.82 in the second quarter of 2009 primarily due to lack of additional policy support, in particular uncertainty around German feed-in tariffs and the US Federal RPS.

#### **Renewables Health Outlook**



## Methodology

Our Barclays Capital Renewables Health Outlook combines industry metrics that impact our sector to provide a forward-looking, 6-month indicator of demand for wind and solar installations globally. The demand outlook indicator includes data that is lagged to reflect its projected impact on demand. We breakdown the components for our Demand Outlook from three categories: commodities, industry data and renewables specific inputs.

### Renewable health outlook - component weights

GDP	Policy	Coal	Industrial Activity	Steel
25.0%	21.4%	17.8%	14.3%	8.9%
Euribor	Oil Prices	Electricity	Silicon	Housing
8.9%	1.8%	0.9%	0.9%	0.2%

Source: Barclays Capital

## Quarterly contribution of components

Quarter	GDP	Policy	Coal	Industrial Activity	Steel	Euribor	Oil Prices	Electricity	Silicon	Housing
Q308	1.0%	1.3%	-8.8%	0.8%	-10.1%	-2.3%	1.1%	-0.4%	-0.3%	0.0%
Q408	0.6%	-0.5%	-29.3%	-1.3%	-2.2%	-2.6%	1.4%	0.0%	0.4%	0.0%
Q109	0.3%	-2.4%	-16.2%	-1.6%	8.3%	4.7%	2.0%	0.3%	0.8%	0.0%
Q209	0.3%	-4.4%	-3.6%	-4.2%	11.2%	13.9%	0.4%	1.1%	0.7%	-0.1%
Q309	3.7%	-4.5%	-1.4%	-3.1%	2.9%	17.0%	-2.0%	1.4%	0.1%	0.0%

Source: Barclays Capital

## GDP (25.0%)

We assume increased economic growth to be a positive driver for power demand and therefore for renewables generation. We include GDP for the US, Germany, China, France, Spain, Italy, United Kingdom, and Japan. We assume a nine month lag for this indicator.

#### **GDP** components

Positive Contributors		Negative Contributors	
China	5.2%	UK	-0.4%
Germany	1.5%	Spain	-0.7%
Italy	0.9%	Japan	-1.8%
France	0.3%	US	-4.1%

Source: Barclays Capital

## Policy (21.4%)

Policy developments are an important driver for renewables installations, in particular solar given the current cost of energy. Given the policy implications, we track tariffs and other policy tools, weighted by historic installations to assess their impact in the overall market. We assume a lag of six months for this indicator.

# Industrial activity (14.3%)

As bottlenecks to the supply chain for wind and solar has been limiting factors for installations in recent years, we assume lower industrial activity in other sectors to be positive for renewables demand, which is likely to be able to grow more rapidly. We assume industrial activity for the US, China, Germany, France, Spain, Italy, United Kingdom, Denmark, Greece and Canada. We assume a three-month lag for this indicator.

## Industrial activity components

Positive Contributors	١	legative Contributors	
Germany	3.5%	Canada	-0.1%
France	2.9%	Spain	-0.7%
US	1.4%	UK	-1.3%
China	0.5%	Denmark	-3.6%
		Greece	-4.2%
		Italy	-11.1%

Source: Barclays Capital

## Coal (17.8%)

Coal prices are a main benchmark for renewables installations in countries and we therefore assume higher coal prices to be a positive beneficiary to the demand outlook. There is a significant lag to actual installations, and we assume a 3-month lag for this indicator.

### Steel (8.9%)

Steel costs represent an important raw material cost for turbine manufacturers as the overall cost of a tower can represent as much as 25% of the turbine. We assume declining steel prices to be a positive development for wind, and we use Base Metals Steel Hot Rolled Coil (USD/Ton) quoted in US dollars as our benchmark.

#### Euribor (8.9%)

We include both Euribor and Libor (GBP and USD) to project developments for wind and solar installations, which typically include some element of project finance. We assume that increased rates will reduce IRRs for projects all else being equal, and this will adversely impact future installations. We assume a 3-month lag for this indicator.

## Oil Prices (1.8%)

The oil price is an important determinant for power prices in major economies for marginal rates. Although long-term power purchase agreement rates are unlikely to be directly impacted by variations in the oil price, the benefit that renewables enjoys as a natural hedge to fluctuations remains a driver for solar and wind installations. We assume a 9-month lag for this indicator.

#### Electricity (0.9%)

We use electricity prices from the Amsterdam, Dow Jones, Swiss and Nordpool exchanges. In addition, given different renewable energy sources are suited for different types of power demand, such as solar PV which is ideal for on peak requirement; we average off peak, on peak and base load prices. We apply a 9-month lag for this indicator.

## Silicon (0.9%)

Silicon prices are an important cost driver for the solar space. In our demand outlook, we assume that declines in silicon prices will help drive future solar installations through reduced cost of energy. However, this may have an adverse near-term effect on industry's profitability in the upstream, though downstream operators may benefit from this lower cost. As only a limited percentage of silicon supply is conducted through spot prices, we accept contract price agreements to be more impactual, though still view spot prices as a closely followed indicator. We apply no lag to this indicator.

#### Housing (0.2%)

New housing starts and renovations are important for solar panel installations where residential rooftops are a key segment. The major regions of focus are US, Canada and the European Union and we assume a 3-month lag for this indicator.

## Housing components

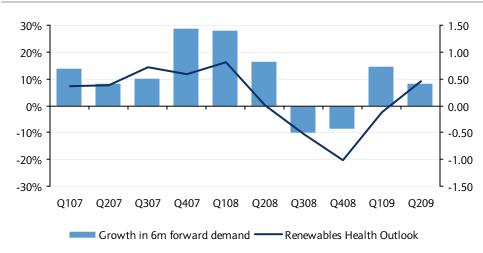
Positive Contributors		Negative Contribut	tors
Canada	19.9%	US	-0.2%
EU 27	2.2%		

Source: Barclays Capital

## Back testing the indicator

We outline below a back testing of the Renewables Health Outlook indicator against actual demand. The chart compares the 6m forward demand growth at the end of each quarter since Q107 and the value of the indicator. We note that over 2007, the indicator and growth remain broadly positive with material levels activity until the end of the second quarter of 2008. Following the Lehman bankruptcy in September 2008, growth begins to slow down as the indicator turns negative driven by difficult financing conditions, low economic activity as well as reduced oil and coal prices. Demand returns at the end of the first quarter of 2009 (although from a low base) as the indicator begins to turn positive, driven by a favourable regulatory environment.

## Renewables Health Outlook: Back testing



Source: Barclays Capital

# HISTORICAL VALUATION

In 2009, though fundamentals gradually improved the Renewables sector has been impacted by low capacity utilisation, pricing pressure and financing constraints with the sector trading at a 12% premium to the Euro Stoxx Industrials against a 72% premium in 2008. Over 2010, as expectations are revised to fully reflect the sector growth prospects in wind, solar and Energy efficiency we expect Renewables to trade at a greater premium to Industrials than in 2009.

30.0x 24.0x - 18.0x - 12.0x -

12M fw. EV/EBIT: European Renewables vs DJ Stoxx

Source: FactSet, Bloomberg, Barclays Capital

We believe the 53% and 8% premium at which the Wind sector has been trading over the Solar and wider Industrials space in 2009 reflects competitive cost of energy, proven technology track record and strong policy support. The premium at which wind traded over solar in 1H09 reflected the anticipation of positive regulatory changes in the US. This premium gradually declined in 2H09 as the solar supply demand outlook improved from stronger installations in Germany and financing constraints continued to limit wind order intake.



12M fw. EV/EBIT: Wind vs. Solar

Source: FactSet, Bloomberg, Barclays Capital

## Wind

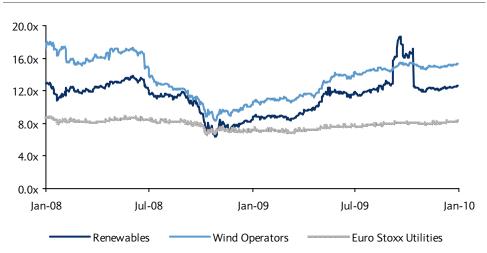
As a result of financing constraints, lack of new orders in major markets and historically low capacity utilisation, the wind supply chain traded at a 24% discount to the Industrials sector in 2009 (40% premium in 2008). As the effects to the American Recovery Act become more apparent in 2010 and orders flow accelerate for 2010 and 2011 deliveries in all geographies, we believe the wind supply chain discount to the wider industrials space is likely to materially decline.

30.0x 24.0x - 18.0x - 12.0x - 6.0x - 10.0x | Jul-08 | Jul-09 | Jul-09 | Jan-10 | Jul-09 | Jan-10 | Euro Stoxx Industrials

12M fw. EV/EBIT: Wind Supply Chain vs. DJ Industrials

 $Source: FactSet, Bloomberg, Barclays \ Capital$ 

The significant premium at which Wind Operators traded relative to the Euro Stoxx Utilities reflects three key elements: growth prospects have driven by attractive regulatory support, improved project economics, high visibility of cash flow generation, and solid execution performance from tier one operators. With the sector trading below its installed capacity replacement costs for a material part of 2009, we still believe current valuation does not reflect the full value of development pipelines.



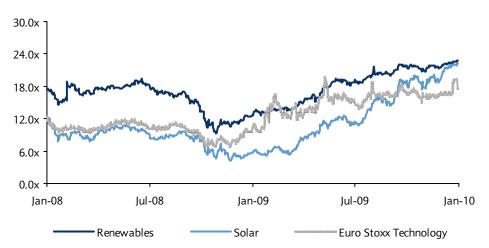
12M fw. EV/EBITDA: Wind Operators vs. DJ Utilities

Source: FactSet, Bloomberg, Barclays Capital

## Solar

In the light of a strong second half of the year, improved capacity utilisation and expectation of a return to sustained level of growth, the solar sector has been trading at a 19% premium to the Euro Stoxx Technology in Q4 2009. We believe current valuation reflects high volume anticipation for 1H10 ahead of important regulatory changes in Germany. The sharp reduction in prices across the value chain, despite short- and medium-term impact on profitability increased barriers to entry and in our view improved medium- and long-term growth prospects as cost of energy approaches retail electricity prices. The Solar sector trades at its smallest historical discount to Renewables and is in our view mostly due to declining pricing and volume uncertainty. In 2010 we expect solar stock performance to be primarily driven by rising consensus expectations more than valuation multiple expansion.

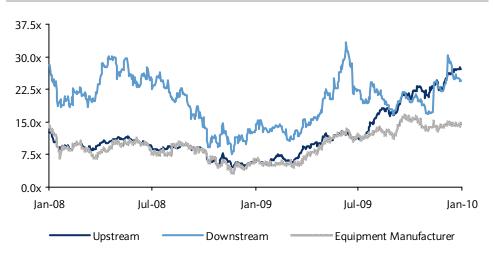
## 12M fw. EV/EBIT: Solar vs. DJ Technology



Source: FactSet, Bloomberg, Barclays Capital

Valuation volatility of downstream operators has been far more pronounced than for the rest of the sector which benefited from higher barriers as well as lower uncertainty on the volume and pricing outlook. In addition, the downstream segment has experienced more pronounced price negotiations, inventory write downs and working capital pressure. In anticipation of a reduction of investment cycles and due to relatively strong balance sheet and asset light business model, equipment manufacturers' valuation expanded in 2009 despite relatively low order intake. Due to higher than sector average earnings visibility driven by (though renegotiated) long-term contract and high barriers to entry, upstream valuation has been the least volatile amongst solar sub-segments.

12M fw. EV/EBIT: Solar Upstream, Downstream and Equipment Manufacturer



Source: FactSet, Bloomberg, Barclays Capital

# CONCENTRATING SOLAR THERMAL

Concentrating solar thermal is uses a system of mirrors or lenses to focus a large amount of sunlight on a small area. The concentrated light can then be used to generate heat which can drive conventional thermal power plants.

A key advantage of solar thermal is that energy can be stored, typically in molten sales, so that electricity can be delivered as needed to the grid, even when the sun is not shining. Alternatively, developers are now able to set up hybrid plants that integrate solar thermal plants with combined cycle gas turbines.

As of November 2009, some 604MW of solar thermal projects were in operation. In addition, a total of 979MW of projects were under construction, primarily in Spain. However, the largest potential market for solar thermal installations remains the US. There are approximately 7GW of proposed projects in the US at present. Given the lower cost of energy and scalability benefits compared to Solar PV, utilities in the US have been signing a number of PPAs over the last year with project developers such as Abengoa and Solar Millennium to construct CSP projects.

We outline below a summary of installed and announced solar thermal projects:

## Announced solar thermal capacity

(MW)	Operating	Under Construction	Proposed
Israel			220
Morocco	6	20	
Algeria		25	140
Egypt		25	
South Africa			100
Spain	172	857	
Greece			50
Germany	2		
USA	424	0	6987
Mexico			31
China		50	
Australia		2	
Total	604	979	7528

Source: ESTELA

# Parabolic Trough technology

Parabolic trough utilizes a network of concave mirrors that continually track the sun during the day and concentrate sunlight onto receiver tubes located at the focal point. The receiver tubes are manufactured to maximise the collection of heat and reduce heat loss. A thermal heat transfer liquid is circulated through the network of receiver tubes and is heated to approximately 400°C. The liquid, typically synthetic oil can then be passed through heat exchangers to produce super heated steam that is converted to electricity in a thermal generator.

Parabolic trough represents the most commonly used solar thermal technology today. The first project was built in the 1980's in the US with a total capacity of 350MW. In October

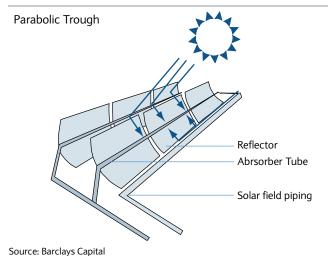
2009, there were more than 30 plants under construction in Spain, In addition, a number of new projects with an average size of approximately 250MW each have been announced in the US. Other countries developing trough based projects include Algeria, Morocco and Egypt.

#### **Solar Towers**

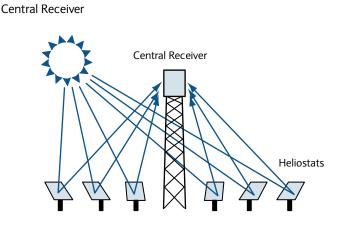
Solar Towers use big mirrors called heliostats that concentrate sunlight on to a central receiver. The receiver contains a heat transfer fluid and can reach temperatures of around 500-600°C. At present, there are two solar tower based projects under operation – PS10 (!!MW) and PS20 (20MW) - both developed by Abengoa. An addition project with 17MW of capacity is being constructed in Seville and will be equipped with thermal storage as well.

Compared to parabolic trough, the land use in case of solar tower plants is less effective. In addition, the size of these plants may be limited by the maximum distance between the solar tower and heliostats. However, unlike parabolic trough, solar tower does not require a flat surface and delivers potential to increase operational efficiency by raising the fluid temperature.

## Parabolic Troughs



#### Solar Towers



# **Dish Stirling Systems**

Dish Stirling systems consist of a curved mirror surface that tracks the sun during the day and concentrates sunlight on a heat absorption unit. The focused solar energy is converted to grid-quality electricity using a Stirling engine. Unlike solar tower and parabolic trough, the engine uses Hydrogen or Helium as the internal working fluid.

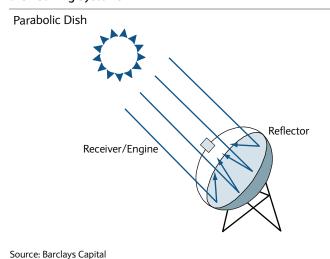
Source: Barclays Capital

A key advantage of the Dish Stirling design is that given its modular design, this technology is suitable for both distributed as well as utility scale power projects. In addition, the technology does not use water for operation and benefit from a high degree of slope tolerance and slight flexibility. In addition, the system delivers scope for increased availability as there is no singular point of failure. Approximately 1.7GW of projects using the Stirling engine technology are expected to begin construction over the next three years in the US.

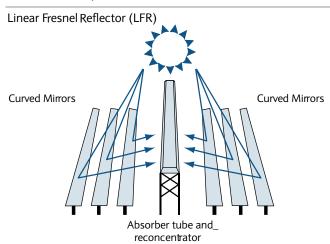
## **Linear Fresnel Systems**

Such systems use an arrangement similar to parabolic trough. A fixed absorber is positioned above a field of horizontally mounted flat mirror stripes, collectively or individually tracked to the sun. While still being tested, the technology benefits from a comparatively simple manufacturing process as the reflectors are flat and can be arranged in linear pattern. Linear Fresnel Systems use water in place of a heat transfer liquid. The water is then directly converted to super heated steam at 450°C which can drive conventional power plants. At present there are no commercial Fresnel based plants under development.

## **Dish Stirling Systems**



## **Linear Fresnel Systems**



Source: Barclays Capital

#### Desertec

The Desertec Initiative aims to promote construction of solar thermal plants in North Africa. The project envisions that by 2050, approximately 15% of European power consumption can be sourced from solar thermal projects in the Sahara region and be transferred to Central Europe through a high voltage direct current grid. An additional benefit of setting these projects in the Sahara is that CSP plants can be used to convert sea water into drinking water by including a desalination plant.

While project development under the Desertec initiative is less likely to begin during 2010, we believe that the joint industry effort is likely to favourably position solar thermal as a technology of choice among politicians and financing institutions. In addition, we expect that North African countries are increasingly likely to ramp capacity given the potential for CSP that Desertec has highlighted in the region. Project developers such as Abengoa and Solar Millennium are likely to benefit from such capacity ramp up through EPC contracts and sale of equipment.

## Playing the CSP sector

Our coverage universe includes four names that are involved in developing solar thermal capacity: Solar Millennium, Abengoa, Iberdrola Renovables and Acciona. In our view, given lower focus on CSP, Iberdrola Renovables and Acciona offer limited exposure to the sector. Solar Millennium benefits from being the only listed company from 100% to solar thermal. The company has developed a strong operational track record and has some 100MW in operation and an additional 100MW under construction. Like Solar Millennium, Abengoa also offers strong project development expertise and has installed some 31MW of capacity

with an additional 150MW under construction. Both companies have been able to secure PPAs for projects in the US and are part of the Desertec initiative which seeks to develop large scale solar thermal projects in the Sahara region.

However, we highlight our preference for Abengoa over Solar Millennium at this time for investors looking to get exposure to the CSP sector for the following reasons: First, Abengoa benefits from much greater financial flexibility and is likely to be able to carry out simultaneous project development on more than the two-three projects that Solar Millennium can at present given its balance sheet size. Second, given its favourable exposure to CSP, the Solar Millennium stock has appreciated 98.67% in the last three months. We believe given the announced projects there is limited upside to the share performance at present. Over 2010, we expect Solar Millennium to raise additional capital to be able to develop a greater number of projects which is likely to provide further upside to current market expectations.

# **GLOBAL SECTOR VIEW**

We outline below the published comments from our US Renewables analyst, Vishal Shah:

We expect 2010 to be the first year in the sector's recent history, where both demand elasticity and supply in-elasticity could be at play. Just as lower prices induce higher demand, we believe lower prices also induce higher supply "reduction". This phenomenon is non-linear – in other words, supply reduction is not correlated to price reduction until prices reach cash cost levels of high cost suppliers. We believe cash cost of several high cost suppliers (poly to module) is roughly US\$1.60-\$2.00/W. The pace of capacity reductions was very minimal until panel prices reached \$2/W. We expect accelerated capacity reductions from 2010 as panel prices approach \$1.50-\$1.60/W by end 2010.

We expect continued evidence of demand elasticity, especially in European markets where returns are already very high and may not be sustainable. We expects these demand spurts to occur in markets such as Italy, France, Czech Republic, Belgium, Bulgaria to name a few, as governments in these countries potentially follow German government's steps of adjusting subsidies to reflect the reduced pricing environment. As long as sufficient financing/permitting is available, we expect lower prices to lead to higher demand.

Given the short lead times in the solar industry, visibility is likely to be relatively limited for the foreseeable future. Despite limited demand visibility for pretty much most of this year, select solar stocks outperformed and we expect this trend to continue in 2010. Gradual improvement in permitting and financing conditions, further ASP declines and positive impact of recently announced stimulus programs could result in upside to 2H10 demand expectations. We believe German market decline from 2H10 is the primary concern for most investors today – assuming German market is progressing at ~1.5GW quarterly runrate exceeding Q210 (~1.2-1.4GW more likely) and declines to ~300-400MW quarterly runrate in 2H10, we believe the incremental demand from France, China, US, Italy, other European markets could potentially offset the potential decline in German shipments. Moreover, a modest subsidy cut in Germany in 2H10 could even result in continued demand strength since 2010 is likely to be the peak profitability year for several German installers.

We highlight the following key themes: (i) focus on low cost operators, (ii) focus on positive estimate revision opportunities, (iii) focus on valuation multiple expansion opportunities. Our stock selection framework is based on the following: (i) investor sentiment - the weaker the better, (ii) potential catalysts/sentiment inflection point, (iii) company specific catalysts, (iv) room for upside to 2010 fundamentals, (v) business model preference, (vi) valuation multiple opportunity. We see positive near term momentum for CSIQ, TSL, SPWRA, JASO, STP and YGE.

## Polysilicon capacity in China

At the end of 2008, China had 10,500MT of capacity online. We estimate that at the end of 2009, this number increased to over 35,500MT of poly, and will increase to 44,300MT by the end of 2010. We estimate that China shipped over 18,000MT of poly in 2009, and will ship over 39,000MT of poly in 2010. The largest Chinese supplier of Polysilicon is GCL, with 18,000MT of capacity at the end of 2009. We estimate that GCL shipped 8,000MT of poly in 2009, and could ship over 17,000MT of poly in 2010.

#### China Wind versus Solar

Wind installations in China really took off over the past five years. Total installed wind capacity increased from ~1GW in 2005 to over 12GW in 2008 and could approach 23GW in 2009. China's wind capacity is expected to exceed 30GW by the end of 2010, up from 12GW in 2008. By 2020, wind installed capacity is expected to exceed 120GW. Solar installation capacity in China, in our view is where wind was in 2002-2003. In July 2009, the Chinese Ministry of Finance announced a new subsidy program to promote self generation and self consumption of renewable energy. The "Golden Sun" project would provide subsidies for up to 70% of overall system price and targets a minimum of 500MW of solar generation over the next 2-3 years. Subsidy program encourages maximum of 20MW per project per province and is more attractive for off-grid generation - subsidies for up to 70% of the system price would be provided for off-grid projects. On-grid projects would receive subsidies for up to 50% of the projects. Any additional electricity generated under this program would be sold back to the grid at prevailing grid prices of \$0.07-\$0.10/kWh.

Although we do not expect solar capacity to exceed wind anytime soon, we believe the pace of solar development in China could continue to exceed the pace of wind development for a number of reasons: First, the introduction of a national feed-in-tariff for solar could trigger development of more than 8GW of announced solar projects in various provinces over the next 2-3 years. Second, unlike the Chinese wind industry, domestic solar manufacturing capacity has grown very rapidly and could support over 10 GW of annual installations in the next 2-3 years. Wind industry growth in China was constrained by supply chain bottlenecks during the 2004-07 timeframe. We do not expect any constraints in the case of solar development. Third, renewable energy development historically has also been constrained by the relatively slow development of grid infrastructure. The Chinese government recently allocated RMB1.5trn as part of the Stimulus Package towards development of grid infrastructure. Finally, post the recent Copenhagen conference; the government announced new regulations to increase the use of renewable energy by requiring electricity grid operators to prioritize their use of renewables. The amended Renewable Energy Law will require state-owned electric grid companies, responsible for distributing electricity from power plants, to buy all the electricity generated from renewable sources even when it is more expensive and more complicated to use than electricity from coal-fired plants.

## CARBON: THE EU ETS: THE ONLY WAY IS FLAT

We outline below, the published comments of our Commodities team.

## EU ETS Phase 2: Bears and bounces

2009 was a year of modest prices – 40% down y/y

EUA prices over the last two months of the year reflected the trends seen in the previous six months — a random walk through the 13-15 €/t trading range. November was a very bearish month, with Dec 09 prices averaging 13.54 €/t, and dropping a good 10% between the first and last trading day of the month. A warm, wet and windy November meant power demand for thermal generation was low while the northern European energy markets were soft, with Dec 09 contract prices in the now endemically weak natural gas market, shedding 21% over the month. With weak gas accompanying some sustained utility selling, market direction was clearly signalled and prices tumbled. December saw a temporary end to that bearish trend with short position covering, some technical trading and a mix of speculative bounce given the Copenhagen Climate conference (COP15) expectations all adding to the mix. Once the shorts were covered, and the technical rally ran out of steam, the market stalled and then post-COP15 came off as those that bought the promise of COP15 sold the fact. Prices then had a few weeks of limited liquidity as Europe entered the holiday period and more or less closed in line with the post-Copenhagen fall.

The notable elements of EUA price developments over 2009 are outlined below.

Industrial output down 15% y/y

The Dec 09 contract traded at an average price of  $\leq$ 13.37, a 40% reduction on the average 2008 price (22.35  $\leq$ /t), reflecting the sustained impact that the economic recession has had on prices. We are forecasting that industrial output across the EU-27 will be 15% down y/y, although this does hide some of the big y/y reductions seen in some sub-sectors such as steel which saw a 37% fall in output y/y over the first 10 months of the year. Such industrial length has weighed heavily on the carbon markets all year.

Power demand also down y/y

2009 was also a year of low emissions from the power sector. EU-27 power demand down an estimated 8.5% y/y. Within that, thermal generation also fell given better hydro and wind availability in most regions, with the exception of the Nordic countries which actually saw a fall in hydro. Within the thermal generation sector, the very weak gas market that saw the Dec 09 NBP contract shed 50% of its value over the year, meant gas generation remained in the money for most of the year. The weak gas market was driven by low European demand, and a counter-cyclical increase in supply driven by a significant increase in LNG regassification capacity in the UK. What this meant was that gas-generation tended to be used more than coal in terms of y/y reductions, providing a further reduction in European emissions.

We expect 2009 will be 129 Mt long

The curtailment in economic activity and the falls in power sector emissions in the market have had the impact of shifting expectations on market balance to be one of persistent length in the market. The year closes with our expectations being that 2009 will be 129 Mt long (allocations exceeding emissions) and that the phase will be 224 Mt long. The fact that the expected annual and phase length did not completely collapse the market was testament to the importance of utility hedging patterns against some reluctance on industrial's to sell. In terms of the utilities, the fact that they remain short of allowances in aggregate and that they hedge a number of years in advance, means that there has been a fairly good buy side in the market this year. On the sell side, industrial reluctance to sell at lower prices has been driven by expectation of post-2012 shorts, the ability to bank surplus

Q4 brought little sustained selling of industrial length

allowances and also an improvement in underlying credit markets. Given the combination, prices remained fairly range bound across the year with few excursions outside of the 13-15 €/t range. When prices started to fall below that, the sell side started to evaporate and when prices went higher, this helped bring some more of that industrial length into the market.

As the year end approached, one of the questions was would we see some sustained Q4 selling from industrials given that 2009 was a difficult year for output and that by Q4, industrials would have a fairly clear view of their annual emissions. With industrials having considerable length and having had a tough trading environment in 2009, underlying profitability could be enhanced with sales of surplus EUAs. Interestingly, there was little evidence of any greater sustained industrial selling in the market in Q4 than we saw earlier in the year. With a Q4 average price of 13.72 €/t, there was little in price performance to set this quarter apart from the preceding two. As such, the answer was clear that industrial length did not come to market in any greater sustained level than we saw in the preceding six months. The reasons were:

- The market for credit improved drastically for most industrial participants. In Q4 08 and Q1 09, cement and steel sectors saw the price of credit default swaps for companies in this sector average well above 1000 basis points (10% above the cost of borrowing), and did hit 3000 for steel. What this meant practically was that these companies had no access to credit at this time and therefore were all anxious to monetise EUAs as quick as possible. At this time, some installations were selling off even more EUAs then were strictly needed, and covered their short position by borrowing from future year allocations.
- Post-2012 shorts remain uncertain and what remain as being seen as a relatively low price for EUAs may have discouraged some selling for any installations that expect that they may need to buy them back sometime in the future.
- Industrials have been continuously selling into the market length and this has helped keep prices within range. Without such sell side in the market, the price for EUAs would have been higher than what we saw in 2009.

The EUA market traded with super-contango levels across the curve

The level of contango in the market was consistently stronger this year then seen in any previous years. While the EUA price had traded along the curve through much of 2009 at a discount to the underlying cost of borrowing (Euribor), the curve traded in super-contango for all of 2009, trading at good premiums to the Euribor rate. Looking at the EUA 09-12 spread, this spread started the year trading about 100 basis points above Euribor (1%) and quickly traded up to 500bp above by March. This was largely driven by participants taking advantage of the "repo" trade under which EUAs delivered in 2009 were sold and then the short was covered by buying these back in 2012. The difference in the 2009 sell price against the 2012 buy price is the implied interest rate on this trade. With the improvement in the credit markets, the need to access such collateralised financing reduced and the contango levels fell back and spent most of Q4 trading in the 200-300bp premium range. We expect this level of contango, in line with the underlying credit markets, to be a feature of the market.

sCERs had a similar year, trading down 32% y/y

Prices of sCERs had a similar pattern as for EUAs, with an 11.8  $\in$ /t average price for the Dec 09 contract trading 32% below the 2008 average (17.29  $\in$ /t). The EUA-CER spread remained narrow, averaging 1.56  $\in$ /t (70% below the 2008 average) with limited upside to the EUA price keeping that spread tight while the very low levels of CER issuance seen through the year (see discussion under CDM) helped keep CER prices comparatively well supported. Of all closing values of the prompt spreads, 82% of these were less than 2  $\in$ /t in

2009, although at no time did the spread go negative despite the issuance problems, confirming our long held conviction that such a negative spread is highly improbable.

# The market outlook: Weakness in Q1 but then better

The phase looks long by 224 Mt

While the economic outlook has shown signs of moderately improving in the EC, economic activity in 2010 will still be down on 2008 levels, only recovering around 1.6% against a 2009 contraction of 3.9%. Given this, our forecast for the phase sees a long market out to 2012, with the competing factors of an improvement in economic outlook being more than offset by bigger than expected reductions from the power sector. We are forecasting that:

- Out to 2012, the market is long EUAs, by some 224 Mt a slight reduction in length from our previous report (-238 Mt). 2013 is a net short of 170 Mt. The estimates of market balance for the phase are sensitive to the levels of economic growth assumed and the speed of recovery in Europe through the coming three years. Our estimates of the speed of recovery are for a very moderate pace of recovery over the coming years;
- Although emissions begin to increase in 2010, due to moderate economic growth, the relatively low level of industrial output will keep those emissions increases in check. The net long position in the market increases in that year due to the increase assumed in the cap, with more NER being allocated to new power sector installations.

## EU ETS phase 2 supply and demand balance

	Phase 1	2008	2009	2010	2011	2012	Phase 2
EUA Allocation (cap)	2107	2003	2065	2083	2099	2490	10741
Emissions	2071	2119	1937	1988	2037	2437	10517
Emissions – cap	-36	116	-129	-96	-62	-54	-224

Note: phase 1 = annual average, 2007 emissions = 2165 Mt. Source: CITL, Barclays Capital

#### Price dynamics: EUAs

Our forecasts prices have increased for Q1 2010

The Q1 10 story is now one of industrial length versus utility buying driven by what looks to be a much colder than expected start to the new year. We continue to expect to see some industrial selling finally manifesting itself in Q1 2010, although even here there are two opposing dynamics:

- The credit position of the industrials has improved drastically while order books are seeing modest improvement (still down on last year). The underlying conservative nature of the smaller industrial participants, and the free nature of the EUAs that are often maintained on the balance sheet at zero value, may lead to "passive banking" and may conspire to keep this length off the market. This will be price sensitive and we would think any price movements up towards the 15 €/t area will be met with some additional industrial volumes coming for sale.
- The industrials certainly have more length, with industrial output some 17% down on last year, and while credits is much better, it is still not where it was before the financial crisis of last September. As such, in a bad year for underlying business performance, the ability to boost bottom lines and profitability will still be there to stimulate some selling.

The big issue here is will long industrial's look at any weakness in current prices (sub-14  $\in$ /t) and decide that they may be too low to tempt them to cash in current volumes – to dehedge in effect. If there is a real concern that cashing in today at the low is going to mean having to buy more at much higher prices in a few years time, the keeping of the significant

length we still think is out there, off of the market, could provide better price support than we have been expecting.

The cold start to 2010 and forecasts that these colder than normal temperatures could last for all of January is the other factor that should provide price support. The cold weather: increases power demand for any space heating done through electrical heaters, increasing the need for thermal generation; and it has a strong impact on the price of gas, making coal more competitive and increasing the emissions levels from the total level of thermal generation. Both of these bring the utilities into the buy side and will help provide some greater price support to absorb some of the industrial length.

Other sources of dynamics in the market will be the Member States auctions of allowances, although the weekly and monthly sales by Germany and the UK, given the volumes to be auctioned, are only likely to have a moderate impact on the market.

Despite an expected low in prices in Q1, 2010 should see stronger prices

Given these competing features, we are revising our price forecasts for Q1 10 upwards by around 4%, to 12.0  $\[ \in \]$  /t. We have refined our 2010 quarterly prices, looking at a gradual improvement in prices over the year with 2H10 prices forecast to average 15  $\[ \in \]$  /t. Our annual 2010 strip forecasts has been refined to an average out-turn of 14.0  $\[ \in \]$  /t – a modest 6% increase on 2009 out-turn prices y/y.

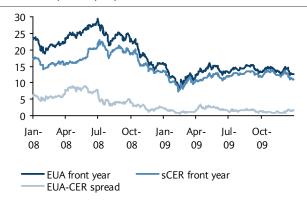
COP15 was priced in quickly

The broad failure of the Copenhagen climate conference immediately was priced into the market, with prices dropping about 8% on the Monday (21 December 2009) following the conference. With the Copenhagen Accord having been short on detail, the practical impact on the market has been limited. While the market continues to trade on an expectation of 20% targets, a decision in January by the EU to increase the target level would provide some support. However, we do not expect the EU will move to a 30% target, given the difficulty in securing EU-wide agreement and the question over exactly which participants will increase the level of targets as a result of such a move.

We are forecasting that 2010 to trade similar to 2009, but do expect to see some better price support in 2H as power sector hedging of 2013 positions will begin a bit more in earnest. This hedging support for prices will be felt even stronger in 2011 and 2012 as power for delivery in 2013 gets sold in much greater volumes. This is of particular importance as the power sector will be looking at a much tighter sectoral cap and, in Western Europe at least, an end to free EUA allocation.

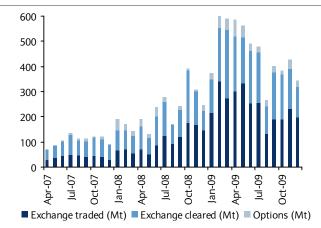
## Carbon market charts

## EUA and CER prices (€/t)



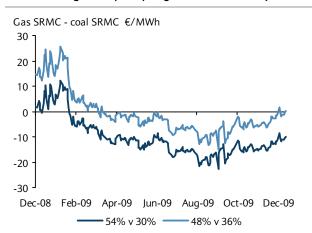
Source: ECX, Barclays Capital

## **EUA Traded volumes (Mt)**



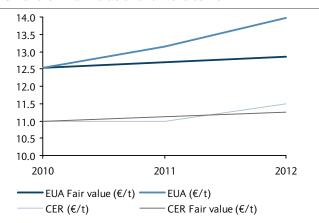
Source: Barclays Capital

### Fuel switching at the prompt - gas still in the money



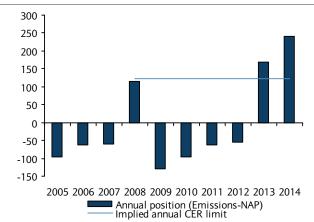
Note: First number refers to assumed level of CCGT efficiency while second number refers to assumed level of coal-fired plant efficiency. Figures include CO2 cost and gas price (UK NBP) and coal (API-2). Source: Ecowin, ECX, Barclays Capital

#### EUA and CER fair value and forward curve



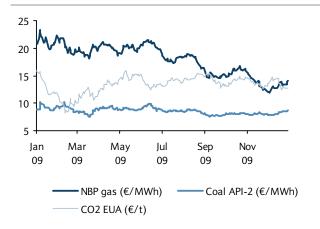
Note: Fair value calculation takes the current DEC 2009 price and applies the cost of carry at Euribor to derive a DEC 12 price. Source: ECX, Barclays Capital

# EU ETS Annual gap to cap (Mt CO<sub>2</sub>)



Note: Calculation looks at the implied interest rate between DEC 2009 to Dec 12 price and compares to a cost of carry at Euribor. Source: ECX, Ecowin, Barclays Capital

### Cross-commodity energy price movements



Note: LHS axis for Brent and Coal, RHS axis for EUA. Source: Ecowin, Barclays Capital  $\,$ 

# **APPENDIX 1: BENCHMARKING**

European Renewables benchmarking – Top third

European Kenewabies benchmarking -	rop ama											
		SMA	Vestas	Outotec	Meyer Burger	Phoenix	Gamesa	CentrothermS	olar Millennium	Wacker	Abengoa	Roth & Rau
Financial (75%)												
Growth												
EPS growth	12.5%	7	6	2	5	5	4	7	10	4	9	3
Sales growth	12.5%	8	7	1	5	8	3	8	10	3	9	3
Profitability												
ROCE	12.5%	10	9	10	10	9	8	7	9	7	7	6
Operating margin expansion	12.5%	4	7	5	5	3	8	6	0	8	6	5
Cash flow generation												
WC/Sales	8.3%	7	7	8	5	6	7	5	9	8	9	3
OP cash flow to sales	8.3%	8	3	4	3	1	3	1	6	6	4	5
Free cash flow to sales	8.3%	10	6	9	8	7	8	5	4	6	2	9
Balance sheet												
Net Debt/EBITDA	8.3%	9	7	9	9	8	8	6	5	5	1	10
Net gearing	8.3%	10	7	10	9	8	8	9	4	5	0	10
Asset turnover	8.3%	7	6	10	9	10	8	8	8	4	5	9
Competitive position (15%)												
Geographical diversity	3.8%	4	10	8	2	4	6	4	2	10	8	6
Customer diversity	3.8%	10	10	10	4	10	4	8	2	10	10	2
Technology leadership	3.8%	10	10	10	10	6	8	10	4	10	8	6
Market/Pricing power	3.8%	8	8	8	6	10	2	6	8	10	10	6
Investability (10%)												
Accounting standards	2.5%	7	7	7	7	3	7	5	3	7	5	3
Disclosures	2.5%	10	10	10	4	10	6	8	2	10	6	4
Free float	2.5%	4	10	10	10	10	8	4	6	4	6	10
Average Daily volume	2.5%	8	10	8	6	4	10	6	4	10	8	6
Total benchmarking score (Out of 10)		9.4	8.6	8.3	8.1	7.9	7.8	7.7	7.5	7.5	7.2	7.2
Relative ranking (Out of 32)		1	2	3	4	5	6	7	8	9	10	11
Recommendation		OW	OW	OW	EW	OW	EW	OW	EW	OW	OW	EW

Source: Barclays Capital

# European Renewables benchmarking – Middle third

		Repower	Hansen	Terna Energy	Greentech	Clipper	EDP R	IBR	AMG	Nordex	Solaria	SolarWorld
Financial (75%)												
Growth												
EPS growth	12.5%	5	8	7	9	10	8	6	8	3	9	3
Sales growth	12.5%	6	7	7	10	4	9	6	0	5	2	5
Profitability												
ROCE	12.5%	8	5	5	1	1	2	3	4	6	4	6
Operating margin expansion	12.5%	7	7	9	10	10	3	1	6	4	9	2
Cash flow generation												
WC/Sales	8.3%	4	3	5	9	6	10	10	3	6	0	0
OP cash flow to sales	8.3%	2	5	10	9	0	10	10	4	1	7	8
Free cash flow to sales	8.3%	5	5	1	0	2	0	1	8	4	7	3
Balance sheet												
Net Debt/EBITDA	8.3%	6	3	7	2	10	2	5	3	4	4	6
Net gearing	8.3%	6	4	6	3	2	3	4	6	7	5	7
Asset turnover	8.3%	9	3	1	0	10	0	1	6	7	4	3
Competitive position (15%)												
Geographical diversity	3.8%	10	8	2	6	2	6	6	10	10	2	6
Customer diversity	3.8%	8	4	4	2	2	6	6	6	8	4	8
Technology leadership	3.8%	8	8	2	2	6	4	4	6	4	2	6
Market/Pricing power	3.8%	4	6	8	4	2	10	10	2	4	4	8
Investability (10%)												
Accounting standards	2.5%	5	7	5	3	3	3	5	3	5	3	3
Disclosures	2.5%	6	8	2	4	2	10	8	2	6	2	6
Free float	2.5%	2	8	4	8	2	2	2	8	6	4	8
Average Daily volume	2.5%	2	4	2	2	2	6	10	8	6	4	10
Total benchmarking score (Out of 10)		7.1	6.8	6.8	6.5	6.2	6.1	6.0	6.0	5.9	5.9	5.7
Relative ranking (Out of 32)		12	13	14	15	16	17	18	19	20	21	22
Recommendation		EW	OW	EW	UW	EW	OW	OW	UW	EW	UW	EW

Source: Barclays Capital

13 January 2010

# European Renewables benchmarking – Bottom third

	_	Theolia	EDF EN	Suzlon	PV Crystalox	Manz	REC	Conergy	Acciona	Q-Cells	Solon
Financial (75%)											
Growth											
EPS growth	12.5%	2	6	4	1	1	1	10	2	0	0
Sales growth	12.5%	10	6	4	2	1	9	1	0	4	2
Profitability											
ROCE	12.5%	2	3	5	8	2	4	1	3	0	0
Operating margin expansion	12.5%	10	8	4	0	2	1	9	2	1	3
Cash flow generation											
WC/Sales	8.3%	1	2	4	1	0	2	1	8	4	2
OP cash flow to sales	8.3%	9	9	2	6	7	8	2	7	5	0
Free cash flow to sales	8.3%	9	1	7	3	10	2	4	10	3	6
Balance sheet											
Net Debt/EBITDA	8.3%	0	0	1	8	7	2	4	0	3	1
Net gearing	8.3%	1	1	1	8	9	3	0	2	5	2
Asset turnover	8.3%	2	1	5	4	7	2	5	2	3	6
Competitive position (15%)											
Geographical diversity	3.8%	4	6	8	4	4	8	8	2	8	4
Customer diversity	3.8%	4	6	8	6	2	8	6	10	4	2
Technology leadership	3.8%	2	4	6	8	4	8	2	6	4	2
Market/Pricing power	3.8%	2	10	4	6	6	4	2	8	2	2
Investability (10%)											
Accounting standards	2.5%	3	5	5	7	5	3	3	3	3	3
Disclosures	2.5%	4	4	8	6	4	8	2	4	10	2
Free float	2.5%	8	2	6	6	6	10	4	4	8	6
Average Daily volume	2.5%	4	6	8	4	4	10	6	8	8	2
Total benchmarking score (Out of 10)		5.6	5.2	5.1	5.1	5.1	5.0	4.8	4.4	3.8	2.7
Relative ranking (Out of 32)		23	24	25	26	27	28	29	30	31	32
Recommendation		EW	EW	OW	OW	UW	OW	EW	EW	EW	UW

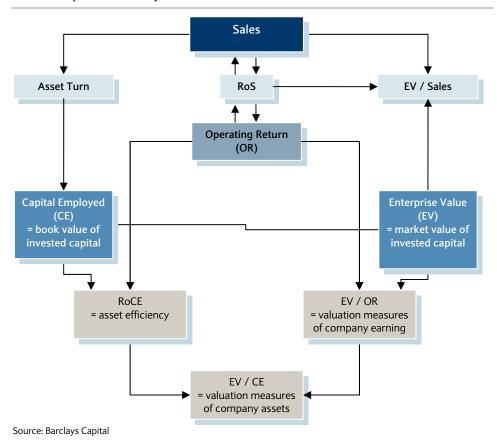
Source: Barclays Capital

## APPENDIX 2: EUROPEAN RENEWABLES VALUATION MODEL

Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first period recognises the higher-growth period defined as a specific number of years, an operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high-growth period. The second period is for normalised margins of a more steady state business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the 'fair value' multiple under a given set of variable assumptions.

Our approach to the valuation of renewables companies finds limited relevance in the use of P/E or P/E relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other unusual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define return on capital employed (ROCE). We believe that by representing the total commitment of capital by management, capital employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

## Relationship between analysis and valuation



The figure below shows how our analytical and valuation tools are linked inextricably to this concept. With the use of our uniform pan-sector definitions of EV, CE and OR, we derive our EV/OR and EV/CE valuation methodology.

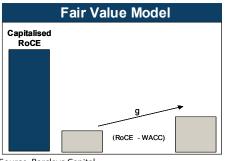
## **Barclays Capital Renewables Valuation Model**

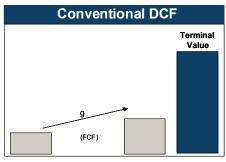
## Standard EVA approach is...

```
EV = taxed OR + (Trend Sales * Sales Growth * Target ROS) - (Trend CE* CE growth* WACC) * CAP WACC * (1+ WACC)

MV = EV - total liabilities
```

## ... which front-loads rather than back-ends valuation





Source: Barclays Capital

Our Barclays Capital Renewables valuation model, depicted above adopts a similar technique associated with Miller-Modigliani/EVA $^{\text{TM}}$  and analyses by valuing a company as the sum of the value of the cash flow of its assets now in place, plus the value of its growth opportunities.

## Share price performance



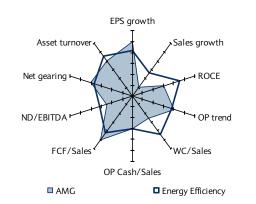
Source: Barclays Capital, FactSet

# Historical valuation (EV/EBIT)

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## Source: Bloomberg, FactSet, Barclays Capital

Financial Benchmarking



Source: Factset, Barclays Capital

#### AMG (3-UW, €5 PT)

AMG's business interests continue to suffer from the weak economic conditions and the diverse segments to which the group is exposed. Over the course of the year, we expect the company to focus on improving corporate governance at the group level and perhaps conduct a strategic review to allow core units to better operate in their markets. With respect to AMG's interest in Timminco, the manufacturer of UMG, we believe the outlook continues to remain weak given the improved availability of high quality polysilicon from major manufacturers. However, some major solar companies continue to believe in the potential of UMG and as a result the business may have medium-term strategic value. As solar PV demand grows and capital expansion returns to the sector, AMG's sales of furnaces (including some on a proprietary basis) is likely to return. In the meantime, for existing businesses destocking and lower inventory levels need to be offset before the company sees a significant rebound in non-solar related businesses.

#### **Bulls and Bears**

#### Bulls

- Well positioned for long-term growth in regard to CO2 reducing technologies, such as solar, recycling, fuel efficiency and nuclear
- Technology expertise and ongoing progress on improving Upgraded Metallurgical Grade Silicon (UMGSi) quality
- Management focus on adjusting production, limiting capital investment and costreduction program to preserve cash flow and liquidity

#### Bears

- Technology risks regarding acceptance of UMG given greater availability of high quality material from Tier 1 suppliers
- The outlook for the sales of solar furnaces is contingent on improvements of funding for solar photovoltaic capex
- AMG's shareholding in Timminco fell below 50% in 2009 following the companies' rights issues

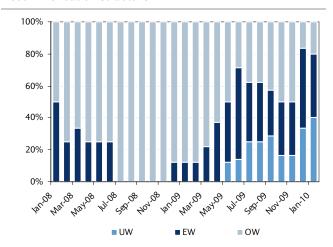
## Earnings estimate and company guidance

FY Dec, US\$	2007	2008	2009e	2010e	2011e
Revenue (mn)	1,155.7	1,517.9	848.8	854.1	854.9
EBIT (mn)	84.2	75.2	25.8	44.2	49.6
Margin (%)	7.3%	5.0%	3.0%	5.2%	5.8%
EBITDA (mn)	102.8	106.5	61.4	81.6	84.5
EPS	0.67	0.67	0.55	0.95	1.46
Consensus					
Revenue (mn)	587.8	585.3	658.5	587.8	585.3
EBIT (mn)	20.7	28.4	45.0	20.7	28.4
EBITDA (mn)	46.5	50.3	65.9	46.5	50.3
EPS (US\$)	-14.3	8.0	27.5	-14.3	8.0

Guidance: na

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: Barclays Capital, FactSet

## Divisional/group forecast

FY Dec, US\$ mn	2008	2009e	2010e	2011e
Sales				
Materials	688	995	405	421
Engineering	312	435	331	314
EBIT margin (%)				
Materials	1.8%	3.2%	4.6%	-7.3%
Engineering	14.7%	20.0%	19.2%	15.9%

#### Calendar

■ 17 Mar 2010: Full-Year 2009 Results

■ 12 May 2010: Q1 2010 Results

■ 12 May 2010: Annual General Meeting

■ 11 Aug 2010: Q2 2010 Results

■ 10 Nov 2010: Q3 2010 Results

Source: Company data, Barclays Capital

## Sector view: 2-Neutral

- The energy efficiency sector represents a variety of activities which include Biofuels, Smart Grid and Metering, Batteries and other environmental services and technology solutions which reduces energy consumption and carbon emissions.
- Our 2-Neutral view on the sector reflects the mixed business dynamics in energy efficiency sub-sectors. While we are positive on smart metering, energy storage and transmission, we remain cautious on the outlook for the biofuels industry.

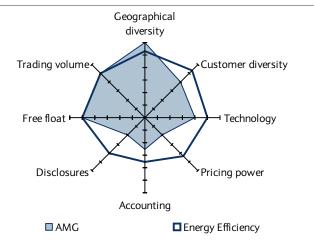
Source: Company data, Barclays Capital

## Price target sensitivity

€		Long term sales growth						
		1.8%	2.3%	2.8%	3.3%	3.8%	4.3%	4.8%
	6.8%	23.4	15.6	7.8	0.1	na	na	na
nsales	7.3%	24.2	16.7	9.2	1.7	na	na	na
Long term return on sales	7.8%	25.1	17.9	10.6	3.3	na	na	na
	8.3%	26.0	19.0	12.0	5.0	na	na	na
Long 1	8.8%	26.9	20.1	13.4	6.6	na	na	na
	9.3%	27.8	21.3	14.8	8.3	1.7	-4.8	-11.3
	9.8%	28.7	22.4	16.2	9.9	3.6	-2.6	-8.9

Source: Company data, Barclays Capital

## Competitive position and investability benchmarking



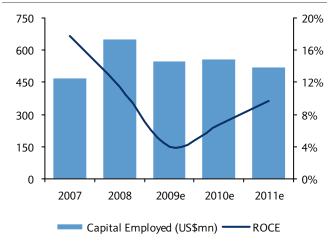
Source: FactSet, Company data, Barclays Capital

## Sales and EBIT



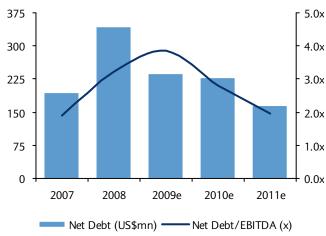
Source: Company data, Barclays Capital

## **CE and ROCE**



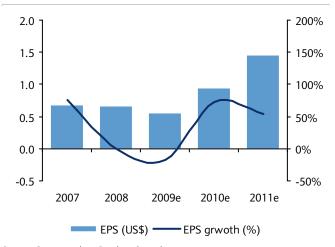
Source: Company data, Barclays Capital

# Net Debt to EBITDA



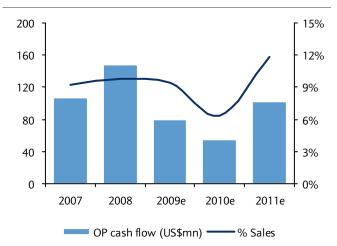
Source: Company data, Barclays Capital

## EPS and EPS growth



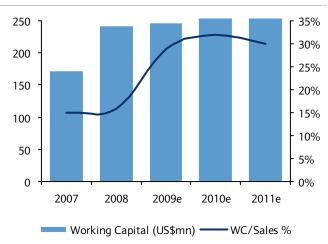
Source: Company data, Barclays Capital

## OP cash flow to sales



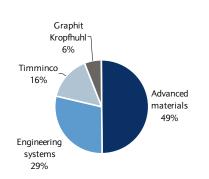
Source: Company data, Barclays Capital

# WC and WC/Sales



Source: Company data, Barclays Capital

#### Divisional revenue breakdown (2008)



# Corporate history

AMG was incorporated in the Netherlands in November 2006. The Advanced Materials unit traces its origins in the development and production of specialty metals to 1911. The Engineering Systems unit traces its origins to the several predecessor companies of ALD Vacuum Technologies GmbH, founded in Germany during the mid-1800s. Over the years, the company has expanded into the UK, Scandinavia, the US, Brazil and France. Timminco Limited, a publicly listed associate and a producer of silicon metal and solar grade silicon, was founded in 1934 and is currently listed on the Toronto Stock Exchange. In September 2007, Timminco, based in Quebec, Canada, one of North America's largest producers of chemical, electronics and solar-grade silicon metal. Over the course of 2009 Timminco was deconsolidated as AMC's ownership dropped below 50% due to Timminco's issuance of additional shares. In 2008, AMG acquired a majority stake in Graphit Kropfmuhl (GK) which produces silicon metal for the solar and the chemical industries.

Source: Company data, Barclays Capital

#### Geographical revenue breakdown (2008)



## Management

Dr. Heinz C. Schimmelbusch, Chairman and chief executive officer, received his doctorate from the University of Tubingen, Germany. He was appointed chairman on 21 November, 2006. Previously he served as a Managing Director at Safeguard International Fund, L.P. since 1998. Prior to that he held a number of positions in the specialty metals industry.

Mr. William J. Levy, CFO, received a BS degree in accountancy from Villanova University, United States. In 1984, Mr. Levy qualified as a certified public accountant with PricewaterhouseCoopers LLP. He was appointed chief financial officer and member of the management board on 1 April, 2007. Prior to that he was the vice-president and chief financial officer of Metallurg Holdings.

Website: www.amg-nv.com

# M&A

2008: Acquisition 79.5% Graphit Kropfmuhl (US\$ 63mn, 12.4x EV/EBITDA)

2008: Acquisition Furnaces Nuclear Application Grenoble (US\$ 4.1mn)

Source: Company data, Barclays Capital

## Shareholder structure

Mar	Market value: €249mn Float						
Тор	Top 10 holders (% shares outstanding)						
1	Safeguard International Management LLC	2	26.6%				
2	Hunter Hall Investment Management Ltd		5.1%				
3	Morgan Stanley Investment Managemen	t	5.1%				
4	Capital World Investors	4.9%					
5	Fidelity Management & Research		4.7%				
6	UBS AG		4.6%				
7	Citadel Investment Group LLC		4.6%				
8	Luxor Capital Group LP		4.3%				
9	ING Investment Management Advisors B	V	2.2%				
10	DnB NOR Kapitalforvaltning ASA		2.1%				

Source: Factset, Barclays Capital

# Accounting issues

Previous patents acquired by AMG's associate Timminco were deemed to have an indefinite life. Management now believe these patents to have a remaining life of 10 years and began amortising patents. For AMG, furnace construction contract revenue is recorded on an estimated percentage of completion of contract where significant management judgement is required to determine this project completion. In 2008, this estimate represents US\$312mn of revenue. AMG acquired GK in 2008 and since this time intangible assets recognised on acquisition of €16.8mn against the carrying value of €10.0mn. AMG uses discount rates of 10.7% and 9.7% in determining recoverable amount for 2008 and 2007 respectively for LSM and the value in use exceeded the carrying value by US\$0.7mn. Safeguard International owns approximately 26% of AMG, one member of the management board of AMG is also a managing director of Safeguard International.

#### Advanced materials and Timminco

The Advanced Materials unit develops and produces niche specialty and complex metals products, many of which are used in demanding, safety-critical, high-stress environments. These products are used by steel, polysilicon, silicones, aluminium and super alloy producers for applications in the aerospace, energy, electronics, optics, chemical, construction and transportation industries. AMG's complex metal products include titanium alloys and super alloys, tantalum and niobium oxides, antimony trioxide, vanadium chemicals, coatings and powders. Through its associate Timminco, AMG produces upgraded metallurgical grade silicon for the solar PV industry. The company has started an ambitious expansion plan with a targeted production capacity of 14.400MT which was reviewed over the course of 2009 driven by operational challenges and changes in market outlook, and direct more focus on Silicon metal.

Key competitors: Dow Corning, Elkem, Globe Specialty Metals, Hemlock, Wacker REC, Tokuyama, Mitsubishi, MEMC, Sumitomo

#### Divisional forecasts



## Key issues

- Polysilicon: Although the economics of UMG silicon appeared attractive in 2007 and 2008 the benefits of UMG have become challenged by the greater availability of high quality polysilicon from Tier 1 suppliers, the material polysilicon ASP decline and the necessary incremental costs related to UMGSi processing.
- Capacity expansion: Despite Timminco's proprietary technology and encouraging volume shipments ramping-up capacity production process at full utilisation and higher purity present a significant challenge to the company in order to realize essential economies of scale.
- Visibility: the market outlook is improving, albeit from low levels. In particular, the company is likely to continue to experience significant challenges in Ferrovanadium, Titanium and Aluminium alloys and implemented cost-cutting initiatives.

Source: Company data, Barclays Capital

## **Engineering systems**

The Engineering Systems unit of AMG designs, engineers and produces advanced vacuum furnace systems and operates vacuum heat-treatment facilities. AMG's Engineering Systems unit supplies customers in the aerospace, energy (solar-PV, nuclear, etc.), transportation, electronics, and specialty steel industries. In the Solar industry, the company supplies furnace technology for the melting and crystallization of solar grade silicon ingots. The company's customer includes REC, Q-Cells, Elkem, Renesola, BP Solar, Motech and Photowatt. In Aerospace/Fuel Efficiency, the company supplies furnaces for the purification of titanium and other weight-advantaged metals for aerospace applications. In addition, the company provides heat treatment for surface hardening of high efficiency transmission gears. In Nuclear, the company supplies sintering furnaces, spare parts for Nuclear fuel production as well as develops furnace and process technology for graphite coating used to create pebble bed reactor.

Key competitors: GT Solar, Centrotherm

# Divisional forecasts



Source: Company data, Barclays Capital

# Key issues

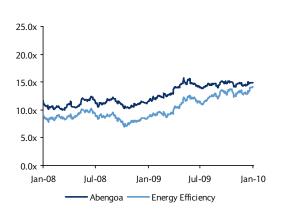
- Order intake has significantly deteriorated in 2009 mainly as a result of customer's decision to defer investment decisions, in particular for DSS furnaces used in the solar industry. The outlook for DSS remains uncertain with some demand coming from China.
- Outlook: the company has implemented a labour-reduction program; expect to cut labour costs by 10% with no additional one-off charges. Management anticipates unfavourable market dynamic going into 2010, with recovery expected in H2 2010.

#### Share price performance



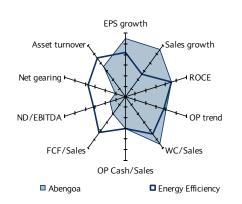
Source: Barclays Capital, FactSet

## Historical valuation (EV/EBIT)



Source: Bloomberg, FactSet, Barclays Capital

## Financial benchmarking



Source: Factset, Barclays Capital

#### Abengoa (1-OW, €28.5 PT)

ABG has positioned the company successfully to benefit from investment in renewables and its exposure to solar is one area that we view as significant driver of future earnings. The company reports projects in a manner that does not fully reflect its exposure to the sector, which we believe is much higher than its reported numbers suggest based upon existing divisional classifications. The company placed a €300mn bond which management has indicated is to be used to significantly grow ABG's solar CSP exposure through projects in the United States and Spain. In addition, the company has exposure to Environment Services (recycling) which represented approximately 16.8% of revenues in the first nine months of 2009. The company has exposure to biofuels (bioethanol and biodiesel), which we are more cautious on as a result of expectations of margins across the economic cycle and the negative public and policy perceptions to the space. We believe as part of a potential strategic review of ABG, the bioenergy segment will be limited significance in the future

#### **Bulls and Bears**

#### **Bulls**

- Attractive position in the solar CSP business with 31MW under operation, 150MW in construction and 1.2GW pipeline in the US and Spain
- Presence across the value chain gives significant advantage in project development, particularly in technology and construction
- Order backlog positively developed in 2009 driven mainly by the Solar, Transmission and Water treatment and provide high visibility on 2010

#### Bears

- Financing availability and uncertainty on both timing and outcome of loan guarantee applications could limit solar growth in the US.
- Exposure to biofuels where we believe significant uncertainty remains on the outlook for supply demand, pricing and regulatory support

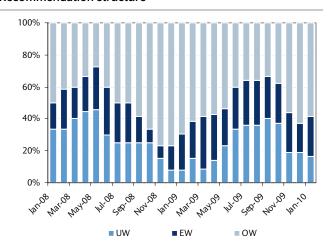
## Earnings estimate and company guidance

FY Dec, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	2,656	3,115	4,057	4,959	5,984
EBIT (mn)	233	296	357	472	607
Margin (%)	8.8%	9.5%	8.8%	9.5%	10.1%
EBITDA (mn)	323	459	546	696	866
EPS	1.33	1.55	1.51	2.37	3.35
Consensus					
Revenue (mn)			4,061	4,777	5,266
EBIT (mn)			412	482	588
EBITDA (mn)			601	710	845
EPS (€)			1.80	1.97	2.60

Guidance: na

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: Barclays Capital, FactSet

## Divisional/group forecast

FY Dec, € mn	2008	2009e	2010e	2011e
Sales				
Solar	17.7	65.0	119.0	227.1
Bioenergy	613.7	830.1	855.5	1334.8
Environment	769.7	873.4	709.6	881.1
EPC	1485.4	2040.6	2428.3	2671.2
Telvent	0.0	0.0	850.0	935.0
EBIT margin (%)				
Solar	57.0%	14.2%	25.0%	30.0%
Bioenergy	8.8%	10.9%	8.5%	8.7%
Environment	12.6%	18.1%	14.5%	14.9%
EPC	10.9%	11.6%	13.1%	13.4%
Telvent	na	na	14.1%	14.1%

Source: Company data, Barclays Capital

## Price target sensitivity

€	Long term sales growth							
		2.5%	3.0%	3.5%	4.0%	4.5%	5.0%	5.5%
Long term return on sales	8.5%	24.6	24.1	23.6	23.1	22.6	22.1	21.6
	9.0%	25.7	25.4	25.2	24.9	24.6	24.3	24.0
	9.5%	26.8	26.8	26.7	26.7	26.6	26.6	26.5
	10.0%	28.0	28.1	28.3	28.5	28.6	28.8	29.0
	10.5%	29.1	29.5	29.9	30.3	30.6	31.0	31.4
	11.0%	30.2	30.8	31.4	32.0	32.7	33.3	33.9
	11.5%	31.3	32.2	33.0	33.8	34.7	35.5	36.4

Source: Company data, Barclays Capital

#### Calendar

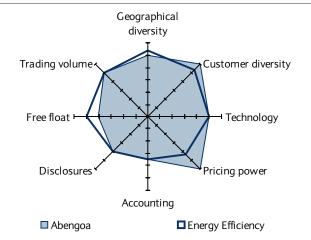
Results date not yet available

Source: Company data, Barclays Capital

## Sector view: 2-Neutral

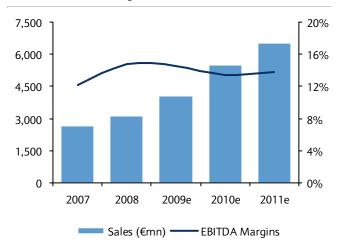
- The energy efficiency sector represents a variety of activities which include Biofuels, Smart Grid and Metering, Batteries and other environmental services and technology solutions which reduces energy consumption and carbon emissions.
- Our 2-Neutral view on the sector reflects the mixed business dynamics in energy efficiency sub-sectors. While we are positive on smart metering, energy storage and transmission, we remain cautious on the outlook for the biofuels industry.

# Competitive position and investability benchmarking



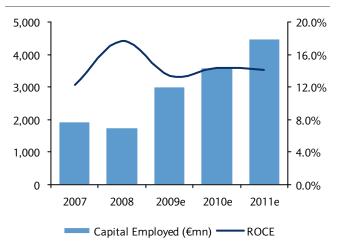
Source: FactSet, Company data, Barclays Capital

## Sales and EBITDA margin



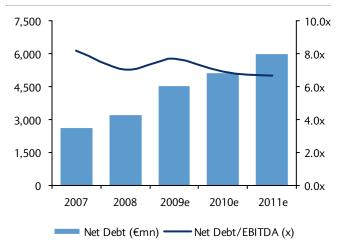
Source: Company data, Barclays Capital

## **CE and ROCE**



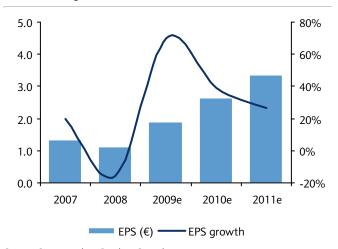
Source: Company data, Barclays Capital

# Net Debt to EBITDA



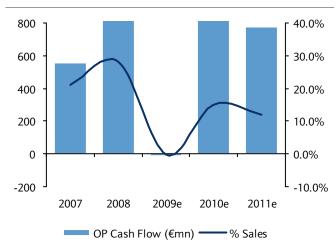
Source: Company data, Barclays Capital

## EPS and EPS growth



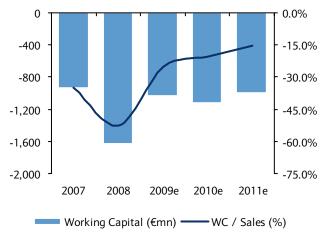
Source: Company data, Barclays Capital

## OP cash flow to sales



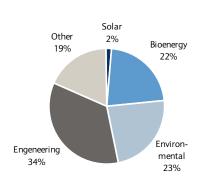
Source: Company data, Barclays Capital

# WC and WC/Sales



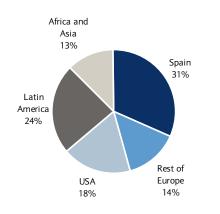
Source: Company data, Barclays Capital

#### Divisional revenue breakdown (2008)



Source: Company data, Barclays Capital

# Geographical revenue breakdown (2008)



Source: Company data, Barclays Capital

# Shareholder structure

Mari	ket value (€ 3.1bn)	Float	42%							
Тор	Top 10 holders (% shares outstanding)									
1	Inversion Corporativa		56.0%							
2	Allianz Global Investors		1.3%							
3	BlackRock Investment Management		1.1%							
4	Impax Asset Management Ltd.		1.0%							
5	Aplicaciones Digitales SL		1.0%							
6	BENJUMEA LLORENTE FELIPE		0.9%							
7	DWS Investment GmbH		0.9%							
8	Norges Bank Investment Management		0.8%							
9	UBS Global Asset Management		0.6%							
10	Delta LLoyd Asset Management		0.5%							

#### Corporate history

On 4 January 1941, Javier Benjumea Puigcerver and José Manuel Abaurre Fernández-Pasalagua, both engineers at the Catholic Institute of Art and Industry (ICAI), founded the Sociedad Abengoa, S.L., a company in Seville. The company diversified its horizons in 1943, focusing on technical projects and studies, as well as electrical installations. Between 1941 and 1950, Abengoa began to develop its first activities and started expanding throughout Andalusia. Over the next 20 years, it pursued an aggressive strategy of expansion throughout Spain and international markets. Beginning in 1990, Abengoa focused its development and innovation on the segments of information technology, renewable energy sources, biofuels, and environment. Since then, Abengoa has been able to reorganise its business activities and update its organisational structure, taking on a more flexible strategy, with the capacity to adapt itself to the evolution in new markets. The current organisation comprises the following business groups: Solar, Bioenergy, Environmental Services, Information Technologies and Engineering and Industrial Construction.

#### Management

Felipe Benjumea Llorente (CEO and Chairman of the Board of Directors) has a Degree in Law from the University of Deusto. He joined Abengoa in 1983 as member of the Board of. Since 1991, he has been the CEO of Abengoa and Chairman of the Board of Directors. Felipe Benjumea Llorente is also chairman of Inversión Corporativa IC, S.A. since July, 2008, board member of the operating company of the Spanish Electricity Market (OMEL), the Spanish Energy Club, the Technology and Science Advisory Board of the Ministry of Education and Science and the Board of Iberia.

Amando Sanchez Falcon (Financial Director) Amando Sanchez Falcon has a Degree in Economics from the Universidad Autonoma de Madrid. He joined Abengoa in 1998, holding several positions in the Finance Department, where he collaborated in the financing and development of numerous energy and infrastructure projects across the world. From 2002, he served as CFO of the Bioenergy Business Unit and in 2003 became Finance Director.

#### Accounting issues

In applying impairment tests for all assets, the company applies discount rates of between 6-10% for cash generating units. The company has long-term, non-recourse financing of  $\{0.65,0.00\}$  which  $\{0.00,0.00\}$  is net of cash. Tax deductions from research and development as well as export activities over the last two years have been over  $\{0.00,0.00\}$  within local legislation.

#### M&A

2009: sold 22% stake in Telvent (US\$100mn - 1x LTM EBITDA)

Source: Factset, Barclays Capital

#### Solar

Abengoa Solar develops projects in both Concentrating Solar Power (CSP) and Photovoltaic (PV) technologies. In CSP, the division is involved in the promotion, construction and operation of CSP plants. The company builds its own central receiver systems, collectors as well as customised industrial installations and has plants under development in Spain, Northern Africa, the Middle East and the US. The division also executes photovoltaic installations for industrial and commercial building roofs. Abengoa Solar manufactures equipment for both CSP and PV projects including heliostats, parabolic trough collectors, curved mirrors and high concentration photovoltaic systems. The company is actively investing in research and development for solar and has set up R&D centres in Madrid, Seville and Denver. The company has 31MW of tower projects in operation and 150MW under construction in Spain and 600MW under development. Within the US, the company has signed PPAs for a 280MW project with Arizona Public Services and last week also signed a PPA with PG&E for a 250MW project. Both of these projects require funding with the expectation for projects to begin construction in 2010.

Key issues

Key competitors: Ausra, BrightSource, Solel

#### Divisional forecasts



- Financing of CSP Projects: CSP currently enjoys favourable policy support in key solar markets and the company has been successful in securing 530MW of PPAs in the US with PG&E and Arizona Public Services. The financing environment for large scale projects remain limited, however the company has made a loan guarantee application under the ARRA and the company anticipate its 280MW project in the US to be the first CSP project to benefit from the scheme.
- Scale of Solar Tower Projects i: Solar tower technology offers attractive economics though has limited scalability as heliostats cannot be placed too far away from the tower. In addition, the positioning of individual heliostats has to be constantly monitored as any change in inclination is likely to cause multiple heating points on the surface of the tower which may damage it. However, the company is also developing projects based on parabolic trough technology which offers significant potential to scale projects.

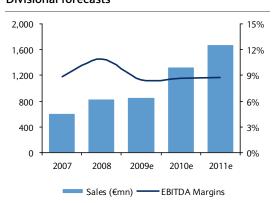
Source: Company data, Barclays Capital

#### Bioenergy

The Bioenergy division is involved primarily in the production and marketing of biofuels. Abengoa benefits from being one of the only biofuel producers with a presence in both the US and Europe. The company has developed significant expertise in raw material procurement through direct supply agreement with farmers. In addition, the company is actively involved in trading of bioethanol, DGS and sugar. Abengoa Bioenergy currently owns 10 bioethanol, biodiesel and DGS-producing plants in Europe, US and Brazil with a total installed capacity of approximately 390mn gallons per year. Abengoa is also actively involved Research and Development of second generation biofuels and is considering setting up a pilot plant in the US in 2010. In 2010, the company plans to start operation of two plants in the US and one in Rotterdam, the largest in Europe.

Key competitors: Biopetrol, D1, BP, Shell, Neste

# Divisional forecasts



Source: Company data, Barclays Capital

#### Key issues

- **Policy support**: We believe policymakers and regulators will work to define more closely which renewable sources to support. We think that wind and solar are likely to benefit whereas biofuels are less likely to enjoy support.
- Margin development: Abengoa uses conventional feedstock such as cereals, corn and sugarcane to produce biofuels. This may lead to significant volatility in margins for the division as variations in oil prices may not be compensated by equivalent changes in other commodity prices.

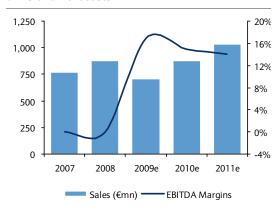
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#### **Environmental services (Befesa)**

Befesa specialises in the management of industrial waste and generation, transportation and management of water. The company also offers technology and construction services for water infrastructure. Befesa manages approximately 2.6MT of waste and recycles more than 1.3MT to create new materials. In addition, the company has the capacity to desalinate more the 1 million cubic metres of water a day. The company also offers services in aluminum and steel recycling. While its traditional waste management business had been negatively impacted in 2009 by low Aluminium and Steel demand, the company had diversified its product offering to increasingly focus on water management projects, in particular desalination. The company is currently constructing four desalination plants in India, Algeria and China.

Key competitors: Veolia, Suez, Schlumberger, Outotec, Energy Recovery, Acciona

#### Divisional forecasts



# Key issues

 Visibility: Befesa's steel and aluminium recycling businesses may continue to be impacted by reduced demand and lower metal prices.

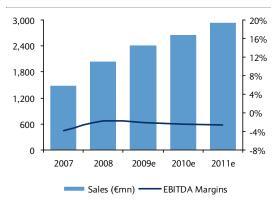
Source: Company data, Barclays Capital

#### Industrial Engineering and Construction (Abeinsa)

Abeinsa specialises in industrial engineering and construction solutions for energy, transportation, telecommunication, industry service and environmental sectors. In the energy sector, Abeinsa provides integrated services by promoting, seeking funding for, engineering, constructing and operating new power plants and industrial facilities with special emphasis on solar, transmission and biofuels. In addition, the company engineers, constructs and maintains electric and mechanical infrastructures. Abeinsa has strong presence in the Latin American market where it has operated and owned transmission lines in Brazil. Abengoa has also established presence in North Africa, Morocco and Algeria. In the near term, Abeinsa seeks to diversify and develop innovative projects linked to sustainable development, including hydrogen technologies, energy efficiency, carbon credits management, CO2 capture and valorisation. The division benefits from increased demand for transmission lines and renewable energy projects. In addition, Abengoa typically maintains ownership of concession projects, delivering scope for recurring revenues over a 20 to 30-year time period, which now represent 49% of the company's gross cash flow. The division has an order backlog in excess of €4bn to be constructed over the next 20 months, which we believe delivers significant demand visibility over the next two years.

Key competitors: ACS Cobra, Acciona

#### Divisional forecasts



Source: Company data, Barclays Capital

#### Key issues

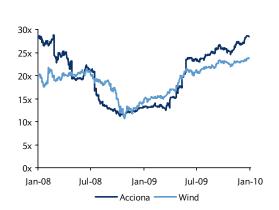
Project risk: The company may be subject to balance sheet risk given the project development nature of its business. However, we accept that this risk is minimised given the non-recourse nature of the debt raised and the use of special purpose vehicles for individual projects.

#### Share price performance



Source: Barclays Capital, FactSet

#### Historical valuation (EV/EBIT)



Source: Bloomberg, FactSet, Barclays Capital

#### Financial benchmarking



Source: Factset, Barclays Capital

# Acciona (2-EW, €105 PT)

ANA enters 2010 with a focus on three key segments – power, infrastructure and water – each of which has a significant renewable or sustainability theme. However, the company has mixed record of communication with the market, with its delayed strategy update (due in 2009) a key example. In addition, the broad range of exposure the group has (which includes logistics and a winery business) also distracts investment community focus away from its core business platform. We believe in order to fully leverage the position of the company in the renewable sector, the company would benefit from divesting non-core business, which management has indicated it will seek to do over the medium term, accelerating investment into wind and solar projects within their power segment and gaining significant exposure to the US wind market which the business currently lacks (75% of existing generation is within Spain). With respect to operations, major catalysts for the company this year will be completion of their two 50 MW solar power plants due to come into service and also the roll out to third-party customers of their prototype 3MW turbine that was first marketed in 2008.

#### **Bulls and Bears**

#### Bulls

- Benefits from in-house wind turbine manufacturing business and infrastructure division delivering EPC expertise for renewable energy projects
- Significant deleveraging of the balance sheet achieved by the sell of Endesa stake to Enel
- High quality wind assets complemented in nature by other renewable sources such as hydro, mini hydro, solar PV, CSP and biomass.

#### Bears

- Relatively limited visibility in pipeline of projects under development in the US wind market relative to peers
- Higher market exposure on Spanish electricity prices fluctuation than main peers who hedged their production for 2010
- Relatively lower capex plans for relative to Tier 1 operators couples with below industry average wind turbine manufacturing capacity utilisation

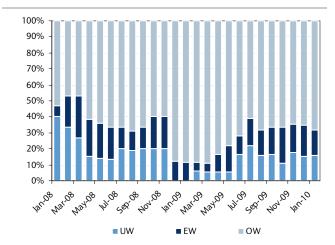
#### Earnings estimate and company guidance

FY Dec, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	7,953	12,665	6,772	7,460	7,953
EBIT (mn)	935	1,678	456	611	935
Margin (%)	11.8%	13.2%	6.7%	8.2%	11.8%
EBITDA (mn)	1,407	2,827	991	1,254	1,407
EPS	14.6	5.9	3.1	4.7	14.6
Consensus					
Revenue (mn)			6,776.3	7,341.7	7,922.6
EBIT (mn)			487.6	740.6	907.9
EBITDA (mn)			1,029.1	1,340.2	1,561.0
EPS (€)			1,336.0	260.9	352.5

Guidance: na

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: Barclays Capital, FactSet

# Divisional/group forecast

FY Dec, € mn	2008	2009e	2010e	2011e
Sales				
Infrastructures	3639.3	3592.0	3663.8	3755.4
Energy	1093.0	1784.0	1217.7	1575.2
Logistics	924.5	914.0	822.6	904.9
Environmental	757.3	772.0	733.4	880.1
Other	1813.6	5918.0	334.0	344.5
EBIT margin (%)				
Infrastructures	7.6%	6.8%	5.5%	5.9%
Energy	35.9%	33.0%	43.1%	47.0%
Logistics	7.5%	4.3%	11.4%	11.4%
Environmental	7.3%	9.1%	7.6%	7.7%
Other	na	na	na	na

Source: Company data, Barclays Capital

# Price target sensitivity

€	Long term sales growth									
		1.9%	2.4%	2.9%	3.4%	3.9%	4.4%	4.9%		
	11.0%	139.3	122.7	106.1	89.5	72.9	56.2	39.6		
ı sales	11.5%	142.1	126.1	110.2	94.3	78.4	62.5	46.6		
turn or	12.0%	144.8	129.6	114.4	99.2	84.0	68.8	53.6		
Long term return on sales	12.5%	147.5	133.0	118.5	105.0	89.6	75.1	60.6		
Long 1	13.0%	150.2	136.4	122.7	108.9	95.1	81.4	67.6		
	13.5%	152.9	139.8	126.8	113.7	100.7	87.6	74.6		
	14.0%	155.6	143.3	130.9	118.6	106.3	93.9	81.6		

Source: Company data, Barclays Capital

#### Calendar

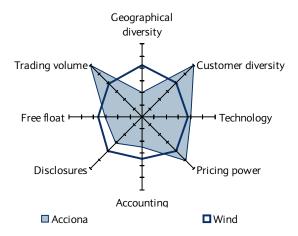
Results date not yet available

Source: Company data, Barclays Capital

#### Sector view 1-Positive

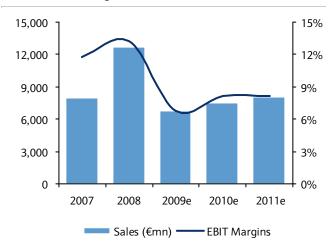
- Despite an upward trend in financing costs over the last 18 months, the outlook for project IRR remains stable to positive driven by a substantial reduction in transportation and balance of system costs as well as commodity prices decline passed through indexed turbine contracts.
- Wind operators without a demonstrable operational track record and liquidity constraints experienced an extremely challenging funding environment in the last 12 months. Though the appetite for financing quality projects improved, due diligences from banks on project, counterparty, technology and warranty risks have significantly lengthened financing negotiations. We are positive on tier 1 operators which offer balance sheet guarantees, track record, recurring cash flow base and diversified project portfolios.

# Competitive position and investability benchmarking



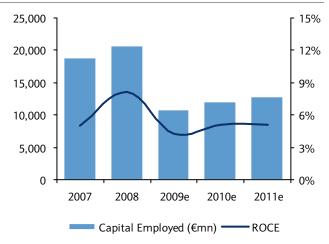
Source: FactSet, Company data, Barclays Capital

#### Sales and EBIT margin



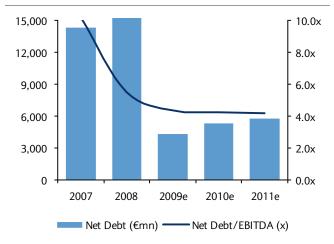
Source: Company data, Barclays Capital

# **CE and ROCE**



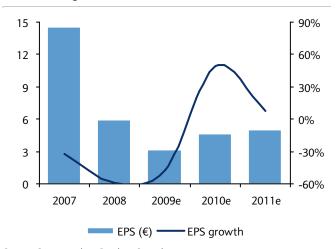
Source: Company data, Barclays Capital

# Net Debt to EBITDA



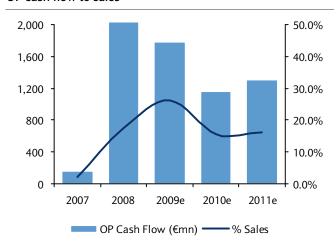
Source: Company data, Barclays Capital

#### EPS and EPS growth



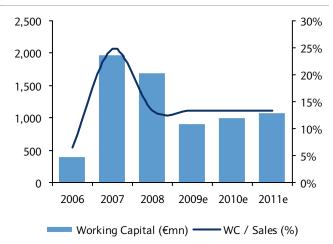
Source: Company data, Barclays Capital

# OP cash flow to sales



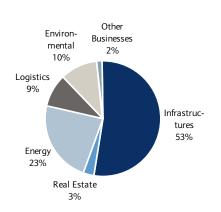
Source: Company data, Barclays Capital

# WC and WC/Sales



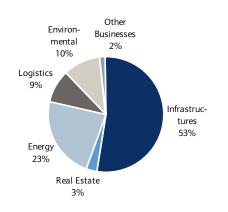
Source: Company data, Barclays Capital

#### Divisional revenue breakdown (2008)



Source: Company data, Barclays Capital

# Geographical revenue breakdown (2008)



Source: Company data, Barclays Capital

# Shareholder structure

Mar	ket value (€ 5.8bn) Flo	at 60%
Тор	10 holders (% shares outstanding)	
1	Grupo Entrecanales SA	59.6%
2	Acciona SA	2.4%
3	FIL Investments International Ltd.	1.9%
4	Newton Investment Management Ltd.	1.1%
5	Blackrock Investment Management	0.8%
6	INVESCO Asset Management Ltd.	0.8%
7	Norges Bank Investment Management	0.7%
8	Fidelity Management & Research	0.6%
9	Cazenove Capital Management Ltd.	0.4%
10	Santander Asset Management SGII SA	0.4%

#### Corporate history

Acciona was created in 1997 as a result of the merger between Entrecanales & Tavora and Cubiertas & MZOV. It started as a construction company specialised in civil works. The company has since diversified into renewables and it currently focuses on energies, infrastructures and services that share common customers. The company seeks to deliver sustainable development through all its six business lines: Infrastructures, Real Estate, Energy, Water and Urban/Environmental Services, Logistic and Transport Services. The company has a standardised, integrated business structure and focuses on high value-added businesses with a focus on profitability rather than size. Standardisation also enables it to draw synergy from the various divisions and enables it to profit from investments in strategic businesses. The company has been on the non-utility pioneer in developing a strategy based on renewable energies. In 2009, the company has strengthened its position a leading renewable energy operator by acquiring 2.1GW of assets from Endesa in which Acciona exercised its put option to sell its 25% stake to Enel.

#### Management

Jose Manuel Entrecanales Domecq (Executive Chairman and CEO)

José Manuel Entrecanales Domecq previously served as chairman of Vodafone España and of the Vodafone Foundation from 2000 until 2007. In addition, Mr. Entrecanales Domecq served as Finance Director of Acciona SA between 1992 and 2004. He started his career in 1986 as an associate at Merrill Lynch Capital Markets Europe. He is the board member of Endesa SA, Agropecuaria El Cijaral SA, Grupo Entrecanales SA, Tivafen SA, Servicios Urbanos Integrales SA and Osmosis Internacional SA.

Valentin Montoya Moya (Executive board member and CFO)

Mr. Montoya Moya is a graduate in Economics from the Complutense University in Madrid. Between 1986 and 1992 he held the position of Audit Director for the Entrecanales Group, following which he was appointed Deputy Executive Director of Finance for the Group. In 1997, he became Director of Financial Control of Acciona, S.A. and was appointed to the board of directors in 2001, becoming Chief Financial Officer and member of the board in 2004.

#### Accounting issues

The company increased an impairment loss in 2008 for certain property assets in inventories based upon an independent valuation conducted at 31 December 2008. The company provides guarantees of  $\in$ 3.7bn (2007:  $\in$ 3.4bn). Most of the guarantees provided were performance bonds and the company believes the liabilities that arise will not be material.

#### M&A

2009: sell of 25% stake in Endesa to Enel (€11.1bn – 6.4x EBITDA)

2009: acquisition of Endesa Renewable assets (€2.9bn – 2.1GW)

2008: increase stake from 50% to 100% in Inmobiliaria Parque Reforma in Mexico

Source: Factset, Barclays Capital

#### Energy

Acciona Energy is active in a number of clean technologies and became the third largest wind farm developer in the world following its acquisition of 2.1GW of wind assets from Endesa. Acciona Energy has developed expertise in wind, solar (both PV and solar thermal), biomass and small-scale hydroelectric scheme energies. In addition, it produces and markets biofuels made from vegetable oils. The company had a total installed capacity of 7,308MWat the end of 9m 2009 including wind, mini hydro, biomass, solar PV, solar thermal and cogeneration. In addition, the company has 678MW of assets under construction. In 2009, the company reached an agreement to purchase 2.1GW of renewable assets from Endesa's for €2.9bn. Acciona is also involved in manufacturing wind turbines through Acciona Windpower. The company has two plants in Spain and one in the US. The division primarily produces the AW 1500, a 1.5MW turbine; although the company has recently developed a 3MW turbine that the company anticipates to be commercialize by the end of 2010. The company has also developed a leading position in the Concentrated Solar Power business with 164MW under operation in the desert of Nevada and a 100MW currently under construction in Spain.

Key competitors: Iberdrola Renovables, FPL, EDP Renovaveis, EDF Energies Nouvelles, Abengoa, Brightsource, Ausra, Terna Energy, Theolia, Greentech

#### **Divisional forecasts**



#### Key issues

- US exposure: Acciona has limited exposure to the US market with the country representing approximately 8% of the company's total installed wind capacity.
- Capex plan: Acciona has committed relatively low capex for the development of wind assets compared to its peers IBR and EDPR in 2009. For the full year, the company expects to develop c500MW compared to 1.4GW and 1.3GW for IBR and EDPR, respectively. However, we note that Acciona acquired some 1.1GW of wind assets from Endesa during the same period.
- Turbine Supply: Traditionally two-thirds of the company's turbines are sourced internally. In addition, the company also purchases turbines from Gamesa, GE and others through frame contracts. While in-house turbine manufacturing limits supply risk for Acciona, this may also lead to a less diversified supplier base which exposes the company to a more concentrated technology than peers.
- The improved availability of turbine from Tier 1 turbine manufacturer, coupled with the limited track record of the 3MW product under development may limit commercial success with third party and resulting in low capacity utilisation.

Source: Company data, Barclays Capital

#### **Urban and Environmental Services**

The Environmental division manages services related to the urban environment and environmental protection through activities such as water treatment, solid waste management construction, and the provision of facility management. In water management, it has established presence in providing services across the integral water cycle and its scope of activities include project design and construction of desalination plants, waste water treatment plants, operation and maintenance and the supply of drinking water and sanitation of cities. The company has confirmed that the water business is likely to be reported separately in the near term.

Key competitors: Veolia, Suez, Schlumberger, Outotec, Energy Recovery, Abengoa

### Divisional forecasts



Source: Company data, Barclays Capital

# Key issues

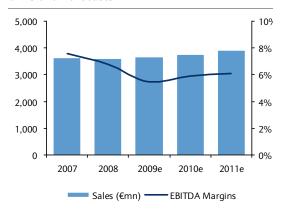
■ Cancellations: The division enjoys significant demand visibility with a backlog of €3.8bn at the end of 30 June 2009. In addition, a significant proportion of projects are backed by local governments and we believe this is likely to limit the scope for cancellations

#### Infrastructures

Acciona Infrastructures specialises in public and private co-financing of infrastructures, constructing motorways, tunnels, railways and hospitals under concession. The company has established its presence in key markets around the world and has developed and participated in a number of significant projects including the PETRONAS Towers in Malaysia, the Ting Kau Bridge in China and the Central Coastal Road Network in Chile. Their fields of activities extend across a number of branches of construction, both in terms of engineering and project execution. The company lays significant emphasis to ensure its activities are carried out considering the economic, environmental and social aspects and in a sustainable manner. The company had an order backlog in excess of €7.1bn related to infrastructures investment at the end of 9m 2009, 73.7% of which was civil works.

Key competitors: Abengoa, ACS Cobra

#### **Divisional forecasts**



#### Key issues

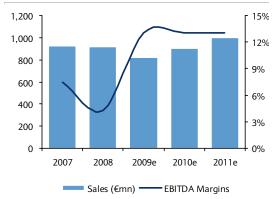
- Margin development: The division's operating margins have declined steadily over the last year decreasing from 7.5% in 2007 to 6.8%. We expect margins to decline further during this year to due to increased competition in Spain.
- Order backlog: Acciona Infrastructure enjoys a significant order backlog in excess of €7bn with a large proportion of projects being sponsored by central governments thus limiting the scope for cancellations or deferrals.

Source: Company data, Barclays Capital

#### **Logistic & Transport Services**

Acciona Logistic and Transport Services include companies such as Acciona Trasmediterranea, a provider for maritime transport of goods and passengers and Acciona Airport Services, providing airport and handling and other logistic services. The company is carrying out a restructuring exercise for Trasmediterranea and has been able to improve profitability for the division by reducing the number of cargo ships and optimizing transport lines.

#### Divisional forecasts



Source: Company data, Barclays Capital

# Key issues

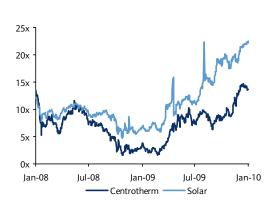
- Performance: The division's performance during the past few years was negatively affected by rising fuel prices and reduced demand with significant impact on operating margin. Following the ongoing restructuring exercise, the division was able to improve margins to 12.4% for the first nine months of 2009.
- Strategy: Management seeks to implement a number of cost-reduction initiatives including the sale of certain fixed assets, in particular rationalizing the ship fleet. In addition, management has stated that the division is non-core and we believe the company may seek to dispose the business in the medium-term, given the near-term focus on operations.

#### Share price performance



Source: Barclays Capital, FactSet

#### Historical valuation (EV/EBIT)



Source: Bloomberg, FactSet, Barclays Capital

#### Financial benchmarking



Source: Factset, Barclays Capital

# Centrotherm (1-OW, €47.50 PT)

Centrotherm has successfully expanded its offering to customers to include cell equipment manufacturing, thin film lines and also polysilicon production. Over the course of 2010, we expect the company to continue to be successful in winning new orders as solar customers move to higher quality production to lower cost of energy, improve efficiency and increase profitability. In addition, as the pace of cost-reduction increases, replacement equipment provided by Centrotherm looks set to increase, reducing the potential expected useful lives of legacy manufacturing units. Over the course of 2010, however, beyond the reported order backlog of EUR 0.9bn, the company also has to execute and deliver equipment while achieving contractual performance guarantees. While the company has provisioned at appropriate levels to achieve expected profitability, given the new production lines being sold and the region to which these are being delivered, achieving these expectations will be important to see the company continues to develop and evolve.

#### **Bulls and Bears**

#### Bulls

- Diversified customer base, product offer and relatively greater earnings visibility than peers
- Potential for investment cycles to shorten and expansion plans to be confirmed over the next 12 months as demand visibility improves
- Relatively strong balance sheet and continued investment in R&D to maintain competitive advantage

#### Bears

- Potential delays and cancellation from China following central government decision to limit polysilicon expansion plans
- Technology risks remain with operational performance still to be demonstrated over a multi-year period for thin film and polysilicon equipments
- Risks associated with turnkey projects

# Earnings estimate and company guidance

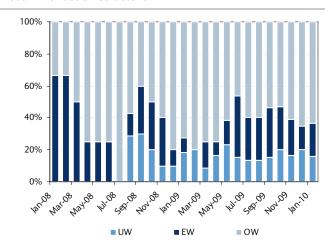
FY Dec, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	166.2	374.7	553.6	601.2	691.4
EBIT (mn)	21.1	43.5	54.3	70.9	85.6
Margin (%)	12.7%	11.6%	9.8%	11.8%	12.4%
EBITDA (mn)	21.5	57.5	75.8	85.7	99.8
EPS	0.70	1.47	1.43	2.09	2.61
Consensus					
Revenue (mn)			522.3	577.4	650.8
EBIT (mn)			53.0	66.7	78.5
EBITDA (mn)			71.4	83.8	94.2
EPS (€)			na	na	na

#### Guidance:

■ 2009 revenue of €500-550mn while increasing EBITDA over 2008

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: Barclays Capital, FactSet

#### Divisional/group forecast

FY Dec, € mn	2008	2009e	2010e	2011e
Sales				
Core Business	336.7	287.9	302.3	347.7
Silicon	38.0	265.7	298.9	343.7
EBIT margin (%)				
Core Business	10.9%	9.6%	10.1%	10.1%
Silicon	17.6%	10.0%	13.6%	14.7%

Source: Company data, Barclays Capital

# Price target sensitivity

€	Long term sales growth									
		1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%		
	5.5%	45.8	45.9	46.0	46.1	46.2	46.3	46.4		
ı sales	6.0%	46.1	46.3	46.5	46.7	46.9	47.1	47.3		
furn or	6.5%	46.4	46.7	47.0	47.3	47.6	47.9	48.2		
Long term return on sales	7.0%	46.7	47.1	47.5	48.0	48.3	48.6	49.0		
Longt	7.5%	47.0	47.5	48.0	48.4	48.9	49.4	49.9		
	8.0%	47.3	47.9	48.4	49.0	49.6	50.2	50.8		
	8.5%	47.6	48.3	48.9	49.6	50.3	51.0	51.6		

Source: Company data, Barclays Capital

#### Calendar

25 Mar 2010: Annual Report 200911 May 2010: Q1 2010 Results

■ 22 Jun 2010: Annual General Meeting

■ 12 Aug 2010: Q2 2010 Results

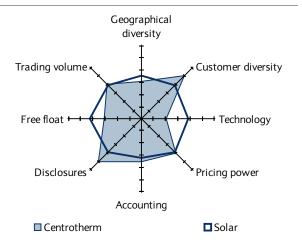
10 Nov 2010: Q3 2010 Results

Source: Company data, Barclays Capital

#### Sector view: 1-Positive

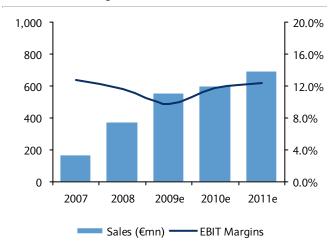
- The solar sector was affected in 2009 by a sudden shift in supply demand driven by regulatory changes in Spain and financing constraint. Industry fundamentals have significantly improved with financing availability and demand showing some signs of elasticity from lower installation costs post renegotiations across the supply chain.
- Equipment manufacturers benefit from asset light business model with lower pressure on working capital than the solar PV supply chain. Over 2010, we expect order intake to accelerate as a result of higher demand and pricing visibility. In addition, we expect a wave of equipment replacement in 2010 as a significant share of the existing production capacity at the industry aggregate level has become uneconomic following the 30-50% ASP decline experienced in 2009.

# Competitive position and investability benchmarking



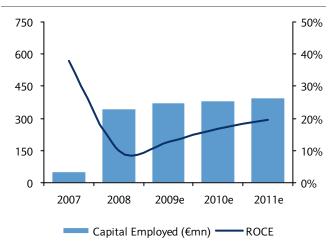
Source: FactSet, Company data, Barclays Capital

# Sales and EBIT margins



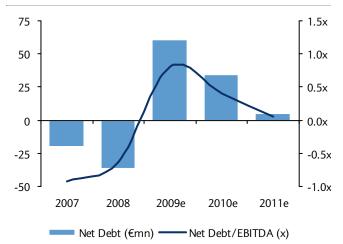
Source: Company data, Barclays Capital

# **CE and ROCE**



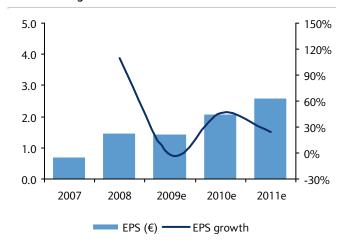
Source: Company data, Barclays Capital

# Net Debt to EBITDA



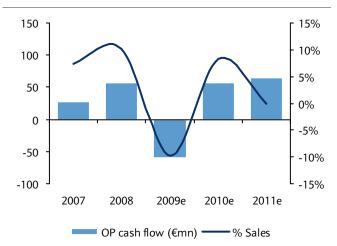
Source: Company data, Barclays Capital

# EPS and EPS growth



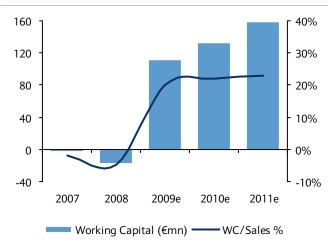
Source: Company data, Barclays Capital

# OP cash flow to sales



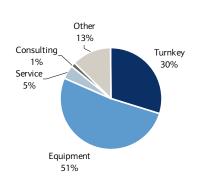
Source: Company data, Barclays Capital

# WC and WC/Sales



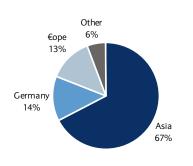
Source: Company data, Barclays Capital

#### Divisional revenue breakdown (2008)



Source: Company data, Barclays Capital

# Geographical revenue breakdown (2008)



Source: Company data, Barclays Capital

# Shareholder structure

Mai	ket value (€ 960mn)	Float	30%
Ton	10 holders (% shares outstanding)		
1 1 1	TCH GmbH		59.9%
1	TCH GMDH		39.9%
2	AUTENRIETH HANS		9.3%
3	Swisscanto Asset Management AG		3.1%
4	Deka Investment GmbH		3.0%
5	Fidelity Management & Research		3.0%
6	Pictet Asset Management SA		1.0%
7	FATH PETER		0.7%
8	Norges Bank Investment Managemen	t	0.7%
9	DWS Investment GmbH		0.7%
10	Baring Asset Management Ltd. (UK)		0.6%

#### Corporate history

Centrotherm delivered its first equipment to the photovoltaic industry in 1979. In 2001-02, while starting mass production to serve the European and Asian markets, the company entered into joint research projects with the Fraunhofer Institute for Solar Energy Systems and the University of Constance. 2003-05, marked the company's entry into the thin-film market, when it split off its photovoltaic arm into a separate company: centrotherm photovoltaics AG. In 2006, while delivering its first turnkey solar cells production lines, the company entered the Silicon market via equity participation in GP Solar and SolMic GmbH which were fully acquired over the course of 2008. Centrotherm also finalised the acquisition of FHR Anlangenbau (thin film) and Michael Glatt Maschinenbau (silicon). The company is listed on the TecDax since 2007 and issued 5.2mn shares in 2008 as part of a combined capital increase against contribution in cash and in kind in which Centrotherm integrated its sister company Centrotherm Solar Solutions.

#### Management

#### CEO and speaker of the board: Robert M. Hartung

Mr Hartung is an industrial engineer and computer scientist, he is responsible for business strategy, group management, legal activities and for the solar silicon business unit

#### **CEO: Hans Autenrieth**

Mr Autenrieth is responsible for international sales and development, strategic alliances, business development and for the thin film business unit

#### CFO: Oliver Albrecht

Mr Albrecht has a master in Business Administration; he is responsible for controlling, finances and accounting, investor relations and human resources

#### CTO: Dr. Peter Fath

Mr Fath is a doctor in physics and has responsibilities for the company R&D, Technology, group marketing and solar cell business unit

Internet address: www.centrotherm-pv.de

#### Accounting issues

At the end of 2008, the company recorded €8mn of internally generated goodwill and had other intangible assets of €89.4mn. For cash generating units, the company uses discount rates of 12.8% and cash flow growth rates of 1.0% for the periods beyond detailed budgets. The company reports 17.6% EBIT for Silicon market segment projects and 10.9% for solar cell/thin film projects. €29.9mn of intangible assets represent photovoltaic basis technology with a useful life of 10 years, SiTec customer relations for €12.9mn, with a useful life of €12.9mn and €8.6mn relating to the acquired profit margin within the SiTec order backlog with an estimated useful life of 3 years.

#### M&A

2008: Acquisition of GP Solar (€ 28mn)

2008: Acquisition of SolMIC (€ 66mn)

2008: Integration of centrotherm thermal solutions

2007: acquisition of FHR Anlagenbau GmbH (€22mn, 1.9x EV/Sales)

Source: Factset, Barclays Capital

#### Products and activity

#### Solar PV cells equipment

Centrotherm photovoltaics sell turnkey production lines to manufacture solar cells as well as single equipment. The range of products includes the technology, facility and equipment needed to manufacture crystalline solar cells. Within agreed deadlines, the company is active in the steps of planning, shipping, start-up and maintenance of solar cell plant. Centrotherm aims to improve its production lines by raising cell efficiency, increasing yield and production throughput to reduce further its cost competitive advantage. Centrotherm photovoltaics supply six of the 12 steps for solar cell production from thermal solutions division (integrated in Q4 2008). In 2009, the company presented a new generation of tube furnaces for diffusion and oxidation which offers 25% greater capacity than existing equipments.

Key competitors: Sierratherm Production Furnaces, Solarcoating Machinery GmbH, Roth and Rau, GT Solar, Manz Automation

#### Silicon

Centrotherm supply engineering, process technology services and equipment such as Siemens reactors, converters and vent gas recovery system for the production of high purity solar grade silicon. The company strengthened its competitive position in 2008 with the start of operations at its pilot plant for reactors and converters to produce polysilicon. Centrotherm enlarged its technological expertise in 2008 with the acquisitions of Michael Glatt Maschinenbau (specialised in pressure container building for reactors) and SolMIC (already 50% owned through GP solar). In 2009, the company introduced a new version of its crystallization furnace for the production of multi-crystalline ingots which reduces installation costs and improved energy utilization.

Key competitors: GT Solar

#### Thin film

Centrotherm is the first company in the world to offer turnkey production based on CIGS technology, which is one of the most promising thinfilm technologies with laboratory efficiency of 20.1% achieved on small surfaces. In-house, the company developed a high throughput cycle selenization process and use sputtering systems from its 100% subsidiary FHR (acquired in 2007). In 2009, the company raised its product cell efficiency to 13% at its pilot plant in Blaubeuren. The company anticipates to implement this technology for mass production and expects efficiencies of up to 12% for its turnkey manufacturing lines of 1.5sq.m. Centrotherm highlighted significant prospects and interest in its thin film products from Asia.

Key competitors: Oerlikon Solar, Applied material

#### Divisional forecasts

#### 20.0% 1,000 16.0% 800 12.0% 600 400 8.0% 200 4.0% 0 0.0% 2007 2008 2009e 2010e 2011e Sales (€mn) ——EBIT Margins

# Key issues

- Visibility: Demand visibility for solar installations remains limited and may continue to impact the timing of new investment plans and limit order backlog developments. As cost of energy is a key success factor for the entire solar PV supply chain, efficiency, yield and throughput performance to be the main area of focus. Though well positioned, we believe Centrotherm is likely to experience greater competition and pricing pressure from existing players.
- Technology: Despite, the acknowledged potential of the CIGS technology, the ramp-up phase of the Thin film facility to commercial production levels represents a significant challenge. The company announced the stabilization of a scalable 12-13% efficiency production process in 2009. We however draw attention to potential technology risks until the equipment realise sustained level of performance at customer sites.
- Regulation: In 2009, the Chinese central government has issued recommendation to limit further investment to expand local polysilicon production. This could potentially lead to delays and cancellation from Chinese customers which represent the majority of silicon equipment orders. In addition, large ongoing investments from Tier 1 polysilicon suppliers are likely to maintain a balanced supply-demand outlook and new entrants.

Source: Company data, Barclays Capital

#### Share price performance

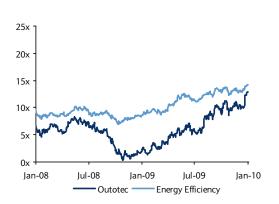


# Outotec (1-OW, €32.5 PT)

Outotec management continues to manage their business with exceptional skill and prudent risk management. Over the course of 2009, management carefully managed working capital and cash flow, while acquiring businesses with complementary technologies that are attractive considering cyclical valuations. In 2010, we expect the company to continue to take advantage of more attractive valuations to strengthen its technology and geographic presence. The key risks however from this approach will be to ensure the business does not become operationally stretched to properly integrate new businesses, that the new chief executive officer does not significantly alter the path of the company and that OT manages to strengthen existing relationships to win new orders. The expansion into new end markets makes good strategic sense, given the careful risk management and high regard customers hold OT's brand and operational reputation.

Source: Barclays Capital, FactSet

#### Historical valuation (EV/EBIT)



# **Bulls and Bears**

#### **Bulls**

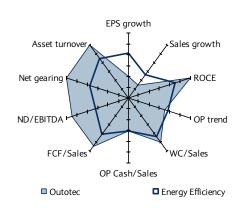
- Favourable late-cycle, end-market exposure geared to growing metal consumption in emerging markets.
- Significant upside potential from Services business and energy-efficiency solutions (water treatment, oil shale and biomass).
- Experienced management and risk-monitoring processes (PRIMA)

#### Bears

- Lengthening of contract commissioning due to factors outside Outotec project scope may impact revenue and profit recognition as well as provision releases
- Uncertainty on economic recovery and metals demand has led to low order intake in 2009
- Challenging financing environment and conditions led to a slowdown of investment decisions especially for non-established players

Source: Bloomberg, FactSet, Barclays Capital

# Financial benchmarking



# Earnings estimate and company guidance

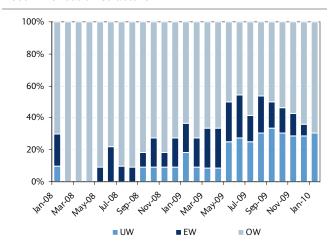
FY Dec, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	1,000.1	1,217.9	879.5	860.3	956.0
EBIT (mn)	9.6%	9.9%	8.0%	9.0%	10.0%
Margin (%)	96.1	120.2	70.2	77.6	95.9
EBITDA (mn)	107.6	131.2	86.0	94.2	113.7
EPS	1.85	2.24	1.17	1.29	1.59
Consensus					
Revenue (mn)			913.3	865.6	931.2
EBIT (mn)			67.5	53.8	69.9
EBITDA (mn)			78.7	66.2	82.3
EPS (€)			1.16	1.00	1.29

Guidance: 5% EBIT margin every year. 2009 revenues -25% over 2008 level.

Source: Factset, Barclays Capital

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: Barclays Capital, FactSet

# Divisional/group forecast

FY Dec, € mn	2008	2009e	2010e	2011e
Sales				
Min. Processing	302.9	419.6	360.9	280.4
Base Metals	274.2	295.3	141.7	209.0
Met. Processing	432.3	494.7	380.9	374.9
Other	37.8	56.0	56.0	56.0
EBIT margin (%)				
Min. Processing	8.3%	5.4%	4.7%	5.1%
Base Metals	16.0%	16.5%	10.3%	13.3%
Met. Processing	8.8%	12.4%	10.1%	9.8%
Other	5.8%	7.0%	8.9%	7.0%

#### Calendar

09 Feb 2010: FY Results 2009

18 Mar 2010: Annual General Meeting

**23** Apr 2010: Q1 2010 Results

23 July 2010: Q2 2010 Results

■ 22 Oct 2010: Q3 2010 Results

Source: Company data, Barclays Capital

#### Sector view: 2-Neutral

- The energy efficiency sector represents a variety of activities which include Biofuels, Smart Grid and Metering, Batteries and other environmental services and technology solutions which reduces energy consumption and carbon emissions.
- Our 2-Neutral view on the sector reflects the mixed business dynamics in energy efficiency sub-sectors. While we are positive on smart metering, energy storage and transmission, we remain cautious on the outlook for the biofuels industry.

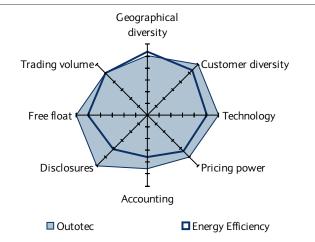
Source: Company data, Barclays Capital

# Price target sensitivity

€	Long term sales growth									
		0.5%	1.0%	1.5%	2.0%	2.5%	3.0%	3.5%		
	6.5%	35.2	33.9	32.5	31.2	29.9	28.5	27.2		
n sales	7.0%	35.3	34.1	32.8	31.6	30.4	29.1	27.9		
furn or	7.5%	35.4	34.3	33.1	32.0	30.9	29.8	28.6		
Long term return on sales	8.0%	35.5	34.5	33.4	32.5	31.4	30.4	29.3		
Long 1	8.5%	35.6	34.7	33.7	32.8	31.9	31.0	30.0		
	9.0%	35.7	34.9	34.0	33.2	32.4	31.6	30.8		
	9.5%	35.8	35.1	34.3	33.6	32.9	32.2	31.5		

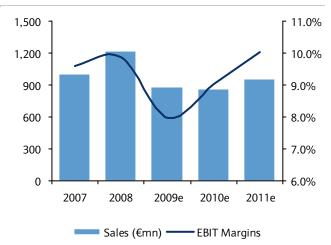
Source: Company data, Barclays Capital

# Competitive position and investability benchmarking



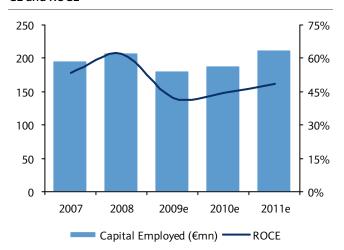
Source: FactSet, Company data, Barclays Capital

#### Sales and EBIT



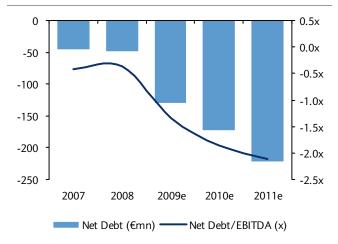
Source: Company data, Barclays Capital

# **CE and ROCE**



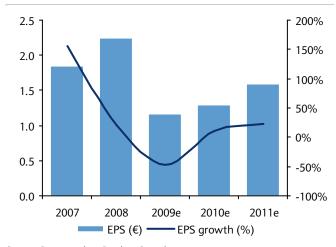
Source: Company data, Barclays Capital

# Net Debt to EBITDA



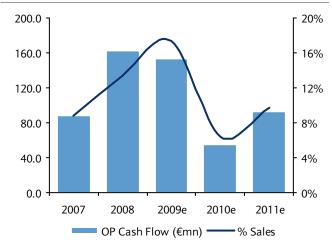
Source: Company data, Barclays Capital

# EPS and EPS growth



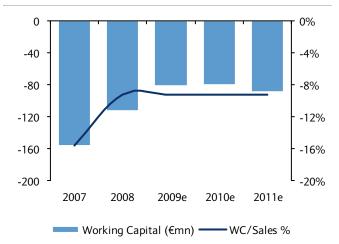
Source: Company data, Barclays Capital

# OP cash flow to sales



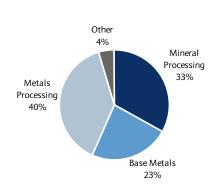
Source: Company data, Barclays Capital

# WC and WC/Sales



Source: Company data, Barclays Capital

#### Divisional revenue breakdown (2008)

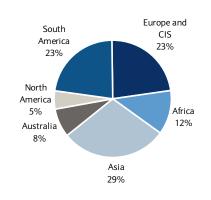


#### Corporate history

In 1910, Outokumpu was founded to commence Metals & Mining operations on a recently discovered copper ore deposit in Eastern Finland. The company expanded in line with Finland's rapid industrialisation and, in 1935, Outokumpu constructed the largest copper smelter in the world. Outokumpu quickly enhanced its service line to include different metals and created a dedicated sales department. During the 1970s and 1980s, the company established operations overseas and acquisitions in 2001 and 2002 further increased the company's product offering. In 2003, OT's businesses were consolidated into a separate division within the parent company, Outokumpu, and in 2005 separate financial data was presented. OT was spun-off from its parent company and listed on the Helsinki Stock Exchange in October 2006.

Source: Company data, Barclays Capital

#### Geographical revenue breakdown (2008)



#### Management

CEO Pertti Korhonen joins Outotec on 1 September 2009, assumes the duties of COO on 1 October 2009 and takes the CEO position on 1 January 2010. Mr Korhonen previously worked as CEO of Elektrobit Corporation and as Chief Technology Officer at Nokia

CFO: Vesa-Pekka Takala: Vesa worked at Outokumpu between 1990 and 2006 before becoming an employee of Outotec in October 2006.

Internet address: www.outotec.com

#### M&A

2009: Acquisition of Larox, (€93mn – 0.45x Sales)

2008: Acquisition of Auburn Group (€10mn – 0.37x Sales)

Source: Company data, Barclays Capital

# Shareholder structure

Mai		Float	99%
	,		
Тор	10 holders (% shares outstanding)		
1	Keskinainen Elakevakuutusyhtio Ilm	narinen	6.2%
2	BlackRock Advisors UK Ltd.		4.9%
3	Allianz Global Investors		4.6%
4	Swedbank Robur Fonder AB		4.1%
5	Varma Mutual Pension Insurance C	0.	4.0%
6	Norges Bank Investment Managem	ent	3.7%
7	Capital World Investors		3.4%
8	I.G. International Management Ltd.		3.0%
9	Nordea Investment Management A	В	2.7%
10	Allianz Global Investors (Taiwan) Lt	d.	2.0%

Source: Factset, Barclays Capital

# Accounting issues

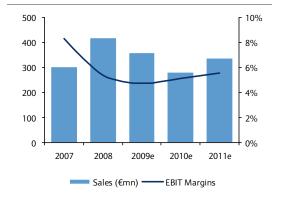
Revenues are recognised using the cost to cost method and all unfinished projects are reviewed and liabilities reviewed and any new commercial risks are evaluated and quantified and the necessary accruals are reserved. Capitalised development expenses are amortised over their expected useful lifes, up to 10 years. The carrying value of goodwill represented  $\[ \le \]$ 52.1mn at the end of 2008. The company provides commercial guarantees of  $\[ \le \]$ 166.5mn and pledges of  $\[ \le \]$ 3.0mn. The total amount of guarantees for commercial commitments including advance payment guarantees issued by the parent company amounted to  $\[ \le \]$ 350.1mn.

#### Minerals processing

The Minerals Processing division provides processes and equipment based on proprietary technology in grinding, flotation, physical separation and thickening, as well as analyzer and automation. The Minerals Processing division offers concentrator solutions that integrate various equipment and processes and are based on several decades of research and development at Outokumpu's former concentrator plants and Outotec's research center. In addition the offering of the Minerals Processing division covers application and process knowledge and metallurgical know-how for larger projects. The services include delivery of spare parts, site maintenance and inspection services as well as other expert services. A €8.9mn loss on fair valuation of forward contracts and a €8.5mn loss from an amicable settlement relating to the Pattison Sand project significantly affected the profitability of the division in 2008. Outotec is the market leader in flotation technology and analyzers for the minerals industry. Funding environment has significantly slower new investment decision, however established players which benefit from a demonstrated track record and balance sheet strengths are preparing capacity expansions prepare for next cycle of metals demand

Key competitors: FLSmidth, Metso Minerals, Polysius AG, Bgrimm, Bateman Engineering, Delkor, WesTech, Eriez Manufacturing, Roche Mining, Thermo Electron

#### **Divisional forecasts**



#### Key issues

- Project finance: The financing environment has considerably slowed down investment decisions. We believe the increased level of due diligence from banks is positive for Outotec which benefits from a long track record and breadth of technology expertise. However, financing terms have had a negative impact on individual project economics and has lowered the level of activity for Outotec especially from junior mining companies
- Project risk: Despite significant pricing and risk management policies in place (PRIMA) to ensure appropriate compensation for the level of risk taken, the project nature of Outotec activities carries some execution risks as evidenced by €8.9mn loss on fair valuation of forward contracts and a €8.5mn loss from an amicable settlement relating to the Pattison Sand project incurred in 2008.

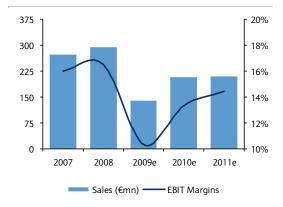
Source: Company data, Barclays Capital

#### Base metals

The Base Metals division's expertise covers the production processes for both sulfidic, oxidic ores and technologies for Precious Metals Recovery. The division provides environmentally friendly and energy efficient for each customer's raw material by combining both pyrometallurgical and hydrometallurgical technologies (rated by EU as the Best Available Techniques). The division develops and provides advanced technologies for copper, nickel, zinc, precious metals and ferroalloys producers. Deliveries may include feasibility studies, basic engineering, technology licenses and proprietary equipment, assistance in construction and commissioning, testing and customer training as well as maintenance and spare part services. The company strives to strengthen its competitive position by commercializing new technologies such as HydroCopper, permanent cathodes production through modern tankhouse process and ferro-manganese furnaces. Greenfield investment decision has been slowed financing environment and wider economic uncertainty. The modernization of existing facilities and increasing trend towards externalizing maintenance and other non-core represent growth drivers for the division.

Key competitors: Aker Kvaerner, Bateman Litwin, Falconbridge, Mitsubishi, Xstrata, SNC-Lavalin, Ausmelt, Dynatec, Tecnicas Reunidas,

#### Divisional forecasts



Source: Company data, Barclays Capital

#### Key issues

- Project risk: Despite systematic risk management procedures, project completion
  can be affected by factors outside of Outotec's project scope. Over the past 12
  months the delivery times significantly lengthened affecting revenue and profit
  recognition.
- Project finance The financing environment has considerably slowed down investment decisions. We believe the increased level of due diligence from banks is positive for Outotec which benefits from a long track record and breadth of technology expertise. However, financing terms have had a negative impact on individual project economics and has lowered the level of activity for Outotec especially from junior metals companies.

#### Metals processing division

The Metals Processing division develops and provides technologies for the processing of iron ore, alumina, aluminum, ilmenite and synthetic rutile, for the roasting of sulfidic concentrates, and for the production of sulfuric acid. Moreover, it offers the energy sector customized solutions including coal charring, gasification and combustion, and oil shale pyrolysis based on circulating fluidized bed technologies. The scope of deliveries ranges from feasibility studies, plant audits, and plant de-bottlenecking to technology transfer packages and lump-sum turnkey plant deliveries. The division serves its customers both in new plant investments and in the modernization and expansion of existing plants. Outotec is market leader in the market it operates and in particular in sulfuric acid plans and has a strong market presence in India, Brazil and China. Developing new technology applications and the Services business are key areas of focus for the company, which aims to maintain its competitive position and profitability in the division.

Key competitors: Brochot SA, FLSmidth, Solios SA, SMS Demag, Aker Kvaerner, Kobe Steel, Siemens, Midrex Technologies, MMC, Chemetics, MECS, Simon-Calves, Monsanto, Lurgi-Bischoff

#### **Divisional forecasts**

#### 15% 500 400 12% 300 9% 200 6% 100 3% 0 0% 2007 2008 2009e 2010e 2011e Sales (€mn) — EBIT Margins

Source: Company data, Barclays Capital

#### Key issues

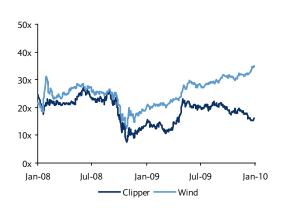
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#### Share price performance



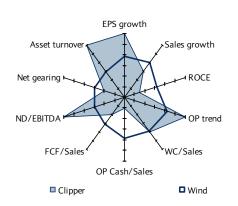
Source: Barclays Capital, FactSet

# Historical valuation (1 year fw PE)



Source: Barclays Capital, Bloomberg, FactSet

# Financial benchmarking



Source: Factset, Barclays Capital

# Clipper (2-EW, 195p)

Clipper's business remains in a transition period as the company deals with ongoing remediation issues which have lasted over two years while losses caused by these delays have weakened the balance sheet to restrict significant new orders for 2010 and 2011. The recent capital raise and the entrance of UTC as their third major partner (after BP, JP Morgan's One Equity), the company at least now has a significant strategic partner across the value chain: wind farm operation, financing and industrial manufacturing. We believe the main challenge for the company is the efficient deployment of fresh capital – to secure new contracts, complete remediation work, predict and mitigate any future costs for turbine related issues and achieve industry level of profitability (which we believe to be the region of 6-10% at the operating level). We also believe significantly improved levels of communication with the market are likely to be beneficial for the company and the investment community. Clipper continues to be the only major pure-play listed turbine manufacturer with significant exposure to the US market which remains one of the global markets with the most potential on the medium-term view.

#### **Bulls and Bears**

#### Bulls

- US exposure and Clipper's Liberty 2.5MW turbine which enjoys cost-of-energy advantages against peers
- Relationships with major wind farm operators (FPL, Edison, First Wind, BP) and favorable ASP for 2010 contracts (+10% yoy)
- Titan 5GW Joint venture project with BP represents potential for significant orders.

#### Bears

- Turbine performance remain below industry standards and unproven over a multi-year period
- Remediation work on blade still ongoing with necessity to complete repairs with rotors on the ground leading to incremental charges in H1 09 (US\$68mn)
- Balance sheet weaknesses positions unfavorably the company relative to Tier 1 suppliers given the improved availability of wind turbines in the US

# Earnings estimate and company guidance

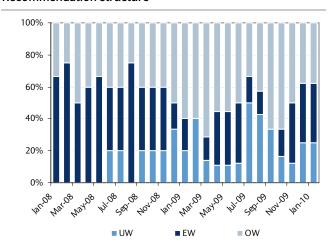
	1				
FY Dec, US\$	2007	2008	2009e	2010e	2011e
Revenue (mn)	23.9	737.3	747.5	503.4	810.8
EBIT (mn)	-196.8	-312.0	-131.1	-33.0	37.4
Margin (%)	na	-42.3%	-17.5%	-6.5%	4.6%
EBITDA (mn)	-187.7	-299.1	-119.1	-21.0	49.4
EPS	-1.82	-2.52	-1.10	-0.30	0.27
Consensus					
Revenue (mn)			445.7	449.3	610.1
EBIT (mn)			-95.0	3.3	26.4
EBITDA (mn)			-90.3	13.4	37.7
EPS (US\$)			-0.77	0.04	0.22

#### Guidance:

- 2009: Sales US\$ 750mn
- 2010: Positive EBIT

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: Barclays Capital, FactSet

#### Divisional/group forecast

FY Dec, € mn	2008	2009e	2010e	2011e
Sales Group	737.3	747.5	503.4	810.8
EBIT margin (%) Group	-42.3%	-17.5%	-6.5%	4.6%

Calendar

■ Results date not yet available

Source: Company data, Barclays Capital

#### Sector view: 1-Positive

- Despite an upward trend in financing costs over the last 18 months, the outlook for project IRR remained stable to positive driven by a substantial reduction in transportation and balance of system costs as well as commodity prices decline passed through indexed turbine contracts.
- Lead times significantly reduced over the past 12 months which had a negative impact on prices for unbooked capacities. Due to finance ability and technology limitations, we are not concerned by the emergence of Chinese competition on the medium term. With financing improving and incentive to complete projects in the next two years in major markets, we believe turbine manufacturers and tier 1 supply chain players will benefit from a positive order momentum over the next 12-18 months.

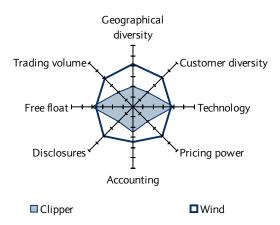
Source: Company data, Barclays Capital

# Price target sensitivity

Long term sales growth								
	2.5%	3.0%	3.5%	4.0%	4.5%	5.0%	5.5%	
5.5%	170.7	175.5	180.3	185.0	189.8	194.6	199.3	
6.0%	172.8	178.0	183.2	188.4	193.6	198.7	203.9	
6.5%	174.9	180.5	186.1	191.7	197.3	202.9	208.5	
7.0%	177.0	183.0	189.0	195.0	201.1	207.1	213.1	
7.5%	179.1	185.5	192.0	198.4	204.8	211.3	217.7	
8.0%	181.2	188.0	194.9	201.7	208.6	215.4	222.3	
8.5%	183.3	190.5	197.8	205.1	212.3	219.6	226.9	
	6.0% 6.5% 7.0% 7.5% 8.0%	5.5% 170.7 6.0% 172.8 6.5% 174.9 7.0% 177.0 7.5% 179.1 8.0% 181.2	2.5%     3.0%       5.5%     170.7     175.5       6.0%     172.8     178.0       6.5%     174.9     180.5       7.0%     177.0     183.0       7.5%     179.1     185.5       8.0%     181.2     188.0	2.5%     3.0%     3.5%       5.5%     170.7     175.5     180.3       6.0%     172.8     178.0     183.2       6.5%     174.9     180.5     186.1       7.0%     177.0     183.0     189.0       7.5%     179.1     185.5     192.0       8.0%     181.2     188.0     194.9	2.5%         3.0%         3.5%         4.0%           5.5%         170.7         175.5         180.3         185.0           6.0%         172.8         178.0         183.2         188.4           6.5%         174.9         180.5         186.1         191.7           7.0%         177.0         183.0         189.0         195.0           7.5%         179.1         185.5         192.0         198.4           8.0%         181.2         188.0         194.9         201.7	2.5%         3.0%         3.5%         4.0%         4.5%           5.5%         170.7         175.5         180.3         185.0         189.8           6.0%         172.8         178.0         183.2         188.4         193.6           6.5%         174.9         180.5         186.1         191.7         197.3           7.0%         177.0         183.0         189.0         195.0         201.1           7.5%         179.1         185.5         192.0         198.4         204.8           8.0%         181.2         188.0         194.9         201.7         208.6	2.5%         3.0%         3.5%         4.0%         4.5%         5.0%           5.5%         170.7         175.5         180.3         185.0         189.8         194.6           6.0%         172.8         178.0         183.2         188.4         193.6         198.7           6.5%         174.9         180.5         186.1         191.7         197.3         202.9           7.0%         177.0         183.0         189.0         195.0         201.1         207.1           7.5%         179.1         185.5         192.0         198.4         204.8         211.3           8.0%         181.2         188.0         194.9         201.7         208.6         215.4	

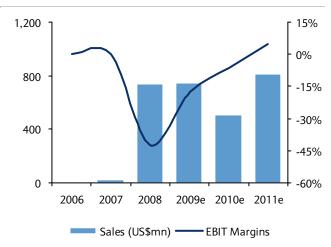
Source: Company data, Barclays Capital

# Competitive position and investability benchmarking



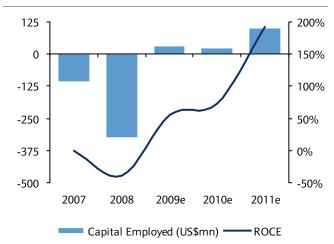
Source: FactSet, Company data, Barclays Capital

#### Sales and EBIT



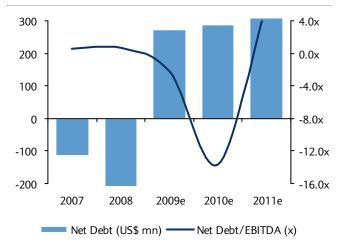
Source: Company data, Barclays Capital

# **CE and ROCE**



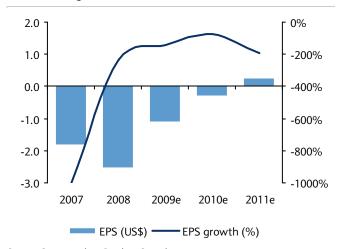
Source: Company data, Barclays Capital

# Net Debt to EBITDA



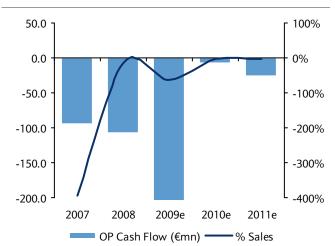
Source: Company data, Barclays Capital

# EPS and EPS growth



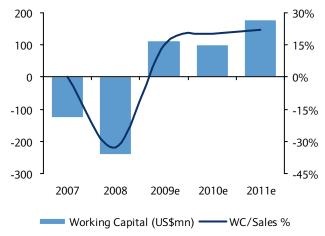
Source: Company data, Barclays Capital

# OP cash flow to sales



Source: Company data, Barclays Capital

# WC and WC/Sales



Source: Company data, Barclays Capital

#### Divisional revenue breakdown (2008)

# Core business 100%

Source: Company data, Barclays Capital

# Geographical revenue breakdown (2008)



Source: Company data, Barclays Capital

# Shareholder structure

Mar	ket value (€ 225mn) F	loat	26%
Тор	10 holders (% shares outstanding)		
1	United Technology		49.5%
2	BlackRock Investment Management		13.4%
3	One Equity Partners LP		12.2%
4	Lansdowne Partners Ltd.		10.8%
5	DEHLSEN JAMES G P		9.1%
6	Lehman Brothers (Market-Maker)		7.6%
7	Credit Suisse First Boston (Market-Mak	er)	6.4%
8	GENDELL JEFFREY L		4.9%
9	Dehlsen Family Trust		4.6%
10	DEHLSEN JAMES BRENTON		3.6%

Source: Factset, Barclays Capital

#### Corporate history

Clipper Windpower was founded by Jim Dehlsen and his son Brent Dehlsen in 2001. Since then Clipper's experienced management and engineering teams have focused on developing advanced wind turbine technology – embodied in the architecture of its Liberty 2.5MW turbine. The company commenced trading in September 2005 and has secured important additions to the senior management team since then. The company has strengthened its sales and marketing capability, expanded the product line and has built a new assembly facility in Cedar Rapids, Iowa. The company was also awarded ISO 9001:2000 QMS certification in January 2006. In 2008, Clipper sold 15.8m new shares for US\$150mn to One Equity Partners and appointed a new CEO and CFO.

#### Management

Douglas Pertz, President and CEO: Appointed as COO in May 2008 and CEO since September 2008, Mr. Pertz was a partner at One Equity and previously held CEO positions at IMC Global and Culligan Water. Mr Pertz has a B.S in Mechanical Engineering from Purdue.

Michael Keane, Senior Vice President and CFO (Sept 08). Certified Public Accountant, Mr. Keane has served as CFO of publicly traded companies for over 10 years, including Western Atlas, Unova and Computer Sciences Corporation.

Internet Address: www.clipperwind.com

#### Accounting issues

Revenue is measured when turbines have been commissioned but in some cases revenue is only recognised when risks and rewards of ownerships are transferred and the group does not retain managerial involvement. In 2008, the company reduced the carry value of inventory by US\$50mn to reflect the estimated future costs of remediating certain components. Estimated costs are based on uncontrollable factors such as weather, which could lead to additional positive or negative adjustments. At the end of 2008, the company carried a provision of US\$118mn for warranties, remediation and liquidated damages, excluding US\$13mn for litigation related matters. The company has US\$8.3mn of receivables due over 90 days, up from US\$1.2mn in 2007.

# M&A

2009: UTC acquires 49.5% of Clipper for US\$270mn

2008: Sold 15.8mn new shares for US\$150mn to One Equity Partners

#### Wind turbine manufacturing

Clipper group's activities include the design, engineering and manufacture of advanced wind turbines, and the development of wind energy projects, including engineering, construction and plant operation. Its Liberty 2.5MW wind turbine has been designed using technological improvements providing an efficient machine that is easier to erect and maintain, and which offers a significantly longer life than conventional wind turbines in the market. The wind turbine received international standards certifications in March 2005 with the expanded product range of 93m and 96m rotors receiving certification in March 2006. The first commercial prototype of the C-93 model of the Liberty turbine was erected in Medicine Bow, Wyoming, and began selling power to the Platte River Power Authority in April 2005. Clipper is also developing the world's largest offshore wind turbine, the Britannia 10MW turbine. The UK Crowne Estate has signed an agreement to purchase the first prototype and to gain knowledge on the development and challenges of deep water marine deployment. The company expects to complete the Britannia turbine design by the end of 2009, component fabrication and testing in 2010 and certification in 2012.

The company produced 9 Liberty turbines in 2007, 289 in 2008 and expects to deliver approximately 260 turbines in 2009. As a result of the difficult financing environment for wind project in the US market, Clipper has experienced order deferrals from 2009 to 2010 and 2011 for a total of 130 turbines (325MW). Firm orders for 2010 totaled 175 turbines or 438MW at the end of Q3 2009. Clipper's operational focus is directed towards proving the Liberty turbines performance and in particular to achieve industry average turbine availability in excess of 96%, complete blade remediation activities initiated in 2008 and qualify the Liberty turbine for project financing. In October 2008, Clipper and BP completed a 50/50 joint venture agreement for the development of the 5,050MW Titan project. The venture has signed a master turbine supply agreement with Clipper, which includes the purchase of up to 2,020 Liberty turbines and a five-year operation and maintenance agreement. The first phase of the project (25MW), which is fully owned by BP is under construction and is expected to be in commercial operation in the first quarter of 2010.

Key competitors: GE, Vestas, Siemens, Mitsubishi, Suzlon, REpower, Nordex, Gamesa

#### Divisional forecasts

# 1,200 800 400 2006 2007 2008 2009e 2010e 2011e Sales (US\$mn) — EBIT Margins

Source: Company data, Barclays Capital

#### Key issues

- Balance sheet: Clipper's balance sheet is one of the weakest in the global turbine sector with the highest 2011e net debt/EBITDA ratio across the sector. We believe this is likely to limit order intake near term as customers restrict prepayments, given the risk regarding the business as a growing concern. The company has applied for a US\$300mn loan guarantee from the DOE to support some commercialization cost of the Liberty turbine, however both outcome and timing remain uncertain.
- Order deferrals: Although no orders have been cancelled so far, the company has received significant deferral from major customers from 2009 into 2010 and 2011 (130 turbines). This has resulted in the deferral of milestone payments for an anticipated US\$400mn which significantly affected the company's liquidity position.
- Turbine quality issues: Clipper has experienced serial quality issues over the course of 2008 and 2009. In particular, due to manufacturing processes issues at its blade supplier, the company processed a blade skin crack remediation program for which the company has incurred an incremental US\$68mn provision in H1 2009. The company does not anticipate additional remediation costs in 2010.
- Availability: beyond serial production issues, remediated turbine availability remains below industry average of c98%. The company's objective is to achieve a fleet availability performance of 96%.

#### Share price performance



Source: Barclays Capital, FactSet

# Historical valuation (EV/EBIT)

This space is intentionally left blank

# Source: Bloomberg, FactSet, Barclays Capital

Financial benchmarking

# Asset turnover Sales growth Net gearing ROCE ND/EBITDA OP trend FCF/Sales OP Cash/Sales

Solar

Source: Factset, Barclays Capital

Conergy

#### Conergy (2-EW, €0.75 PT)

Conergy has spent the last two years in a recovery mode and this is something that looks set to continue in 2010, we believe. While some progress on outstanding litigation and the strength of the German market in early 2010 provides some respite for the company, outstanding strategic issues remain to be addressed. First, over the course of 2010, management may seek to divest its EPURON and noncore businesses to focus on its core market, as announced by the company, while retaining some earn-out clause or equity stake to provide some upside from such a transaction. Second, the company has its Frankfurt Oder facility, which in the current operating environment looks to be costly and uneconomic in comparison to its European and Asian peers. Third, the company has limited additional financial flexibility in terms of credit lines beyond those currently agreed, and given the track record of the company the need to deliver some consistent earnings over the course of 2010 for financial covenants is likely to be a major focus.

# **Bulls and Bears**

#### Bulls

- Progress made on restructuring plans reduction in working capital and gross margin improvements
- Stabilised production process to full capacity reached Frankfurt module facility in the second half of 2009
- Divestments of non-core activities to focus on Solar PV downstream activities and potential spin off Epuron

#### Bears

- Visibility on 2010 remains limited with potential for pricing to continue to limit the company's margin expansion potential
- Working capital remains high and the relatively weakness of Conergy's balance sheet and cash flow generation remains a challenge
- The potential for the company to partner for the joint operation of the Frankfurt facility is limited

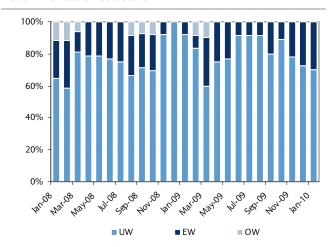
# Earnings estimate and company guidance

FY Dec, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	705.5	1,006.2	536.5	631.5	676.4
EBIT (mn)	-210.3	-212.5	-57.5	13.8	31.0
Margin (%)	-29.8%	-21.1%	-10.7%	2.2%	4.6%
EBITDA (mn)	-167.6	-176.7	-33.4	37.7	54.0
EPS	-6.01	-0.65	-0.21	-0.03	0.01
Consensus					
Revenue (mn)			598.7	783.7	973.7
EBIT (mn)			-60.8	-5.7	22.8
EBITDA (mn)			-37.0	22.0	52.3
EPS (€)			-0.21	-0.05	0.00

Guidance: "make the breakthrough to a positive operating result in the course of 2010"

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: Barclays Capital, FactSet

#### Divisional/group forecast

FY Dec, € mn	2008	2009e	2010e	2011e
Sales				
EPURON	209.0	244.5	265.8	13.3
Conergy PV	496.5	761.7	270.7	618.2
EBIT margin (%)				
EPURON	-52.1%	-11.5%	11.4%	8.2%
Conergy PV	-20.4%	-24.2%	-32.5%	2.1%

Calendar

25 Mar 2010: FY 2009 Results

■ 12 May 2010: Q1 2010 Results

■ 26 May 2010: General Shareholders' Meeting

■ 12 Aug 2010: Q2 2010 Results

11 Nov2010: O3 2010 Results

Source: Company data, Barclays Capital

#### Sector view: 1-Positive

- The solar sector was affected in 2009 by a sudden shift in supply demand driven by regulatory changes in Spain and financing constraint. Industry fundamentals have significantly improved with financing availability and demand showing some signs of elasticity from lower installation costs post renegotiations across the supply chain.
- The downstream segment has been the first to suffer from declining demand which put significant pressure on working capital and liquidity. With improving demand and pricing visibility we expect the downstream players to also be among the first beneficiaries and in particular players with strong relationships in the German market which we expect to be particularly strong in the first half of 2010.

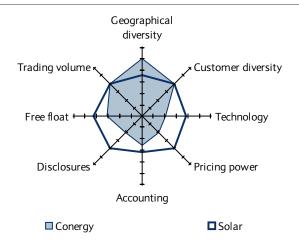
Source: Company data, Barclays Capital

# Price target sensitivity

€	Long term sales growth								
		2.5%	3.0%	3.5%	4.0%	4.5%	5.0%	5.5%	
	5.5%	0.54	0.55	0.56	0.57	0.57	0.58	0.59	
sales ו	6.0%	0.58	0.59	0.61	0.62	0.64	0.65	0.67	
turn or	6.5%	0.62	0.64	0.66	0.68	0.70	0.72	0.75	
Long term return on sales	7.0%	0.65	0.68	0.71	0.75	0.77	0.80	0.82	
Long t	7.5%	0.69	0.72	0.76	0.80	0.83	0.87	0.90	
	8.0%	0.72	0.77	0.81	0.85	0.90	0.94	0.98	
	8.5%	0.76	0.81	0.86	0.91	0.96	1.01	1.06	

Source: Company data, Barclays Capital

# Competitive position and investability benchmarking



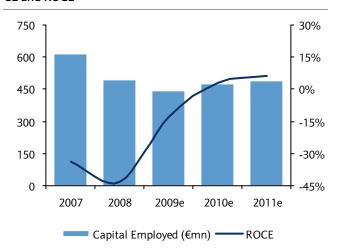
Source: FactSet, Company data, Barclays Capital

#### Sales and EBIT



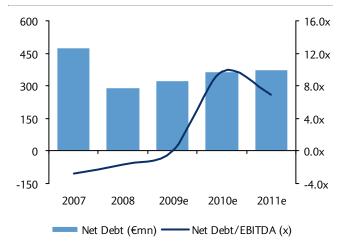
Source: Company data, Barclays Capital

# **CE and ROCE**



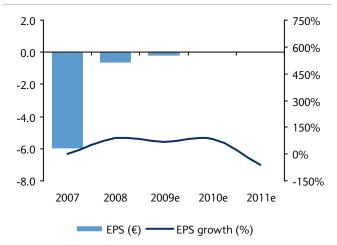
Source: Company data, Barclays Capital

# Net Debt to EBITDA



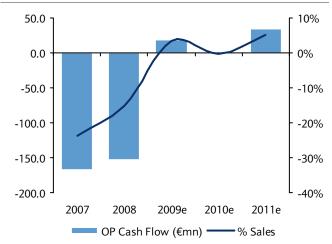
Source: Company data, Barclays Capital

# EPS and EPS growth



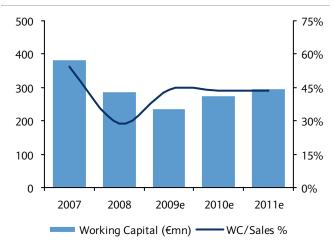
Source: Company data, Barclays Capital

# OP cash flow to sales



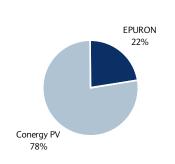
Source: Company data, Barclays Capital

# WC and WC/Sales



Source: Company data, Barclays Capital

#### Divisional revenue breakdown (2008)

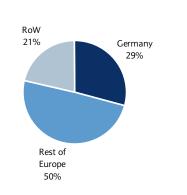


#### Corporate history

Conergy AG is one of the largest European providers of solar and renewable energy, with more than 1GW installed since its foundation. The company was founded in 1998 Hans-Martin Rüter. In its first year, Conergy obtained financing from 5r Private Equity and acquired RegEn GmBH, a manufacturer of solar installation equipment, and Alternative Energie Technik GmBH, a solar wholesaler. In 2001, Conergy set up an in-house electronic components development unit. Over the years, Conergy has acquired a number of other solar product manufacturers and wholesalers. Since 2007, Conergy has been restructuring its activities to concentrate on the solar PV downstream segment. To simplify its business model and operation, the company therefore divested its thermal and wind turbine business units.

Source: Company data, Barclays Capital

#### Geographical revenue breakdown (2008)



#### Management

Dieter Ammer, Chairman is a qualified economist, auditor and the co-founder of Conergy AG. Mr. Ammer has previously held chairman of the board at Zucker, Beck &CO brewery as well as Tchibo Holding AG.

Dr. Jörg Spiekerkötter, CFO, has studied law from Bielefeld, Lausanne and Freiburg and management from Harvard Business School. He has previously worked for Hoechst AG, Schering AG and Organon Biosciences.

Website: www.conergy.de

#### M&A

2008: Sell of thermal and Wind activities

2007: Merger; AET begins trading under the name Conergy

2006: Acquired Ostwind Techni GmbH

Source: Company data, Barclays Capital

# Shareholder structure

Mar	ket value (€ 259mn) F	loat	39%
Тор	10 holders (% shares outstanding)		
1	Commerzbank AG		37.0%
2	STRUENGMANN FAMILY		15.0%
3	AMMER DIETER		3.8%
4	HAPPEL OTTO		2.9%
5	RAUSCHENBUSCH ALEXANDER		2.2%
6	Norges Bank Investment Management		1.4%
7	Claymore Securities, Inc.		0.9%
8	BlackRock Asset Management Deutsch	land	0.3%
9	Dimensional Fund Advisors, Inc.		0.3%
10	INVESCO PowerShares Capital		0.3%
Source	e: Factset, Barclays Capital		

#### Accounting issues

The company recording €17.5mn goodwill on the balance sheet and uses a discount rate of 9.9%. For construction contracts, completion of accounting is defined by a series of pre defined milestones with engineers responsible for projects. For small and medium sized contracts, the cost to cost method is utilised. Over the course of 2008, the company wrote off €7.2mn of development costs due to technical adjustments. The financial covenants for the company were waived for the 2008 and 2009 financial years and new covenants and compliance with these must be agreed based upon the new capital structure and business plan to be established March 2010 to ensure the business continues as a going concern. At the end of 2008, Conergy recorded €144mn of finished goods in inventories against €228mn at the end of 2007. At the end of 2008, the company recorded €63.1mn in trade receivables which were due but not impaired because they represented claims against customers that had never defaulted in the past. Conergy has assumed a total of €129.7mn in bank guarantees as part of the syndicated credit facility.

#### Conergy PV

Components - Conergy offers products that cater to private homes and businesses as well as large solar plants. These include photovoltaic modules, mounting systems, string inventers, central inverters, off-grid inverters, grid connected inverters, solar charge controllers and system monitoring equipment. The solutions offered are for grid-connected installations as well as off-grid installations and architecturally unique constructions. Over time, Conergy has attained a global presence; it operates in 14 countries across Asia-Pacific, Europe, North America and South America. The company has a 250MWp module production capacity from its facility in Frankfurt (Oder).

Key competitors: Yinqli, Trina, Schott, Sharp, Sunpower, Suntech, Sunways, Phoenix Solar, Solon, Aleo Solar, Ersol

Conergy PV - Conergy sales and systems is one of the world's leading suppliers of turnkey, self-contained renewable energy systems. The company sells Conergy components as well as purchased systems and components to wholesalers, installers and end customers. The company supplies individual equipments, the sale of integrated systems and turnkey construction plant. The company also provides consulting services, planning, tailored finance, efficient installation and system monitoring via the Internet. In June 2007, this premium supplier became the world's first renewable energy company to be awarded the TÜV Rheinland's seal of quality for its service and working methods.

Key competitors: Phoenix Solar, Solaria Energia, Solon, Solarworld, REC, EDF Energies Nouvelles

#### Divisional forecasts



#### Key issues

- Visibility remains low and pricing, especially for modules and is likely to stay under pressure in 2010 as Asian competitors continue to expand capacity. In order to minimize unused capacity, we expect competition and pricing pressure to be particularly pronounced in the first quarter of 2010.
- In 2008, LG withdrew from its JV discussions with Conergy to operate the Frankfurt module facility. The company is still investigating alternatives with other interested parties. We believe the potential for the company to partner with a third party to be limited, given economic challenges European module manufacturer experience from Asian competition.

Source: Company data, Barclays Capital

#### **EPURON**

Conergy's project finance division EPURON, develops finances and implements large-scale renewable energy projects worldwide. The company is particularly active in wind, the bioenergy and solar thermal power plant sectors. EPURON acts as a one-stop shop for investors, providing reliable delivery of turnkey installations, structured and individually tailored financial products and professional operational management. EPURON products and service includes site inspection and development, procurement, construction as well as operation and maintenance. In 2009, the solar PV share of project business was transferred to Conergy PV segment.

Key competitors: EDF Energies Nouvelles, Theolia, Solar Millenium, Abengoa, Acciona

# Divisional forecasts

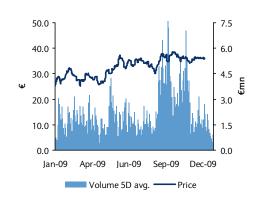


# Key issues

- The execution risks of the EPURON business are significant, especially when the company is offering performance guarantee to its customers. In addition, the high working capital nature of the EPURON business conflicts with Conergy greater focus on managing liquidity and reducing working capital at the group level.
- We believe, following the transfer of the PV projects to the Conergy PV segment that EPURON is no longer a core asset for the company which may envisage divesting this activity in the near term, as indicated by management.

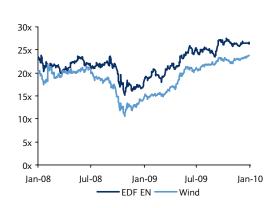
Source: Company data, Barclays Capital

#### Share price performance



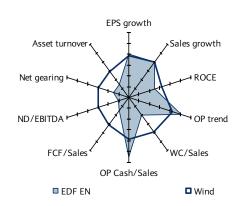
Source: Barclays Capital, FactSet

# Historical valuation (EV/EBIT)



Source: Bloomberg, FactSet, Barclays Capital

# Financial benchmarking



Source: Factset, Barclays Capital

#### EDF Energies Nouvelles (2-EW - €36 PT)

EEN represents in our view a premium renewables power operator which enjoyed early access to the capital markets as the first major listed wind farm developer. The expansion into the solar segment looks to have made good progress in 2009, and with the availability of modules this year and a promising regulatory environment in France, this progress looks set to continue in 2010, we believe. The company has demonstrated its commerciality through its acquisition of distressed stakes in Greentech's project development activities and in the acquisition of GE turbines in the secondary market last year for wind farms to be completed in 2010. Despite this good track record, we have adopted a more cautious stance on the company to reflect its premium valuation (an average of 11% since its IPO in November 2006), despite its smaller market capitalisation and liquidity. We acknowledge that upside potential remains to its medium-term wind installation targets and see ongoing value creation from its wind farm operations business. The company has agreed a long-term partnership with First Solar which is likely to provide visibility on production costs and security of supply. We believe the main challenge for longer-term agreements is to ensure that prices, terms and quantities remain flexible and linked to market developments which can see significant variations from year to year or quarter to quarter.

#### **Bulls and Bears**

#### Bulls

- Integrated business model coupled with diversified and attractive portfolio of projects under development.
- Strong management team with solid track record in securing non-recourse project finance facilities.
- Long-term framework contracts with wind turbine and solar module manufacturers.

#### **Bears**

- Investment from third parties remains conditioned to the availability of financing and strategy of acquisition versus greenfield asset development
- Lower load factor, residual operating life and ROI exposure to the US relative to major peers
- Exposure to less defensive business than the generation business and relatively higher leverage relative to peers

# Earnings estimate and company guidance

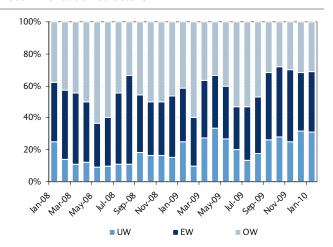
FY Dec, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	560.5	1,006.6	995.9	1,286.5	1,404.4
EBIT (mn)	95.5	158.6	189.2	250.1	350.2
Margin (%)	17.0%	15.8%	19.0%	19.4%	24.9%
EBITDA (mn)	139.9	219.9	282.4	380.9	520.2
EPS	0.83	0.90	0.96	0.83	1.41
Consensus					
Revenue (mn)			976.0	1,187.1	1,367.4
EBIT (mn)			201.2	274.5	365.0
EBITDA (mn)			298.7	408.6	545.7
EPS (€)			1.09	1.39	1.77

#### Guidance:

- 2009: EBITDA €280-300mn
- 2012: 4GW net installed capacity (of which 0.5GW Solar)

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: Barclays Capital, FactSet

# Divisional/group forecast

FY Dec, € mn	2008	2009e	2010e	2011e
Sales				
Generation	228.5	348.3	475.0	676.4
O&M	24.0	36.0	38.7	41.2
DSSA	569.1	417.4	565.0	468.5
Distributed	185.0	194.3	207.8	218.2
EBIT margin (%)				
Generation	9.0%	10.0%	10.3%	10.5%
O&M	7.5%	6.0%	5.5%	5.3%
DSSA	5.0%	3.0%	3.2%	3.5%
Distributed	9.0%	10.0%	10.3%	10.5%

Source: Company data, Barclays Capital

# Price target sensitivity

€	Long term sales growth								
		1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%	
	6.5%	40.0	38.0	35.9	33.9	31.8	29.8	27.7	
ı sales	7.0%	40.3	38.4	36.4	34.5	32.5	30.6	28.6	
furn or	7.5%	40.6	38.8	36.9	35.1	33.2	31.3	29.5	
Long term return on sales	8.0%	40.9	39.2	37.4	36.0	33.9	32.1	30.4	
Longt	8.5%	41.2	39.6	37.9	36.2	34.6	32.9	31.2	
	9.0%	41.5	39.9	38.4	36.8	35.3	33.7	32.1	
	9.5%	41.8	40.3	38.9	37.4	35.9	34.5	33.0	

Source: Company data, Barclays Capital

#### Calendar

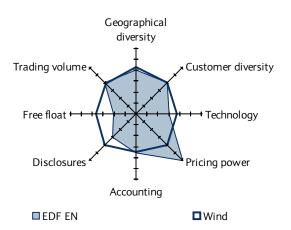
■ 10 Feb 2010: FY 2009 Results

Source: Company data, Barclays Capital

#### Sector view: 1-Positive

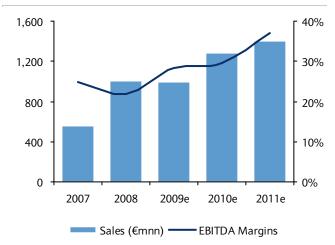
- Despite an upward trend in financing costs over the last 18 months, the outlook for project IRR remained stable to positive driven by a substantial reduction in transportation and balance of system costs as well as commodity prices decline passed through indexed turbine contracts.
- Wind operators without a demonstrable operational track record and liquidity constraints experienced an extremely challenging funding environment in the last 12 months. Though the appetite for financing quality projects improved, due diligences from banks on project, counterparty, technology and warranty risks have significantly lengthened financing negotiations. We are positive on tier 1 operators which offer balance sheet guarantees, track record, recurring cash flow base and diversified project portfolios.

# Competitive position and investability benchmarking



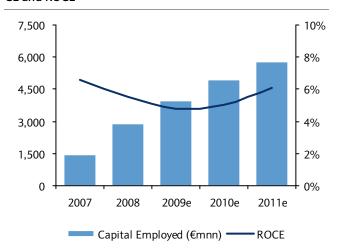
Source: FactSet, Company data, Barclays Capital

#### Sales and EBITDA



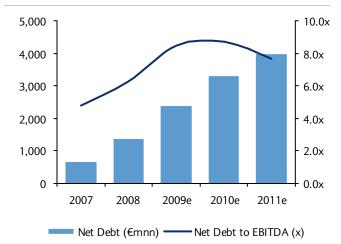
Source: Company data, Barclays Capital

# **CE and ROCE**



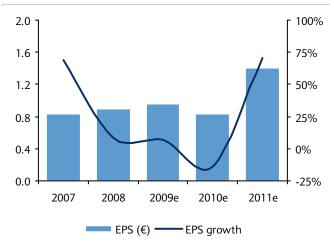
Source: Company data, Barclays Capital

# Net Debt to EBITDA



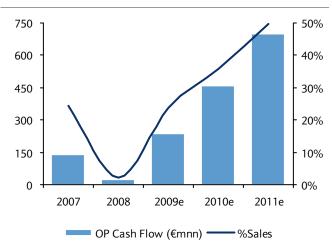
Source: Company data, Barclays Capital

# EPS and EPS growth



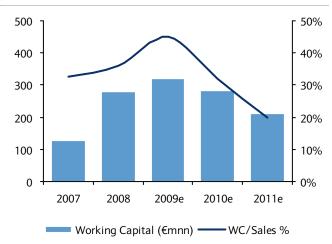
Source: Company data, Barclays Capital

# OP cash flow to sales



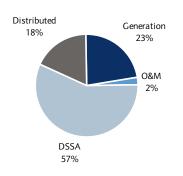
Source: Company data, Barclays Capital

# WC and WC/Sales



Source: Company data, Barclays Capital

#### Divisional revenue breakdown (2008)

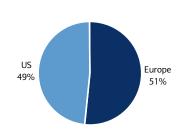


#### Corporate history

SIIF was founded in 1990 by Pâris Mouratoglou to develop, construct and operate thermal and hydro plants in France, and solar activities in French overseas territories. The company has gradually shifted its strategic focus to the renewable sector and became EDF's group renewable subsidiary in 2000. Via the development of partnerships and local subsidiaries, SIIF has expanded its activities in Western Europe and the US (enXco acquisition). The company has primarily been focusing on wind energy projects, but also developed a portfolio of selective investments and developments in other alternative sources of power generations. Since November 2006, EEN has been listed on the Euronext Paris market. In 2008, the company increased capital to accelerate its development in Solar and entered into the joint development of EDF EN Réparties to strengthen its position in the residential and small business distributed sector.

Source: Company data, Barclays Capital

#### Geographical revenue breakdown (2008)



#### Management

**David Corchia** CEO (July 2006): is a graduate student of the Ecole Nationale des Ponts et Chaussées. Prior to joining EDF EN as COO in 2004, Mr. Corchia held project finance and Energy & Environment coverage positions at BNP and JP Morgan, respectively.

Website: www.edf-energies-nouvelles.com

#### M&A

2009: established long-term partnership with Greentech

2009: acquired 18.5% of C-Power

2008: 50% stake in the capital of Turkish developer Polat Enerji

2008: Creation of a 50% joint venture with EDF, Energy Nouvelles Réparties

2003: 20% stake in C-Power offshore wind project consortium

2002: Acquisition of US wind project developer enXco

Source: Company data, Barclays Capital

# Shareholder structure

Mar	ket value (€ 2.9bn)	Float	25%
Top 10 holders (% shares outstanding)			
1	Electricite de France SA		50.0%
2	MOURATOGLOU PARIS		25.1%
3	INVESCO Asset Management Ltd.		9.3%
4	Allianz Global Investors		2.0%
5	BlackRock Investment Management		1.0%
6	Sarasin & Partners LLP		0.9%
7	William Blair Capital Management LLC	2	0.8%
8	DWS Investment GmbH		0.8%
9	Dexia Asset Management		0.5%
10	Amundi SA		0.5%

Source: Factset, Barclays Capital

# Accounting issues

For new wind farms, the company estimates the useful life to be between 20 to 25 years, for operational wind farms acquired, depending on the residual life, assumes between 8 to 25 years is taken. For acquisitions of minority interests there is no relevant IFRS guidance and the company has elected to adopt an accounting treatment where no additional revaluation is performed when an additional interest is acquired. At the end of 2008, the company recorded 11mn of intangible assets which represents software and patents which are amortised over ten years. At the end of 2008, the company had 1.19bn in available corporate lines and bank overdrafts. The company had commitments of 899.8mn and 89.2mn in respect of guarantees in respect of potential damages and interests for wind farms in the United States and France, respectively.

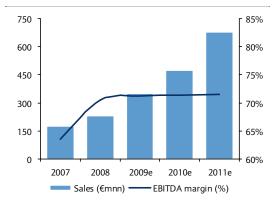
#### Generation

EEN, with 1,388MW installed at the end of 2008, is the world's 7th largest wind farm operator. The company has a significant presence in its domestic market, France and in the US, which the company entered in 2002 with the acquisition of California-based enXco. EEN also has an important presence in Europe, with local subsidiaries in Portugal, the UK, Italy, Greece and Turkey. EEN targets net renewable installed capacity of 4,000MW by the end of 2012, of which 500MW from solar technology. To expand internationally and strengthen its development pipeline, EEN acquired a 50% interest in Polat Enerji in December 2008, a major developer in the Turkish market. The company has also established a strategic partnership with Greentech Energy, which includes a 50% stake in the Italian 98.9MW Monte Grighine project and an option to take a 50% equity stake in every project from Greentech's pipeline in Italy and Poland (~850MW).

EEN has secured for its own projects and the sale of development and sale of wind farm project to third party c1.6GW of turbines. In North America, EEN has entered supply agreements with General Electric Wind, REpower and Clipper. In Europe, the company's selected suppliers are REpower, Vestas and Enercon. For solar, the company has entered a framework agreement with First Solar for deliveries in the 2009 to 2012 period to representing a total commitment of 383MW in the 2009-12 period. In addition, the group contracted smaller volumes during 2007 with United Solar Ovonic, Photowatt International, Solarfun and Yingli Green Power

Key competitors: EDP Renovaveis, EDF Energies Nouvelles, FPL, Edison, RWE Innogy, E.ON, Terna Energy, Theolia

#### **Divisional forecasts**



Source: Company data, Barclays Capital

#### Key issues

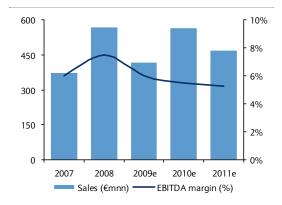
- Wind conditions: The Generation division performance remains conditioned to wind conditions and seasonality.
- Project risks: The risk management of renewable projects is essential for the company's overall performance. In particular, the key areas of focus remain the resource assessment, choice of appropriate suppliers and equipment, and construction phases.
- Financing terms: Following the Lehman Brothers bankruptcy in September 2008, the availability of project financing and tax equity reduced considerably. Tier Two wind farm operators have been more affected than Tier One operators such as EEN, though the company still highlighted the challenging environment over the year.

#### Development and Sale of Structured Assets (DSSA)

EEN develops, constructs and sells renewable assets in order to optimise the quality of its project portfolio. EEN is particularly active in the US where it sells assets to local utility companies. Through the DSSA activities, the company is seeking to optimize the use of its pipeline, in house resources realize economies of scale in purchasing equipment and maximise return on equity. The division generates cash covering most of the development and corporate cost at the group level.

Key competitors: Theolia, Solon, Phoenix Solar, Solon, Conergy

# **Divisional forecasts**



Source: Company data, Barclays Capital

#### Key issues

- There exists operational risk related to the turnkey nature of the projects sold to third parties
- The performance of the division remains dependent on customers' ability to secure financing and appetite for renewable assets

#### **Operation and Maintenance**

EEN provides operation and maintenance services to third parties. The acquisition of enXco in 2002 established capabilities in the US, where EEN has developed a leading operation and maintenance business, with over 4GW of projects under management at the end of 2009. The group is currently developing its operations and maintenance expertise in Europe by rolling out gradually to its installed capacity. In addition, the company acquired a 28% shareholding during 2007 in German maintenance company Reetec. The group also commissioned a maintenance unit in France, which serves as a hub for Reetec. Operations and maintenance contracts generally have a term of three to five years. The company performs operations and maintenance services itself with subcontractors' agreements for spare parts. Contracts do not include spare part services, which are charged to operators in case of turbine component repairs.

Key competitors Vestas, Enercon, GE, Siemens, Mitsubishi:

#### Divisional forecasts

#### 15% 50 13% 40 11% 30 20 9% 10 7% 2007 2008 2009e 2010e 2011e Sales (€mnn) -EBITDA margin (%)

#### Key issues

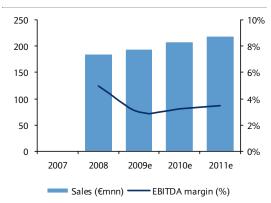
 As projects mature and the guaranty from the turbine manufacturer expires (typically between two and five years), we expect the O&M division to carry more risks.

Source: Company data, Barclays Capital

#### **Distributed Energies**

EEN intends to strengthen its position in this segment which targets the French residential and commercial segments. In February 2008, the company created a 50% joint venture with EDF Group, EDF Energies Réparties, an industrial and commercial venture which provides solar photovoltaic and thermal, thermodynamic and wood-fired heating equipment as well as energy control systems. The company has a primary focus on photovoltaic systems, especially on roof-top applications under 3kWp and commercial applications in the 20 to 150kWp range. In order to strengthen its distribution channels and product attractiveness, the company has established partnerships with construction groups (Maisons France Confort and Geoxia) and financial institutions (Crédit Mutuel-CIC) to provide comprehensive solutions to customers. In addition, the company has built a portfolio of interests in renewables, energy efficiency and industrial companies which include: Solar – 51% in Photon Power Technologies, 50% in Tenesol, 50% in Apollon solar and 40% in PV Alliance – Heating: 100% in Ribo, 50% in Stiebel Eltron, 82.4% in Supra, 56% in Biomee and US\$ 50mn in Nanosolar.

#### Divisional forecasts



Source: Company data, Barclays Capital

#### Key issues

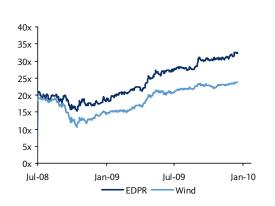
 Investments in residential and commercial renewable applications remain conditioned to the overall economic environment. In addition, the distributed business activities are highly dependent on the French market.

#### Share price performance



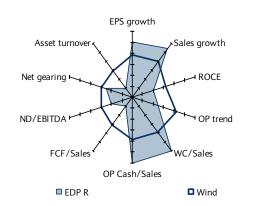
Source: Barclays Capital, FactSet

# Historical valuation (EV/EBIT)



Source: Bloomberg, FactSet, Barclays Capital

## Financial benchmarking



Source: Factset, Barclays Capital

#### EDP Renovaveis(1-OW, €8.25PT)

EDPR represents a core holding in the European Renewables universe as the company navigated many of the challenges exposed during the financial crisis of 2008-09. The company continues to make good progress in terms of actual project installation and completion, adding 525MW in the first nine months of 2009 and we forecast 1.3GW to be installed in all of 2010. The US subsidiary Horizon continues to perform well, and we believe additional investment in the US market remains an efficient deployment of capital on a two-year view. Uncertainty remains however for completion of projects as PPA discussions, regulatory approvals, grid connection and financing has taken much longer to complete than in 2008. We believe this pace of PPA agreements is likely to still allow the company to complete approximately 700MW per annum, but until visibility around signing more PPAs becomes clear, upside to this target is likely to remain limited. In addition, depending on the outlook for Spanish power prices, the company may seek to hedge power prices further for 2011, though we believe given the current Historical lows, spot prices would need to increase materially for this to be considered.

#### **Bulls and Bears**

#### Bulls

- Quality of wind assets which above average load factors in the US and Europe and higher average project residual life against main peers
- Diversified turbine supply base and strong internal risk management process for project development, execution and operation
- Higher than peers exposure to the US market where the company has demonstrated a strong track record in securing financing and PPAs

#### Bears

- Spanish electricity production not yet fully hedged for 2010 presents some downside risk to pricing
- The company has received relatively less ITC cash grants over the course of 2009 relative to peers such as Iberdrola Renovables

## Earnings estimate and company guidance

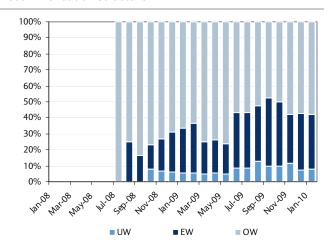
FY Dec, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	315.8	532.4	738.7	1,067.2	1,269.9
EBIT (mn)	104.1	231.6	295.7	410.4	490.4
Margin (%)	33.0%	43.5%	40.0%	38.5%	38.6%
EBITDA (mn)	229.8	439.4	560.3	803.9	952.1
EPS	na	0.13	0.18	0.24	0.28
Consensus					
Revenue (mn)			735.4	986.0	1,252.1
EBIT (mn)			261.0	382.7	520.6
EBITDA (mn)			548.5	752.0	994.2
EPS (€)			0.14	0.19	0.25

#### Guidance:

- 1.2-1.3 GW of additional capacity commissioned in 2009
- 1.3-1.4GW of additional capacity commissioned in 2010

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: Barclays Capital, FactSet

# Divisional/group forecast

FY Dec, €	2008	2009e	2010e	2011e
Sales				
Europe	400.6	482.7	656.6	717.4
US	193.0	256.0	410.6	552.5
EBIT margin (%)				
Europe	76.6%	78.2%	78.2%	78.7%
US	71.8%	72.5%	71.5%	70.6%

Source: Company data, Barclays Capital

# Price target sensitivity

€				Long term	sales grow	th		
		1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%
	38.0%	8.73	8.54	8.35	8.16	7.97	7.79	7.60
ı sales	38.5%	8.74	8.56	8.38	8.19	8.01	7.83	7.64
turn or	39.0%	8.76	8.58	8.40	8.22	8.04	7.87	7.69
Long term return on sales	39.5%	8.77	8.60	8.43	8.25	8.08	7.91	7.73
Longt	40.0%	8.79	8.62	8.45	8.28	8.11	7.95	7.78
	40.5%	8.80	8.64	8.48	8.31	8.15	7.99	7.82
	41.0%	8.82	8.66	8.50	8.34	8.18	8.03	7.87

Source: Company data, Barclays Capital

#### Calendar

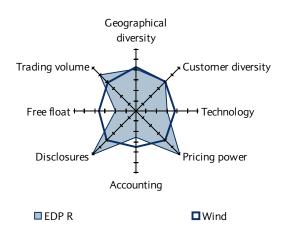
Results date not yet available

Source: Company data, Barclays Capital

#### Sector view: 1-Positive

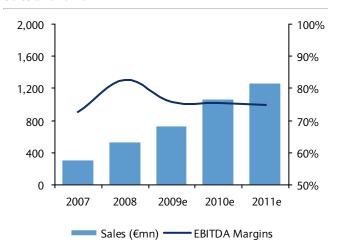
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# Competitive position and investability benchmarking



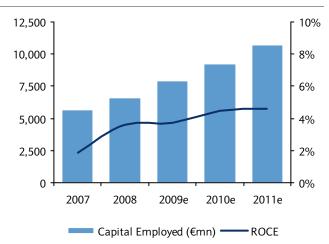
Source: FactSet, Company data, Barclays Capital

# Sales and EBITDA



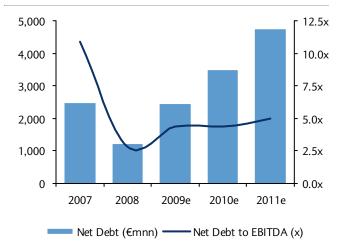
Source: Company data, Barclays Capital

# **CE and ROCE**



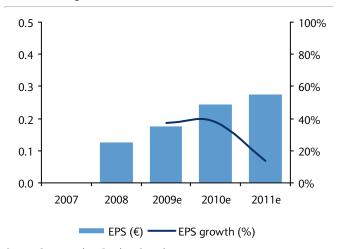
Source: Company data, Barclays Capital

# Net Debt to EBITDA



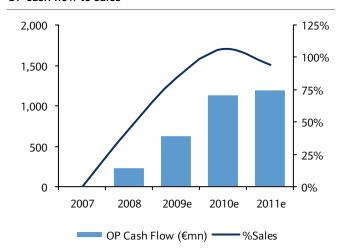
Source: Company data, Barclays Capital

# EPS and EPS growth



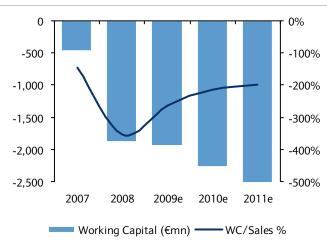
Source: Company data, Barclays Capital

# OP cash flow to sales



Source: Company data, Barclays Capital

# WC and WC/Sales



Source: Company data, Barclays Capital

#### Divisional revenue breakdown (2008)

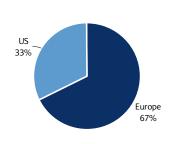
# Wind farm operation 100%

# Corporate history

EDP Renovaveis was incorporated in December 2007 and acquired EDP group's European and North American renewable activities operated through NEO and Horizon. NEO was created by EDP and Hidrocantábrico, commencing operations of renewable assets with a primary focus on the Iberian peninsula in April 2005. Horizon was acquired in 2007 by EDP group to enter and develop its operation in the promising North American market. EDP Renovaveis currently develops, operates and owns power plants that generate electricity from renewable sources. The company focuses primarily on the development of its wind project portfolio in Europe and the US and plans to increase its gross installed capacity to 10.5GW by the end of 2012. EDP Renovaveis was listed on the Euronext Lisbon market in June 2008 and remains a 62% subsidiary of EDP group.

Source: Company data, Barclays Capital

#### Geographical revenue breakdown (2008)



# Management

Ana Maria Fernandes (CEO): Previously held board member positions for several investment banking companies of Banco Fomento de Exterior and GALP Energia. Ana Maria Fernandes has also been head of Renewables and Gas and board member of EDP Group.

Rui Teixera (CFO): Held CFO positions at NEO and head of corporate planning and Control of EDP Group. Rui Teixera previously worked as a project manager at Det Norske Veritas and as a consultant at McKinsey & Company.

Website: www.edprenovaveis.com

#### M&A

2008: EDP Renovaveis acquired NEO and Horizon.

2007: EDP group takes over Horizon.

Source: Company data, Barclays Capital

# Shareholder structure

Mar	ket value (€ 5.9bn) I	Float	22.5%
Тор	10 holders (% shares outstanding)		
1	Energias de Portugal SA		77.5%
2	FIL Investments International		0.9%
3	BlackRock Investment Management		0.4%
4	Pictet Asset Management SA		0.4%
5	KBC Asset Management Ltd. (Ireland)		0.3%
6	Vontobel Asset Management AG		0.3%
7	Impax Asset Management Ltd.		0.3%
8	Strategic Investment Advisors (Suisse)	SA	0.3%
9	Allianz Global Investors (France) SA		0.3%
10	Kapitalanlagegesellschaft		0.3%

Source: Factset, Barclays Capital

## Accounting issues

The company recognises dismantling and decommissioning provisions for assets at the end of their useful life. This is recognised on a straight line basis over the asset's life. Power purchase agreements between Horizon and its customers were valued using discounted cash flow techniques and are estimated to be approximately €120mn and recorded as a non-current liability amortised over the period of the agreement against other operating income. Turbine availability income represented €2.3mn in 2008 and reflects payments for when turbines availability is less than 93% in the first 6 months and/or 97% in any subsequent period of six months during the warranty period. The company has €1.372bn of goodwill at the end of 2008 (2007: €1.201bn) which relates to assets acquired by the group. Goodwill relating to Horizon is tested annually and is based upon an annual addition of 700MW through to 2020. Terminal values that are assumed imply there is a possibility of increasing generation capacity of wind farms and the additional value related with the remaining useful life of wind farms beyond the period.

#### Wind farm operations

EDP Renovaveis develops, designs, constructs and operates renewable energy projects. Its operating assets include mainly wind projects and, to a marginal extent, mini-hydro energy activities. However, EDP Renovaveis is also exploring other alternative and renewable energy technologies in partnership with EDP group research and development arm, EDP Inovacao. The company is focusing on the development of its wind project portfolio in targeted markets with attractive economics (load factors, tariffs for wind electricity, political stability). EDP Renovaveis, at the end of 2009, had an installed capacity of c6.3GW and a total pipeline under development of 29GW. The company targets to increase its installed capacity to 10.5GW by the end of 2012, representing an average yearly increase of 1.4GW over the 2007-12 period. The company has announced its expectation to complete 1.3 to 1.4GW over the course of 2010.

The company has a geographically diversified project pipeline with projects at an advanced stage of development twice covering the companies need to reach its 2012 targets and allowing a selective approach to selecting individual projects. EDP Renovaveis has a strong presence in the US where it has benefitted from the quality of the Horizon which the company acquired in 2007. The US represents 60% of the company's projects under development and construction, where EDP Renovaveis has demonstrated a strong track record in securing PPAs, tax equity financing and bringing asset on stream. The Iberian Peninsula, in contrast, represents 55% of operating assets and 22% of assets under construction and development. EDP Renovaveis benefits from its mother company presence in the market which allowed in 2008 the implementation of a hedging strategy on Spanish electricity production. EDP Renovaveis' remaining assets are concentrated primarily in France, Romania and Poland.

To finance this expansion plan, EDP Renovaveis has secured a 10-year fixed-term agreement with its parent company for around 75% of projects under operation at the end of 2009. To achieve its expansion targets and maximise value creation, EDP Renovaveis entered framework contracts which allow geographical as well as timing flexibility. The company's turbine agreements represent a total c1.4 GW which principally cover 2010 projects. The company's main turbine suppliers include Vestas (40%), Gamesa (16%), GE (14%), Suzlon (8%), Acciona (7%) of which 35% include geographic and timing clauses for limited costs.

Key competitors: Iberdrola Renovables, EDF Energies Nouvelles, FPL, Edison, RWE Innogy, E.ON, Terna Energy, Theolia

#### **Divisional forecasts**

#### 2,000 100% 1,600 90% 1.200 80% 70% 800 400 60% 50% 2007 2008 2009e 2010e 2011e Sales (€mn) — EBITDA Margins

#### Key issues

- EDP Renovaveis is increasingly diversifying its project portfolio, although it remains dependant on regulatory support for wind energy in Spain and the US, which together represent 85% of total projects pipeline.
- Spanish electricity production not yet fully hedged for 2010 presents some downside risk to pricing
- The company has been less successful in securing ITC cash grants over the course of 2009 relative to peers such as Iberdrola Renovables

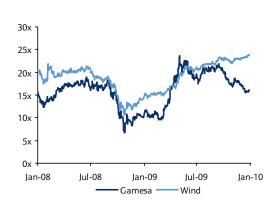
Source: Company data, Barclays Capital

# Share price performance



Source: Barclays Capital, FactSet

# Historical valuation (EV/EBIT)



Source: Bloomberg, FactSet, Barclays Capital

# Financial benchmarking



Source: Factset, Barclays Capital

#### Gamesa (2-EW, €14 PT)

We believe that 2010 will be a positive year for Gamesa, though in the first half we expect to see variability in orders and delivery schedules as difficulty in signing PPAs and obtaining financing impacts Gamesa's relatively concentrated order book. In addition, Gamesa's exposure to China is likely to underperform domestic and international companies from our channel checks during recent visits to the region. We note that Gamesa's project pipeline in the country allows for development of projects which can then be sold to utilities, but given the company's restricted working-capital management, the potential for large scale development of such projects remains limited. Over the course of the year, we expect management to take greater action to strengthen its order book, broaden the scope of its turbine range (including focus towards offshore products) and demonstrating progress towards achieving improved profitability. The company targets an 11% EBIT margin for next year, against consensus expectations of 7.4%. The company has also to make progress towards spinning off its wind farm development business in Asia and the United States, which we believe could become a greater focus for value investors for 2011. We estimate that the wind farm pipeline could represent between EUR2-3 per share depending on the stage and quality of each project. The timing of such value realisation is only set to become clear again once the position of existing wind assets becomes clear and when an acceleration of projects makes economic sense either through prevailing financial circumstances or regulatory requirements.

#### **Bulls and Bears**

#### **Bulls**

- Long-term supply agreements key strategic accounts including Iberdrola Renovables provides demand visibility
- Geographically diversified supply chain strategy and investment in R&D focusing on new G10 4.5MW turbine
- Strategic agreement with Iberdrola Renovables for joint development of European wind assets, with a sell option after 31 December, 2010

#### Bears

- Timing and geographic flexibility contained in long-term framework agreements
- Uncertainty on realizing the value of Gamesa Energia North American pipeline
- Recent management changes at the corporate and operational levels

# Earnings estimate and company guidance

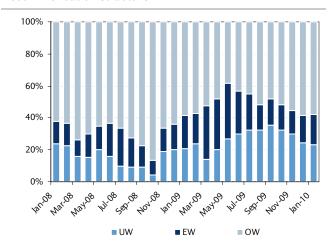
FY Dec, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	3,260.3	3,901.2	2,988.5	3,584.8	4,060.7
EBIT (mn)	250.1	207.6	189.0	256.9	383.9
Margin (%)	7.7%	5.3%	6.3%	7.2%	9.5%
EBITDA (mn)	468.1	495.4	364.5	455.5	603.1
EPS	0.92	0.65	0.68	0.91	1.37
Consensus					
Revenue (mn)			3,245.4	3,576.3	4,142.7
EBIT (mn)			228.0	262.9	334.9
EBITDA (mn)			410.5	459.6	546.6
EPS (€)			0.59	0.76	1.02

#### Guidance:

■ 2009: Sales € 3.3-3.6bn, 6-7% EBIT margin, WC 20%/Sales

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: Barclays Capital, FactSet

# Divisional/group forecast

FY Dec, €	2008	2009e	2010e	2011e
Sales Manufacturing Generation	2,800 576	3,495 na	2,912 218	3,462 290
EBIT margin (%) Manufacturing Generation	14.0% 15.3%	14.2% na	13.3% 5.0%	13.7% 5.0%

Calendar

Results date not yet available

Source: Company data, Barclays Capital

#### Sector view: 1-Positive

- Despite an upward trend in financing costs over the last 18 months, the outlook for project IRR remained stable to positive driven by a substantial reduction in transportation and balance of system costs as well as commodity prices decline passed through indexed turbine contracts.
- Lead times significantly reduced over the past 12 months which had a negative impact on prices for unbooked capacities. Due to finance ability and technology limitations, we are not concerned by the emergence of Chinese competition on the medium term. With financing improving and incentive to complete projects in the next two years in major markets, we believe turbine manufacturers and tier 1 supply chain players will benefit from a positive order momentum over the next 12-18 months.

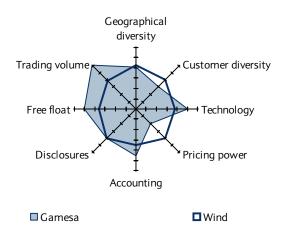
Source: Company data, Barclays Capital

# Price target sensitivity

Long term sales growth								
	1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%	
7.5%	13.0	13.2	13.3	13.4	13.5	13.7	13.8	
8.0%	13.1	13.3	13.4	13.6	13.8	13.9	14.1	
8.5%	13.2	13.4	13.6	13.8	14.0	14.2	14.4	
9.0%	13.3	13.5	13.8	14.0	14.2	14.4	14.6	
9.5%	13.4	13.7	13.9	14.2	14.4	14.7	14.9	
10.0%	13.5	13.8	14.1	14.4	14.6	14.9	15.2	
10.5%	13.6	13.9	14.2	14.5	14.9	15.2	15.5	
	8.0% 8.5% 9.0% 9.5%	7.5% 13.0 8.0% 13.1 8.5% 13.2 9.0% 13.3 9.5% 13.4 10.0% 13.5	1.5%     2.0%       7.5%     13.0     13.2       8.0%     13.1     13.3       8.5%     13.2     13.4       9.0%     13.3     13.5       9.5%     13.4     13.7       10.0%     13.5     13.8	1.5%         2.0%         2.5%           7.5%         13.0         13.2         13.3           8.0%         13.1         13.3         13.4           8.5%         13.2         13.4         13.6           9.0%         13.3         13.5         13.8           9.5%         13.4         13.7         13.9           10.0%         13.5         13.8         14.1	1.5%         2.0%         2.5%         3.0%           7.5%         13.0         13.2         13.3         13.4           8.0%         13.1         13.3         13.4         13.6           8.5%         13.2         13.4         13.6         13.8           9.0%         13.3         13.5         13.8         14.0           9.5%         13.4         13.7         13.9         14.2           10.0%         13.5         13.8         14.1         14.4	1.5%         2.0%         2.5%         3.0%         3.5%           7.5%         13.0         13.2         13.3         13.4         13.5           8.0%         13.1         13.3         13.4         13.6         13.8           8.5%         13.2         13.4         13.6         13.8         14.0           9.0%         13.3         13.5         13.8         14.0         14.2           9.5%         13.4         13.7         13.9         14.2         14.4           10.0%         13.5         13.8         14.1         14.4         14.6	1.5%         2.0%         2.5%         3.0%         3.5%         4.0%           7.5%         13.0         13.2         13.3         13.4         13.5         13.7           8.0%         13.1         13.3         13.4         13.6         13.8         13.9           8.5%         13.2         13.4         13.6         13.8         14.0         14.2           9.0%         13.3         13.5         13.8         14.0         14.2         14.4           9.5%         13.4         13.7         13.9         14.2         14.4         14.7           10.0%         13.5         13.8         14.1         14.4         14.6         14.9	

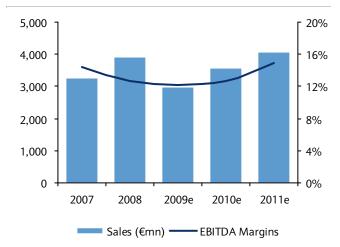
Source: Company data, Barclays Capital

# Competitive position and investability benchmarking



Source: FactSet, Company data, Barclays Capital

# Sales and EBITDA



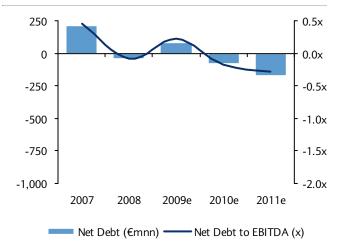
Source: Company data, Barclays Capital

# **CE and ROCE**



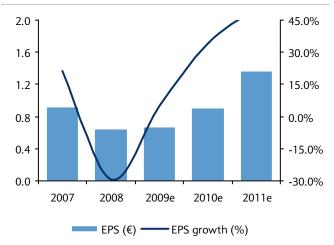
Source: Company data, Barclays Capital

# Net Debt to EBITDA



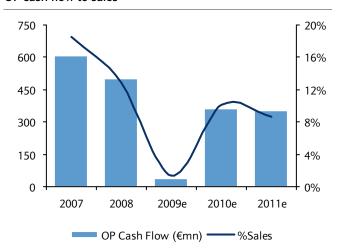
Source: Company data, Barclays Capital

# EPS and EPS growth



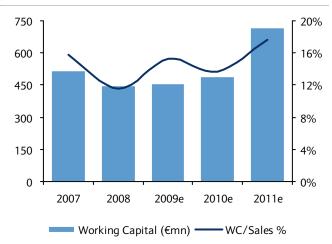
Source: Company data, Barclays Capital

# OP cash flow to sales



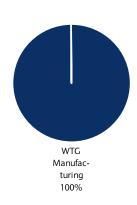
Source: Company data, Barclays Capital

# WC and WC/Sales



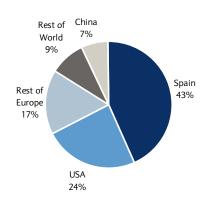
Source: Company data, Barclays Capital

#### Divisional revenue breakdown (2008)



Source: Company data, Barclays Capital

# Geographical revenue breakdown (2008)



Source: Company data, Barclays Capital

# Shareholder structure

Mar	ket value (€ 3.0bn) F	loat	80%
Тор	10 holders (% shares outstanding)		
1	Iberdrola SA		14.1%
2	Lolland SA		5.0%
3	BlackRock Investment Management		3.4%
4	Marsico Capital Management LLC		3.1%
5	BlackRock Global Investors		3.0%
6	Schroder Investment Management Ltd.		1.7%
7	AllianceBernstein LP		1.3%
8	Allianz Global Investors (Taiwan) Ltd.		1.2%
9	Gamesa Corporacion Tecnologica SA		1.2%
10	RCM (UK) Ltd.		1.1%

#### Corporate history

Gamesa began trading in 1976, focusing its business on the development of new technologies to be applied in emerging activities, and undertook projects in robotics, microelectronics, environment, composite materials, etc. In 1990, a substantial change was made to the company's shareholder structure, with Coporación IBV acquiring 40% stake, which, it increased to 80% in 1992 to become the major shareholder. Gamesa Eólica was set up in 1994, as a company dedicated to the assembly of wind turbines, while the development, construction and operation of wind farms began in 1996. Since 1997, Gamesa has gradually been adapting its organisational and corporate structure to achieve a sound positioning in the strategic renewable energy sector. The company has focused on developing its wind turbine manufacturing business, while realising the value of its development portfolio. In 2008, Gamesa and Iberdrola Renovables entered into a strategic agreement to develop and operate jointly a common portfolio of 22,000 MW in Spain (23% Gamesa, 77% IBR) and continental Europe (Gamesa 24%, IBR 76%).

#### Management

Jorge Calvet, Chairman and CEO: Mr Calvet was appointed in 2009 following the resignation of Guillermo Ulacia Arnaiz for personnal reasons. Mr. Calvet joined Gamesa's Board of Directors in October 2005 as an independent Board member. In 2007, he was appointed Vice Chairman of the Corporation. Additionally, he has been President of the Audit and Compliance Committee. Mr Calvet has a degree in Law and in Business Administration (ICADE) and an MBA in Finance from NYU Stern School of Management. He previously held management positions at Morgan Stanley, UBS and Fortis in New York, London and Madrid.

Internet Address: www.gamesa.es

#### Accounting issues

Gamesa retains intangible assets of €0.5mn which are being written off for their estimated useful economic lives. Gamesa has guaranteed the credit facilities arranged by its former subsidiary Gamesa Solar which was sold in 2008. In addition, the strategic agreement with Iberdrola Renovables provides for an exit in their joint venture through payment of either cash or Iberdrola Renovables stock. The company used technical criteria and economic data to assess the percentage of profit to recognise a percentage of profits and revenue for percentage of completion accounting. The company records €75mn in goodwill for the generation division on the balance sheet, held for sale.

# M&A

Jun 2008: Strategic agreement with Iberdrola Renovables (22,000MW JV)
Feb 2008: Sold Gamesa Solar for €261mn. EV/Sales 1.3x, EV/EBITDA 10.0x

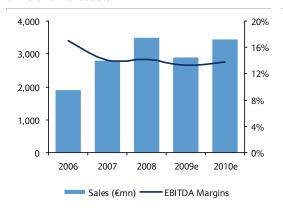
Source: Factset, Barclays Capital

#### Wind turbine manufacturing

Gamesa designs, manufactures and sells wind turbines, as well as operation and maintenance. Gamesa installed its first Gamesa G90-2.0 MW model in 2005. Along with the G87-2.0 MW and G90-2.0 MW models, which were designed for performance and returns on low wind sites, Gamesa Eólica now has completed its range of multi-megawatt wind turbines; consisting of four models with rotor diameters ranging between 80m and 90m. This allows application at all wind regimes. This product range accounted for 75% of MW sold over the last two years. Gamesa is currently developing the G10x 4.5MW generation of turbines, which have a multivariable control system, sectioned blades, hybrid towers, integrated gearboxes and cranes, and full converter technology. Geographically, Gamesa is concentrating its efforts on the opening-up of new markets and regions, especially in China and the US, where the company successfully entered into framework agreements for the sale of wind turbines. The company benefits from long-term supply agreements with key strategic accounts and Iberdrola Renovables by entering a 4.5GW framework agreement for deliveries in 2010-12 period.

Key competitors: Vestas, GE, Siemens, Enercon, Suzlon, REpower, Clipper, Nordex, Sinovel, Goldwind, Dongfang

# **Divisional forecasts**



#### Key issues

- Terms and conditions: the agreement signed with Iberdrola Renovables provides a significant amount of visibility for the 2010-12 period. However, we draw attention to the high level of flexibility included in the framework with regards to timing and geography of deliveries. The contract contains price revision clause according to commodity prices evolution.
- Expansion: The company has been expanding into the US and China which are likely to continue to drive the global wind market growth over the next five years. We however draw attention to the highly competitive nature of the Chinese market where the share of installations supplied by international turbine manufacturer significantly declined over the past three years. In the US, despite the most supportive regulatory environment ever in pace, the market has been slow to recover and we draw attention to significant operational management changes in 2009.

Source: Company data, Barclays Capital

# Gamesa Energia

Gamesa is also focusing on the development, construct and sale of wind farms for third parties. The company has a c23GW pipeline of assets in development in the US, Europe and Asia. On 13 June, 2008, Gamesa and Iberdrola Renovables entered into a strategic agreement to develop and operate jointly a common portfolio of 22,000 MW in Spain and continental Europe. Both parties will continue to develop their wind farm portfolio in Europe independently, allowing Gamesa to resume the wind farm sales in the region which had a significant impact on working capital in 2008 and 2009. In July 2011 both parties may exercise a put or call option on Gamesa Energía's businesses included in the strategic agreement, which may come about by cash payment or by jointly putting both parties' assets into a special purpose vehicle in which Gamesa will hold a 25% stake and Iberdrola Renovables a 75% stake. In the meantime, Gamesa is continuing to develop its US business plan to maximise the value of its portfolio in the region.

Key competitors: Theolia, EDF Energies Nouvelles, Goldwind, Acciona

# **Divisional forecasts**



Source: Company data, Barclays Capital

### Key issues

- Working capital: Though the 2009 agreement signed with Iberdrola allowed Gamesa to resume sales of wind farms in Europe, the capital intensive nature of the project business is likely to continue to impact working capital. We draw attention to the successful extension of the company's €1.2bn syndicated facility which provides some financial flexibility to the company over the next two years.
- Buy vs. develop: though the company has a long track record of developing and selling wind assets, the attractiveness of buying operational assets is in our view diminished given reduced turbine lead times from Tier 1 operators which are increasingly more inclined to carry some construction risks in order to win projects.

# Share price performance



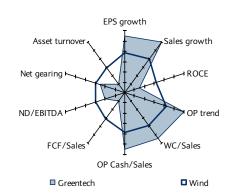
Source: Barclays Capital, FactSet

# Historical valuation (EV/EBIT)

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## Source: Bloomberg, FactSet, Barclays Capital

# Financial benchmarking



Source: Factset, Barclays Capital

## Greentech Energy (3-UW, DKR 16 PT)

Greentech's management secured distressed financing in 2009 with EDF Energies Nouvelle providing substantial logistic support towards completing projects. This agreement however has been costly for future projects, with EEN now enjoying the right (but not the obligation) to acquire a 50% stake in certain future project Greentech develops. This puts Greentech in the position that EEN may "cherry pick" those projects with the lowest risk and above average returns, while leaving Greentech with the remainder of projects. Either way, we believe the development has been positive for the company, which otherwise would likely to have secured finance at even less favourable terms. However, the stock performance for this year is likely to be affected by ongoing challenges in financing and the company continues to lack significant in-house operational experience or man power to build the remaining bulk of its development assets, we believe. We therefore believe while absolute upside potential remains for the stock, that tier one names in the wind farm sector represent a better risk reward profile and we maintain a cautious view on Greentech.

#### **Bulls and Bears**

#### **Bulls**

- Significant presence in Italy and Poland, where project IRRs remain significantly above European average
- Integrated business model significant pipeline of projects under development and well established local connections
- Partnership established with EDF EN provides a Tier 1 experience in securing financing and bringing asset on stream

#### **Bears**

- The company's ability to successfully complete project has been challenged in Italy where Greentech has experienced significant project delays
- Greentech's liquidity position limits the company's ability secure financing and deliver the value of its portfolio

# Earnings estimate and company guidance

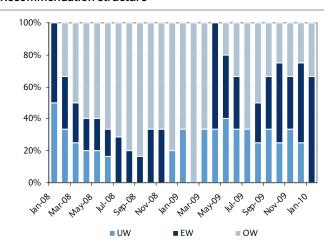
FY Dec, DKR	2007	2008	2009e	2010e	2011e
Revenue (mn)	51.3	83.6	85.3	261.0	410.4
EBIT (mn)	3.4	1.3	-230.4	103.7	164.9
Margin (%)	6.7%	1.6%	-270.0%	39.7%	40.2%
EBITDA (mn)	24.2	30.5	-200.7	110.4	179.6
EPS	-0.00	-0.24	-5.62	0.66	1.42
Consensus					
Revenue (mn)			83.5	208.9	341.0
EBIT (mn)			-162.7	77.1	181.9
EBITDA (mn)			31.5	133.8	232.3
EPS (€)			-3.86	0.84	1.67

#### Guidance:

■ 2009 Pre-tax loss of DKR 250mn

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: Barclays Capital, FactSet

# Divisional/group forecast

FY Dec, DKR mn	2008	2009e	2010e	2011e
<b>Sales</b> Group	83.6	85.3	261.0	410.4
EBIT margin (%) Group	6.7%	1.6%	-270.0%	39.7%

#### Calendar

- 29 March 2010 Annual Report for 2009
- 20 April 2010 Annual General Meeting
- 27 May 2010 Q1 2010 Results
- 30 August 2010 Q2 2010 Results
- 25 November 2010 Q3 2010 Results

Source: Company data, Barclays Capital

#### Sector view: 1-Positive

- Despite an upward trend in financing costs over the last 18 months, the outlook for project IRR remained stable to positive driven by a substantial reduction in transportation and balance of system costs as well as commodity prices decline passed through indexed turbine contracts.
- Wind operators without a demonstrable operational track record 4@2% liquidity constraints experienced an extremely challenging funding environment in the last 12 months. Though the appetite for financing quality projects improved, due diligences from banks on project, counterparty, technology and warranty risks have significantly lengthened financing negotiations. We are positive on tier 1 operators which offer balance sheet guarantees, track record, recurring cash flow base and diversified project portfolios.

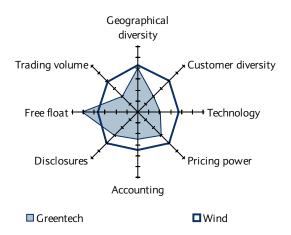
Source: Company data, Barclays Capital

# Price target sensitivity

DKR		Long term sales growth								
		2.0%	2.5%	3.0%	3.5%	4.0%	4.5%	5.0%		
	29.5%	20.1	18.6	17.0	15.5	13.9	12.4	10.9		
ı sales	30.0%	20.2	18.7	17.2	15.6	14.1	12.6	11.1		
turn or	30.5%	20.3	18.8	17.3	15.8	14.3	12.8	11.3		
Long term return on sales	31.0%	20.4	18.9	17.4	16.0	14.5	13.0	11.6		
Long te	31.5%	20.5	19.0	17.6	16.1	14.7	13.2	11.8		
	32.0%	20.6	19.1	17.7	16.3	14.9	13.5	12.0		
	32.5%	20.6	19.2	17.9	16.5	15.1	13.7	12.3		

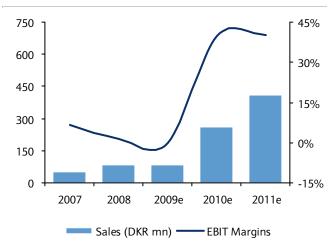
Source: Company data, Barclays Capital

# Competitive position and investability benchmarking



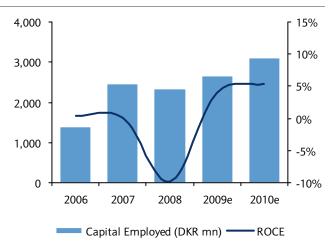
Source: FactSet, Company data, Barclays Capital

# Sales and EBIT



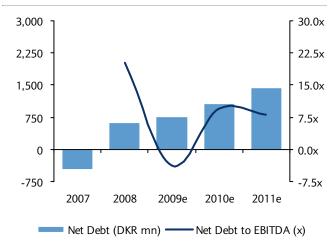
Source: Company data, Barclays Capital

# **CE and ROCE**



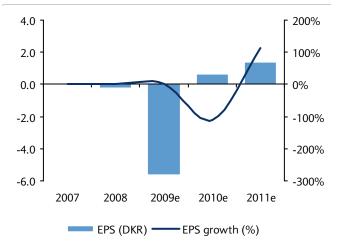
Source: Company data, Barclays Capital

# Net Debt to EBITDA



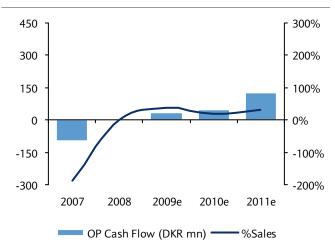
Source: Company data, Barclays Capital

# EPS and EPS growth



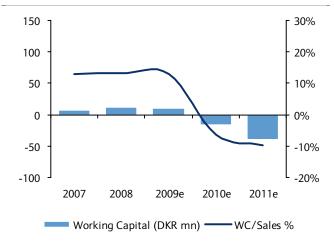
Source: Company data, Barclays Capital

# OP cash flow to sales



Source: Company data, Barclays Capital

# WC and WC/Sales



Source: Company data, Barclays Capital

#### Divisional revenue breakdown (2008)

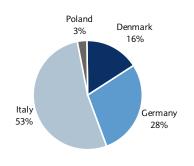
# Sale of electricity 100%

#### Corporate history

Greentech was originally founded as a public limited company on 3 October 1924 under the name Sydfyns Diskontobank as a local savings bank, which then became an investment company in real estate. In 1998, the company decided to focus entirely on renewable energy. In 2000, Mr. Kaj Larsen took over as Chief Executive Officer and rolled out an expansion programme focused on building a portfolio of wind energy projects under various stages of development and across a variety of attractive markets through selective acquisitions. The company acquired local developers in Italy, Poland and Denmark and has planned to enter a new strategic market to complement its geographic exposure. In 2009, Greentech announced that it entered into an agreement with EDF Energies Nouvelles which included 50% acquisition of the Monte Grighine project and an option to acquire equity stakes in Greentech projects in Italy and Poland which enters the ready to build stage by the end of 2012.

Source: Company data, Barclays Capital

#### Geographical revenue breakdown (2008)



#### Management

CEO: Kaj Larsen

MSc in economics. Employed with the Company as CEO in 2000

CFO: Mark Fromholt

MSc in Business Economics and Auditing. Employed with the Company in 2007, member of Management since 2008

Internet Address: www.greentech.dk

# M&A

2009: Strategic Agreement with EDF Energies Nouvelles (€ 63mn)

2007 Acquired PMB Engineering, Italy (US\$ 0.7mn)

2007 Acquired VEI 1 A/S, Denmark (US\$ 62.2mn)

2003 Acquired Wiatropol International, Poland (US\$ 1.4mn)

Source: Company data, Barclays Capital

# Shareholder structure

Mar	ket value (€ 150mn)	Float	81%
Тор	10 holders (% shares outstanding)		
1	Staxbo A/S		12.9%
2	Small Cap Denmark A/S		5.3%
3	GLG Partners LP		5.0%
4	KBC Asset Management (Belgium)		1.2%
5	UBS Global Asset Management (Japa	n)	0.9%
6	LD Invest AS		0.9%
7	Petercam Asset Management		0.8%
8	DnB NOR Kapitalforvaltning ASA		0.7%
9	Argenta Banque d'Epargne SA		0.7%
10	First Trust Advisors LP		0.7%

Source: Factset, Barclays Capital

# Accounting issues

Without qualifying their opinion, auditors highlight risks around liquidity which could impact the director's assessment of the company continuing as a going concern. The assessment of management is that the required liquidity will be sourced through a sale of assets or finance commitments. Measuring wind turbines under construction may be affected by considerable changes to estimates and assumptions on which the calculation of values is based which is presently the case for Poland and Italy. The discount rate used for commissioned wind turbines is 6.6% and 8.3% for turbines under construction. The company has agreed to issue 1.426m shares in connection with the final development of the Cagliari III project (48.1m shares in issue at the end of 2008).

#### Sale of electricity

Greentech's activities include the development, construction and operation of wind energy projects. The company operates projects that have either been purchased as operational wind parks or have become operational owing to the development and construction activities performed by Greentech. At present Greentech has a total capacity of 68 MW in operation. The company focuses on the EU, especially Italy and Poland, where it has experience in developing projects and a knowledge of local conditions. The company has a pipeline of projects exceeding 1GW. Greentech primary market is Italy which has very attractive tariffs for wind-based power and domestic ambitions of increasing wind power's share of total electricity production. The company has currently 168MW under construction (Monte Grighine, Minerva Messina and Cagliari II) and 513MW in development in Italy. The company experienced delays in the construction of its Italian projects and operational performance issues which have now been remediated. This has resulted in delays in obtaining financing which forced the company in order to complete the Monte Grighine project (98.9MW) to sell a 50% stake in the project to EDF Energies Nouvelles at a loss for the company. The joint venture has signed an agreement for the project for € c97mn with a term of 15 year, which remain conditions to final due diligence on the project. The project financing of the Minerva project was suspended since February 2009, however the company has renegotiated with the bank consortium a re-opening agreement which involves an increase in deposit (€ 2mn) from Greentech as well as a reduction in the facility amount (€ 8mn). Further development of the Cagliari project is in our view conditional upon final agreement on the Minerva project. Beyond Italy, Greentech is focusing on the development a 311MW portfolio in Poland; which has become increasingly attractive with rising electricity prices and stable green certificates outlook.

Key competitors: EDP Renovaveis, EDF Energies Nouvelles, Iberdrola Renovables, Theolia, Terna, Airtricity, Dong Energy

#### Divisional forecasts



Source: Company data, Barclays Capital

#### Key issues

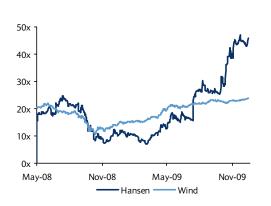
- Size: Greentech's size relative to Tier 1 operators leads to a greater dependence on the performance of individual projects. Adverse wind conditions, delays in commissioning and performance issues on individual projects could have significant effect on the group financial performance.
- **Financing:** Securing financing remains a key challenge for Tier 2 operators. Greentech experienced significant delays in obtaining project financing for its assets and though we believe the partnership initiated with EDF EN strengthen the company's position, Greentech's ability to fully realize the value of its portfolio is limited by the company's tight liquidity position
- Execution: In 2007-08, Greentech also experienced some delays in the full operation of its first Italian project: the Energia Verde project. After a three-month commissioning delay, and six months of operation, the turbines were stopped in September 2008 after the discovery of serious damages to the majority of the set blades installed. The retrofit programme was completed in 2009.
- Impairments: The company is capitalizing a material portion of project development subject to impairment tests. Over the course of 2009, the company made an impairment loss of DKR 83mn due to external factors which has lowered the probability of obtaining final permissions for the project.

#### Share price performance



Source: Factset, Barclays Capital

# Historic valuation (EV/EBIT)



Source: Bloomberg, Factset, Barclays Capital

# Financial benchmarking



Source: FactSet, Barclays Capital

#### Hansen transmissions (1-OW, GBP 1.3 PT)

A difficult combination of factors made last year a tough one for Hansen and despite our positive view on the company, management has a number of areas to foucs on this year. First, we believe the company is likely to continue to diversify away from its current main customers - Vestas and Gamesa - to reduce the concentration risk these companies represent. Second, we believe Hansen will look to reassess the timing and nature of its capacity expansion plans to meet customer requirements. Third, management continues to focus on maintaining pricing, while adjusting other terms. We believe this could make working capital arrangements more difficult for the company, perhaps leading to a greater need to access capital markets. Fourth, Hansen is likely to need to closely monitor its new customer base, in part to assess the risks associated with providing gearboxes to less-experienced Chinese entrants. Finally, we believe the company is likely to see ongoing challenges in terms of new entrants into the space both from Asia and from established conglomerates, while seeing some manufacturers investigate direct-drive technology, which poses an ongoing threat to the company. Over the year, we expect as volumes and backlogs show signs of improvement, companies such as Hansen are set to benefit particularly given the current and future customer base signed up for 2011, which should lead to higher capacity utilisation and an improvement in operating margin trends.

#### **Bulls and Bears**

#### Bulls

- Diversified customer base including Vestas, Gamesa, Suzlon, Siemens, REpower strengthened by two new relationships initiated in China in 2009
- Leading position in the multi –MW segment, fastest-growing wind segment which benefit from high barriers to entry
- Diversified geographic footprint with manufacturing facilities in Europe, India and China and potential medium term plans to follow customers in North America

#### **Bears**

- New product launches may impact warranty costs
- Flexibility in framework contracts from quarter to quarter or year to year may impact profitability and working capital
- Timing of expansion plans leading to increased cost base which, coupled with pricing pressure and low capacity utilisation, impacted margin in 2009

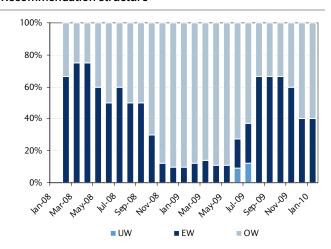
## Earnings estimate and company guidance

FY Mar, €	2008	2009	2010e	2011e	2012e
Revenue (mn)	421.5	609.2	610.3	775.7	997.6
EBIT (mn)	42.3	63.9	23.7	74.0	122.5
Margin (%)	10.0%	10.5%	3.9%	9.5%	12.3%
EBITDA (mn)	61.1	93.7	61.7	116.0	165.5
EPS	0.06	0.07	0.00	0.07	0.13
Consensus					
Revenue (mn)			687.6	876.3	980.5
EBIT (mn)			60.7	106.0	139.1
EBITDA (mn)			102.0	146.8	187.8
EPS (€)			0.06	0.11	0.16

Guidance: Flat Revenue in FY 2010

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: FactSet, Barclays Capital

# Divisional/group forecast

FY Mar, € mn	2009	2010e	2011e	2012e
Sales				
Wind	515.0	539.8	706.6	925.1
Industrial	94.0	70.5	69.1	72.5
EBIT margin (%)				
Wind	12.6%	3.5%	9.8%	12.7%
Industrial	9.6%	7.1%	7.0%	6.7%

Calendar

- 28 Jan 2010: Q3 2009 Results
- 17 May 2010: FY 2009 Results
- 24 Jun 2010: Annual Shareholders Meeting
- 26 Jul 2010: Q1 2010 Results
- 28 Oct 2010: Q2 2010 Results

Source: Company data, Barclays Capital

#### Sector view: 1- Positive

- Despite an upward trend in financing costs over the last 18 months, the outlook for project IRR remained stable to positive driven by a substantial reduction in transportation and balance of system costs as well as commodity prices decline passed through indexed turbine contracts.
- Lead times significantly reduced over the past twelve months, which had a negative impact on prices for unbooked capacities. Owing to finance ability and technology limitations, we are not concerned by the emergence of Chinese competition on the medium term. With financing improving and incentives to complete projects in the next two years in major markets, we believe turbine manufacturers and tier 1 supply chain players will benefit from a positive order momentum over the next 12-18 months.

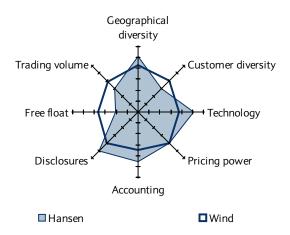
Source: Company data, Barclays Capital

# Price target sensitivity

Long term sales growth								
	2.4%	2.9%	3.4%	3.9%	4.4%	4.9%	5.4%	
11.5%	1.36	1.32	1.27	1.23	1.19	1.14	1.10	
12.0%	1.37	1.33	1.29	1.25	1.21	1.17	1.13	
12.5%	1.39	1.35	1.31	1.28	1.24	1.20	1.16	
13.0%	1.40	1.37	1.33	1.30	1.26	1.23	1.19	
13.5%	1.42	1.39	1.35	1.32	1.29	1.26	1.23	
14.0%	1.43	1.40	1.37	1.34	1.32	1.29	1.26	
14.5%	1.45	1.42	1.39	1.37	1.34	1.32	1.29	
	12.0% 12.5% 13.0% 13.5% 14.0%	11.5% 1.36 12.0% 1.37 12.5% 1.39 13.0% 1.40 13.5% 1.42 14.0% 1.43	2.4%     2.9%       11.5%     1.36     1.32       12.0%     1.37     1.33       12.5%     1.39     1.35       13.0%     1.40     1.37       13.5%     1.42     1.39       14.0%     1.43     1.40	2.4%     2.9%     3.4%       11.5%     1.36     1.32     1.27       12.0%     1.37     1.33     1.29       12.5%     1.39     1.35     1.31       13.0%     1.40     1.37     1.33       13.5%     1.42     1.39     1.35       14.0%     1.43     1.40     1.37	2.4%         2.9%         3.4%         3.9%           11.5%         1.36         1.32         1.27         1.23           12.0%         1.37         1.33         1.29         1.25           12.5%         1.39         1.35         1.31         1.28           13.0%         1.40         1.37         1.33         130           13.5%         1.42         1.39         1.35         1.32           14.0%         1.43         1.40         1.37         134	2.4%         2.9%         3.4%         3.9%         4.4%           11.5%         1.36         1.32         1.27         123         1.19           12.0%         1.37         1.33         1.29         1.25         1.21           12.5%         1.39         1.35         1.31         1.28         1.24           13.0%         1.40         1.37         1.33         130         1.26           13.5%         1.42         1.39         1.35         132         1.29           14.0%         1.43         1.40         1.37         134         1.32	2.4%         2.9%         3.4%         3.9%         4.4%         4.9%           11.5%         1.36         1.32         1.27         1.23         1.19         1.14           12.0%         1.37         1.33         1.29         1.25         1.21         1.17           12.5%         1.39         1.35         1.31         1.28         1.24         1.20           13.0%         1.40         1.37         1.33         130         1.26         1.23           13.5%         1.42         1.39         1.35         1.32         1.29         1.26           14.0%         1.43         1.40         1.37         1.34         1.32         1.29	

Source: Company data, Barclays Capital

# Competitive position and investability benchmarking



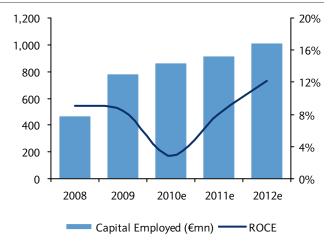
Source: FactSet, Company data, Barclays Capital

# Sales and EBIT



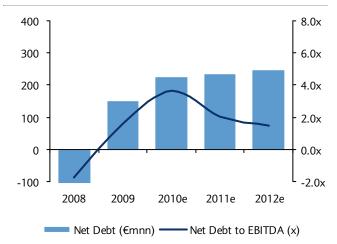
Source: Company data, Barclays Capital

# **CE and ROCE**



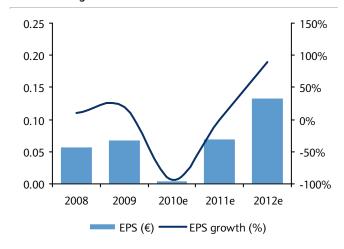
Source: Company data, Barclays Capital

# Net Debt to EBITDA



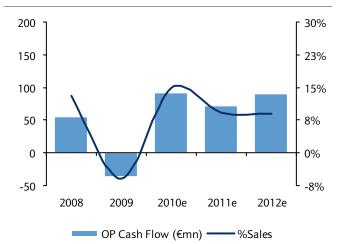
Source: Company data, Barclays Capital

# EPS and EPS growth



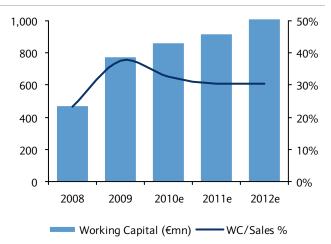
Source: Company data, Barclays Capital

# OP cash flow to sales



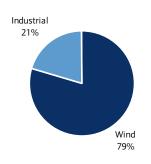
Source: Company data, Barclays Capital

# WC and WC/Sales



Source: Company data, Barclays Capital

#### Divisional revenue breakdown (2008)

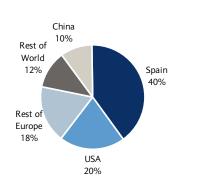


#### Corporate history

Hansen Transmissions International (HTI) was formed in 1966 following the merger of La Mécanique Générale and "MGH" (Machinery & Gear Hansen). In 1969, HTI joined Thomas Tilling Ltd., a London-based holding company. That company was acquired by BTR plc in 1983. In 1993, the Hansen group merged with the UK-based Brook Crompton Group, a manufacturer of electric motors, to form Brook Hansen. In February 1999, BTR Plc and Siebe Plc merged and changed names to Invensys. For a short time, Hansen was part of the Rexnord Product Group within the Invensys organisation until it was sold to Allianz Capital Partners. Today, Hansen Transmissions' main shareholder is Suzlon Energy and the company is listed on the London Stock Exchange.

Source: Company data, Barclays Capital

#### Geographical revenue breakdown (2008)



#### Management

Mr. Ivan Brems, CEO, joined the group in 1974 and became chief executive officer in 2006. Previously he was vice president of corporate marketing and business development, a post he held for five years. He has over 25 years of experience in sales and marketing with Hansen.

Mr. Alex De Ryck, CFO, joined the company in 2004 as chief financial officer. Prior to this, he held a number of positions, including chief executive officer of Esselte Belgium and Eldon Belgium, chief financial officer of the Dymo Group and the Eldon Enclosures Group and finance manager at Honeywell Europe.

Internet address: www.hansentransmissions.com

Source: Company data, Barclays Capital

# Shareholder structure

Mai	ket value (€ 800mn)	Float	72%
Тор	10 holders (% shares outstanding)		
1	Suzlon Energy Ltd.		26.0%
2	Ecofin		10.0%
3	Ecofin Ltd.		12.0%
4	Wellington Management Co. LLP		4.9%
5	I. G. Investment Management Ltd.		2.1%
6	Aviva Plc		2.0%
7	BlackRock Investment Management (U	K)	1.8%
8	Aviva Investors Global Services Ltd.		1.2%
9	GLG Partners LP		1.0%
10	APG Asset Management		1.0%

Source: Factset, Barclays Capital

## Accounting issues

The company carries intangible assets of  $\in$ 5.2mn at 31 March 2009 (from  $\in$ 2.9mn). At the end of the accounting period, Hansen has  $\in$ 4.2mn provided for warranty costs against future claims.

# M&A

The company has put in place certain arrangements in response to the announcement made by Suzlon Energy Limited on 15 June 2009 that it is evaluating alternatives regarding its shareholding in Hansen and that this may or may not lead to Suzlon disposing of some or all of its stake in Hansen to a third party. These arrangements include the constitution of an Independent Committee of the Board of Directors and the appointment of Goldman Sachs International and Bank of America Merrill Lynch as its financial advisers.

#### Wind

Hansen Transmissions International is a gearbox designer, manufacturer and supplier to four of the five largest manufacturers of gear-driven turbines. Hansen has in particular a leading market position on the multi-MW segment and plans to increase its manufacturing capacity from 7.1GW in 2008 to 14,300MW by 2012 with local facilities in India and China. In addition, the company has highlighted the high medium-term growth potential for the US market, which represents an attractive opportunity for Hansen to widen its geographic footprint. The company was challenged in 2009 by the reduction of scheduled deliveries coupled with pricing pressure. The focus for the company is therefore directed towards efficiently managing inventories, cost-savings programmes on capex and opex while developing new customer relationships, particularly in China where Hansen added two domestic Chinese customers in the second half of 2009. The company has supplied over 20,000 gearboxes for wind turbine applications, which represents an attractive opportunity to generate revenues and margins by offering repair, upgrades, inspection and preventive maintenance services. Hansen's main product is the Hansen W4 1.5 – 4.5MW, and it is also developing larger gearboxes of up to 6MW. Hansen main customers are Vestas, Gamesa, Suzlon, Siemens and REpower.

Key competitors: Bosch Rexroth, Winergy, Moventas, Eickhoff, China High Speed, Brad Foote

#### **Divisional forecasts**



#### Key issues

- Hansen depends on a limited number of customers in the wind turbine market.
   Flexibility in framework contracts from quarter to quarter or year to year may impact profitability and working capital
- Despite positive comments on the outlook for the second half of FY 2010 (March), new orders timing remain uncertain and may continue to drive high working capital and low capacity utilisation
- The majority shareholding of Suzlon could represent a challenge to secure future orders with Suzlon's competitors
- New product launches, especially on large multi MW gearboxes may impact warranty costs

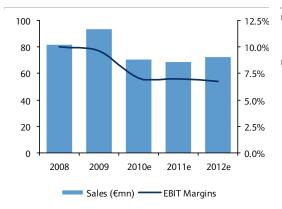
Source: Company data, Barclays Capital

#### Industrial

In addition to wind turbine applications, Hansen supplies gearboxes and drive package solutions to a wide range of specialist applications in key industries. The company's competitive advantages lie in its technological track record, distribution and support networks. Hansen's industrial product offer includes over 100 applications covering a vast range of torque, power and configuration requirements. The industrial gearbox proved resilient in the first half of FY 2010, driven mainly by mining and power generation industries where Hansen supplies gearboxes for conveyor, mixer and pump applications as well as for dry and wet cooling tower fan drives. In the industrial gearbox segment, Hansen's main product is the Hansen P4, the fourth generation of standardised industrial gearbox. In addition, it is broadening its product portfolio and intends to launch the M-series that will complement the end of the of the P4 torque range.

Key competitors: David Brown/Textron, Falk/Rexnord, Moventas, Siemens (Flender), Sumitomo Heavy Industries

#### Divisional forecasts



Source: Company data, Barclays Capital

# Key issues

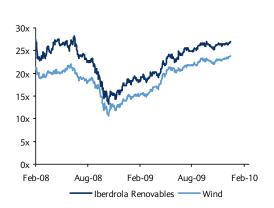
- Despite existing customer relationships, the outlook for demand of industrial gearboxes has materially deteriorated and we expect sales to decline 10% yoy in FY 2010
- Hansen typically supplies on a one-off contract basis for its industrial gearbox clients, leading to high variability of activity level for the division

#### Share price performance



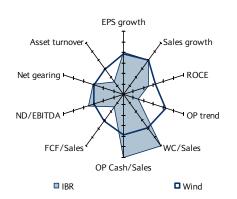
Source: FactSet, Barclays Capital

# Historic valuation (EV/EBIT)



Source:, Bloomberg, FactSet, Barclays Capital

# Financial benchmarking



Source: FactSet, Barclays Capital

#### Iberdrola Renovables (1-OW, € 3.95 PT)

Iberdrola Renovables (IBR) continues to be a global leader in the development of renewable projects. Over the course of the year, we expect the market to respond more favourably to developing macro trends that will support the installation of additional renewable power generation projects: an improving regulatory environment, for both developed and developing economies such as Spain, China and India; the potential for offshore wind projects, which initially are likely to carry a greater risk (and therefore reward) profile; and possible entry into solar project developments in developed territories where IBR has a presence. IBR has reaffirmed its strategic relationship with Gamesa and also its agreement to build out some joint pipeline assets in Europe - the challenge we believe will be to cement this (renegotiated) transaction through actual operating assets being developed and brought into service, and then agree a valuation to buy out Gamesa's minority stake. We believe the turbine supply agreements IBR has in place to be some of the most competitive available in the market on a contract basis, which should offer the company sufficient scope to raise installations and generate attractive returns.

#### **Bulls and Bears**

#### Bulls

- Iberdrola's commitment to IBR was renewed through a US\$2bn bond issuance and a two-year purchase agreement of electricity production in Spain
- Well-diversified project portfolio and turbine supply agreements which provides geographical and timing flexibility to optimally execute on its projects
- Strong balance sheet with relatively higher share of capex covered by operating cash flow relative to peers

#### Bears

- Relatively lower-growth and US-oriented profile relative to main peer EDP Renovaveis
- Exposure to other non-core activities, such as gas storage and co-generation plant in the US

# Earnings estimate and company guidance

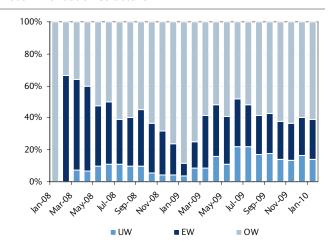
FY Dec, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	953.0	2,030.3	2,334.2	2,684.7	3,117.9
EBIT (mn)	346.9	730.9	788.3	973.5	1,260.5
Margin (%)	36.4%	36.0%	33.8%	36.3%	40.4%
EBITDA (mn)	563.9	1,206.8	1,360.6	1,608.9	1,976.9
EPS	0.03	0.10	0.10	0.13	0.15
Consensus					
Revenue (mn)			2,160.7	2,595.5	3,079.5
EBIT (mn)			713.1	918.9	1,112.9
EBITDA (mn)			1,313.0	1,615.7	1,962.3
EPS (€)			0.09	0.11	0.13

#### Guidance:

- 2009: >30% increase in production and a double-digit growth in EBITDA
- 2010: >20% increase in production a significant increase in EBITDA

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: FactSet, Barclays Capital

# Divisional/group forecast

FY Dec, € mn	2008	2009e	2010e	2011e
Sales				
Renewables	1383.5	2196.7	2551.3	2984.5
Other	237.6	137.5	133.4	133.4
EBIT margin (%)				
Renewables	67.8%	67.2%	67.2%	67.7%
Other	na	na	na	na

Source: Company data, Barclays Capital

# Price target sensitivity

€				Long term	sales grow	th		
		4.5%	5.0%	5.5%	6.0%	6.5%	7.0%	7.5%
	42.9%	3.90	3.88	3.85	3.82	3.79	3.77	3.74
Long term return on sales	43.4%	3.94	3.91	3.89	3.86	3.84	3.82	3.79
turn or	43.9%	3.97	3.95	3.93	3.91	3.89	3.87	3.85
erm ret	44.4%	4.00	3.98	3.97	3.95	3.93	3.92	3.90
Long te	44.9%	4.03	4.02	4.01	3.99	3.98	3.97	3.95
_	45.4%	4.06	4.05	4.04	4.03	4.03	4.02	4.01
	45.9%	4.10	4.09	4.08	4.08	4.07	4.07	4.06

Source: Company data, Barclays Capital

#### Calendar

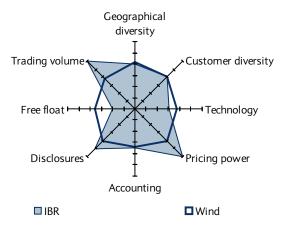
Results date not yet available

Source: Company data, Barclays Capital

#### Sector view: 1- Positive

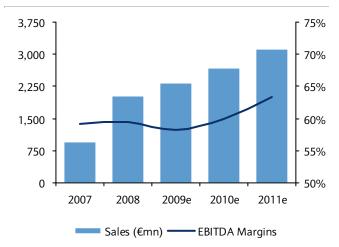
- Despite an upward trend in financing costs over the last 18 months, the outlook for project IRR remained stable to positive, driven by a substantial reduction in transportation and balance of system costs as well as commodity prices decline passed through indexed turbine contracts.
- Wind operators without a demonstrable operational track record and liquidity constraints experienced an extremely challenging funding environment in the last twelve months. Though the appetite for financing quality projects improved, due diligence from banks on project, counterparty, technology and warranty risks have significantly lengthened financing negotiations. We are positive on tier 1 operators which offer balance sheet guarantees, track record, and a recurrent cash flow base and diversified project portfolios.

# Competitive position and investability benchmarking



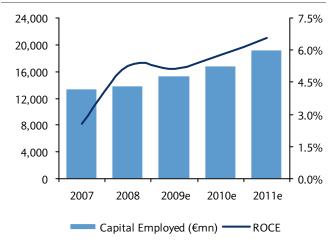
Source: FactSet, Company data, Barclays Capital

# Sales and EBITDA



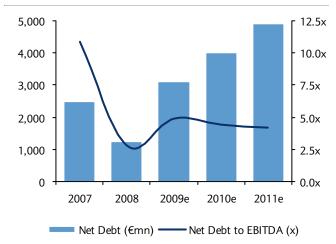
Source: Company data, Barclays Capital

# **CE and ROCE**



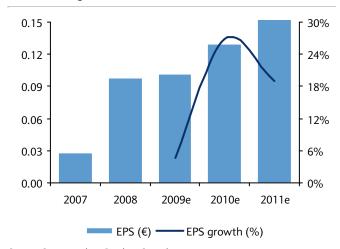
Source: Company data, Barclays Capital

# Net Debt to EBITDA



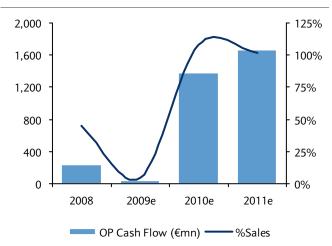
Source: Company data, Barclays Capital

# EPS and EPS growth



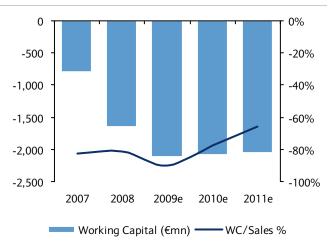
Source: Company data, Barclays Capital

# OP cash flow to sales



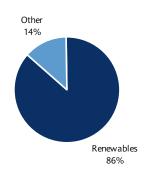
Source: Company data, Barclays Capital

# WC and WC/Sales



Source: Company data, Barclays Capital

#### Divisional revenue breakdown (2008)

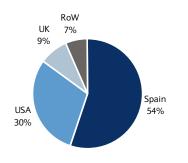


#### Corporate history

The company was incorporated in 2001 as a 100% subsidiary of Iberdrola to consolidate the group's entire power generation activities from renewable sources. Iberdrola, as part of its 2002-06 strategic plan, decided to expand its installed capacity from 1GW up to 3.8GW. Primarily through internal development but also selective acquisitions in Europe (Gamesa, C. Rokas), Iberdrola Renovables reached an installed capacity of 4.4GW at the end of 2006. The company also strengthened its relationship with Gamesa through a long-term turbine supply agreement and project purchases covering the 2007-09 period. Iberdrola Renovables acquired Scottish Power in 2007, which increased the group's installed capacity by around 2GW, considerably reinforcing its local presence in North America. Iberdrola Renovables was listed in December 2007 and remains an 80%-owned subsidiary of Iberdrola Group.

Source: Company data, Barclays Capital

# Geographical revenue breakdown (2008)



# Management

Xabier Viteri Solaun, CEO: Holds a degree in Electrical Industrial Engineering and a PDG from IESE. Mr. Viteri Solaun has previously held management positions within Iberdrola and is a board member of Eolicas de Euskadi and Rokas.

Jose Ángel Marra Rodríguez, CFO: Industrial Engineer of ICAI University, Mr Marra Rodríguez served as CFO of Indra Sistemas since December 2000. Previously, he occupied several positions at BBVA and the European Productivity Institute.

Website: www.iberdrolarenovables.es

Source: Company data, Barclays Capital

# Shareholder structure

Mai	rket value (€ 13.9bn)	Float	20%						
Тор	Top 10 holders (% shares outstanding)								
1	Iberdrola SA		80.0%						
2	BlackRock Investment Manage	ement	1.5%						
3	Norges Bank Investment Mana	gement	0.4%						
4	T. Rowe Price Associates, Inc.		0.3%						
5	Allianz Global Investors		0.2%						
6	William Blair Capital Managem	ent	0.2%						
7	KBC Asset Management Ltd.		0.2%						
8	DWS Investment GmbH		0.2%						
9	RCM		0.2%						
10	Standard Life Investments		0.2%						

Source: Factset, Barclays Capital

# Accounting issues

IBR uses discount rates of 6.7-7.9% for US wind projects in 2008 (against 5.5-7.6% in 2007) for the purpose of assessing recoverability in impairment tests. IBR assumes wind farms have an estimated useful life of 20 years. The company reports €1.589bn of goodwill at the end of 2008 subject to an annual impairment review.

#### M&A

2009: Finalisation of C. Rokas acquisition

2008: JV with Gamesa to develop a 22GW portfolio in Spain and Europe

2007: Acquisition of Scottish Power (2,364MW)

#### Wind

Iberdrola Renovables is the world-leading producer of electricity from wind energy with an installed capacity of 10.8GW as at the end of 2009 which the company expects to expand to 12.5GW by the end of 2010. The company is developing a portfolio of 57GW which includes 10GW jointly developed with Gamesa. Both the companies will continue to independently develop their pipelines until 1 July 2011 whereafter IBR will have the option to either purchase the combined portfolio or jointly develop the projects through a Joint Venture (IBR 75%, Gamesa 25%). The company development is focused on the US, Spain and the UK, which together represent around 75% of the total project pipeline.

The company's long-term contracts, in particular with Gamesa, offers potential for flexibility in the purchase of turbines as well as pricing. The index-linked nature of turbine ASPs has benefited the company over the course of 2009. Iberdrola Renovables has contracted for its forecast requirements until 2012. The company believes it enjoys lower than the broader wind industry capital expenditure per MW. IBR has an in-house O&M strategy and despite the trend towards higher O&M costs driven by the number of turbine maintenance contracts expiring over the next two years, the company expects its operating cost/MW to be flat over the next three years as a result of the growth in new installation driving economies of scale at the corporate level.

Key competitors: EDP Renovaveis, EDF Energies Nouvelles, FPL, Edison, RWE Innogy, E.ON, Terna Energy, Theolia, Greentech

#### Divisional forecasts

#### 3,750 75% 3.000 73% 2.250 71% 1,500 69% 67% 750 0 2007 2008 2009e 2010e 2011e Sales (€mn) -EBITDA Margins

#### Key issues

- Capex variability: though maximising return on investment through a selective project approach makes good strategic sense, the company's annual capex commitment has been more variable than peers.
- Regulatory support: Iberdrola is increasingly diversifying its project portfolio, however the company remains dependant on the regulatory support for wind energy in Spain, the US and the UK, which together represents 75% of total projects pipeline.

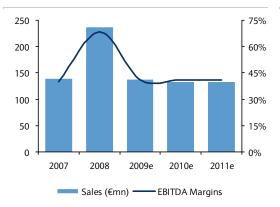
Source: Company data, Barclays Capital

#### Other

To complement its wind portfolio, Iberdrola Renovables has also 340MW of minihydro plants. The company has exposure to offshore wind development, biomass, photovoltaic and Marine energy; however, these activities are not an area of primary focus for the company and are unlikely to represent a material share of the next three year investment plans. In addition to renewable energy activities, Iberdrola Renovables owns and operates gas co-generation facilities, an energy management business and offers gas storage services through owned gas storage facilities.

Key competitors: Abengoa, FPL, Solar Millennium

## **Divisional forecasts**



Source: Company data, Barclays Capital

# Key issues

 We believe the majority of gas activities are non core to IBR and do not represent an area of focus or future investment for the company. However, it favorably positions the company in the region where it operates to secure grid access.

#### Share price performance



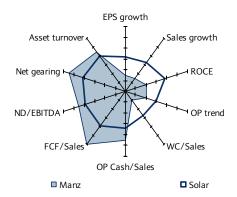
Source: FactSet, Barclays Capital

### Historic valuation (EV/EBIT)

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Source: Bloomberg, FactSet, Barclays Capital,

# Financial benchmarking



Source: FactSet, Barclays Capital

#### Manz Automation (3-UW, € 55 PT)

Manz Automation's outlook for 2010 looks to be challenging, but as demand returns for solar photovoltaics and the associated equipment to reduce the cost of energy, M5Z is placed to benefit from the rebound. A number of issues are yet to be resolved this year. First, the company has to resolve outstanding negotiations with major customers that are seeking to defer or cancel orders from the company. We believe M5Z will seek to maximise the economic compensation while preserving the ongoing relationship with major customers who could provide additional future orders. Second, the company is developing a Li-Ion car battery which management believes will significantly lower costs as the technology develops and then secures its first orders. We regard this evolution as an important development to justify the investment away from the core solar end market. Third, the company has ongoing investment in the Asian LCD market, where although a declining demand trend has shown signs of a bottoming out, has consumed management time. Fourth, Manz continues to consider additional acquisitions, we believe it will need to carefully focus on its core business to ensure it benefits from any upturn over the course of the year and not see its competitive position diminished. Finally, as the ongoing co-operation with Roth & Rau continues there may be some potential synergies and corporate benefits from a closer partnership, perhaps beginning with an equity link to align economic interests of both independent businesses.

#### **Bulls and Bears**

#### Bulls

- Trend towards fully integrated and automated lines to reduce solar PV cost of energy
- Widening product offering and technology development leveraged from acquisitions and synergies between business lines (solar and LCD)
- Strategic alliances with Roth & Rau for the supply of turnkey solar cell lines and cost reduction potential from manufacturing activities in Taiwan

#### Bears

- Weak order backlog development and low visibility on future demand relative to peers
- Low-cost competition from Taiwan and China has led to price declines of c.30-40% in 2009 and expected to drop by an additional 10% in 2010
- Relatively lower barrier to entry on the Automation segment relative to other cell manufacturing equipment

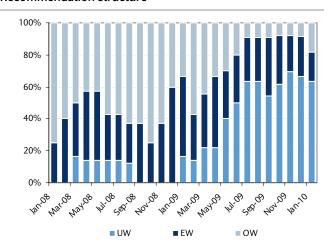
## Earnings estimate and company guidance

FY Dec, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	71.2	236.5	82.3	120.1	173.4
EBIT (mn)	10.0	28.6	-13.3	7.8	12.4
Margin (%)	14.1%	12.1%	-16.2%	6.5%	7.1%
EBITDA (mn)	11.6	34.1	-5.3	15.0	19.2
EPS	1.62	3.86	-2.38	0.90	1.37
Consensus					
Revenue (mn)			89.9	135.3	179.9
EBIT (mn)			-10.4	8.1	18.0
EBITDA (mn)			-4.1	14.6	25.3
EPS (€)			-1.88	1.22	2.86

Guidance: 2009 Revenues of €80-85mn with positive EBIT in Q4

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: FactSet, Barclays Capital

# Divisional/group forecast

FY Dec, € mn	2008	2009e	2010e	2011e
Sales				
Systems Solar	51.1	141.5	36.1	66.2
Systems Icd	8.7	46.5	30.3	30.2
System aico	11.5	12.9	12.0	18.0
EBIT margin (%)				
Systems Solar	15.4%	17.1%	-43.5%	7.6%
Systems Icd	13.1%	7.7%	5.9%	5.7%
System aico	9.1%	5.2%	5.1%	5.7%

Source: Company data, Barclays Capital

# Price target sensitivity

€	Long term sales growth							
	58.1	3.5%	4.0%	4.5%	5.0%	5.5%	6.0%	6.5%
S	8.5%	54.9	53.4	52.0	50.5	49.1	47.6	46.1
Long term returnon sales	9.0%	55.9	54.6	53.3	52.0	50.7	49.4	48.1
turno	9.5%	57.0	55.8	54.6	53.5	52.3	51.2	50.0
E E	10.0%	58.0	57.0	56.0	55.0	53.9	52.9	51.9
ong te	10.5%	59.0	58.2	57.3	56.4	55.6	54.7	53.8
3	11.0%	60.1	59.4	58.6	57.9	57.2	56.5	55.8
	11.5%	61.1	60.5	60.0	59.4	58.8	58.3	57.7

Source: Company data, Barclays Capital

#### Calendar

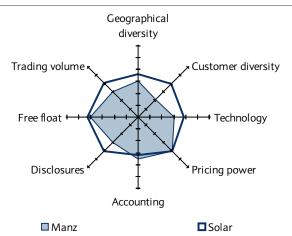
- 30 Mar 2010: FY 2009 Results
- 11 May 2010: Q1 2010 Results
- 22 Jun 2010: Annual Meeting of Shareholders
- 10 Aug 2010: Q2 2010 Results
- 08 Nov 2010: Q3 2010 Results

Source: Company data, Barclays Capital

#### Sector view: 1- Positive

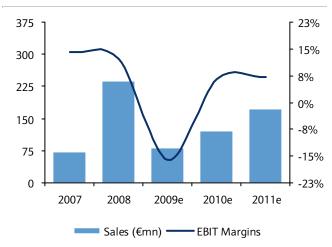
- The solar sector was affected in 2009 by a sudden shift in supply demand driven by regulatory changes in Spain and financing constraint. Industry fundamentals have significantly improved with financing availability and demand showing some signs of elasticity from lower installation costs post renegotiations across the supply chain.
- Equipment manufacturers benefit from asset-light business models with lower pressure on working capital than the solar PV supply chain. Over 2010, we expect order intake to accelerate as a result of higher demand and pricing visibility. In addition, we expect a wave of equipment replacement in 2010 as a significant share of the existing production capacity at the industry aggregate level has become uneconomic following the 30-50% ASP decline experienced in 2009.

# Competitive position and investability benchmarking



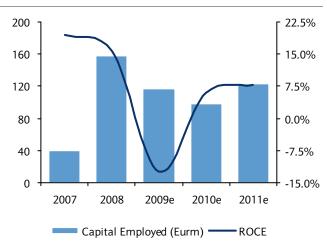
Source: FactSet, Company data, Barclays Capital

# Sales and EBIT



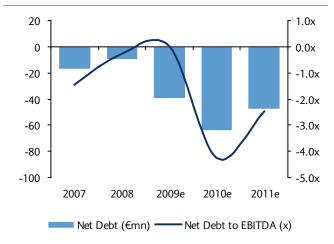
Source: Company data, Barclays Capital

# **CE and ROCE**



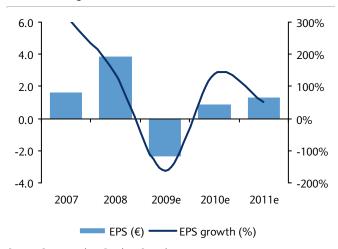
Source: Company data, Barclays Capital

# Net Debt to EBITDA



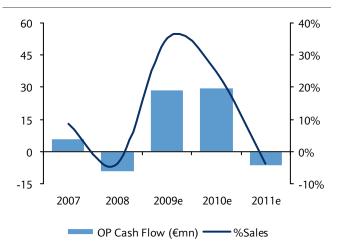
Source: Company data, Barclays Capital

# EPS and EPS growth



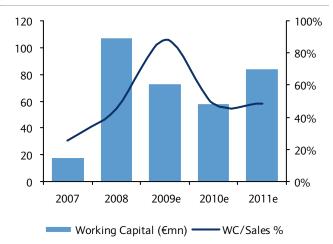
Source: Company data, Barclays Capital

# OP cash flow to sales



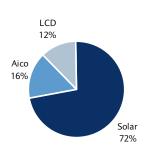
Source: Company data, Barclays Capital

# WC and WC/Sales



Source: Company data, Barclays Capital

#### Divisional revenue breakdown (2008)

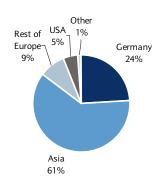


#### Corporate history

Manz Automation was founded in 1987 by Dieter Manz. It has developed through R&D efforts and selective acquisitions, gaining 20 years expertise in the field of robotics, image processing and control engineering. Manz Automation has followed an industry-specific approach in order to develop dedicated automated solutions to its customers. The company's industry diversification from LCD to solar has been implemented, realising significant synergies in the manufacturing process. Between 2007 and 2008, Manz Automation acquired a 70% stake in Intech Machines, 80% in Christian Majer and 90% in Bohm Electronic Systems Slowakei to reinforce its global footprint and technology platform in the LCD and solar businesses. Manz has emerged from a supplier for handling to a supplier for entire systems, including process machines.

Source: Company data, Barclays Capital

# Geographical revenue breakdown (2008)



# Management

CEO: Dieter Manz CFO: Mr. Martin Hipp

Internet address: www.manz-automation.com

Source: Company data, Barclays Capital

# Shareholder structure

Mai	ket value (€ 308mn) Fl	oat	48%
Тор	10 holders (% shares outstanding)		
1	MANZ DIETER		44.5%
2	MANZ ULRIKE		4.7%
3	ANGERHOFER OTTO		3.3%
4	Fidelity Management & Research		3.0%
5	Swisscanto Asset Management AG		2.8%
6	BlackRock Investment Management (UK)	)	2.5%
7	Deka Investment GmbH		2.4%
8	UBS Global Asset Management Switzerla	nd	2.0%
9	LBBW Asset Management Investment		1.8%
10	KBC Asset Management Ltd. (Ireland)		1.6%

## Accounting issues

During the year, the company capitalised €3.9mn (2007: €2.4mn). Construction contracts are recording using the cost to cost method and partial profits realised by the ratio of the contract costs.

# M&A

2009: Acquisition of minority interests in Intech Machines

2008: 75% stake in Intech Machines (Taiwan)

2008: 90% stake in Bohm Electronic Systems Slowakei (Slovakia)

2008: 100% stake in Christian Majer (Germany)

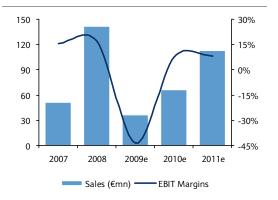
Source: Factset, Barclays Capital

#### Solar

Manz Automation supplies equipment for solar cell and thin film module manufacturers. These include strategic partnerships with production line equipment manufacturers Roth & Rau and Applied Materials, as well as key accounts, such as Q-cells, Yingli and Wurth solar. The company focuses on fully automated factories in which systems are used, in particular, to efficiently link individual production stages. In addition, Manz Automation offers solutions for various production stages, such as quality assessment and laser-edge isolation. The company has also developed a full cell line back-end solution that is offered individually and also through a turnkey line partnership with Roth & Rau. In thin film technology, the company is focusing on developing systems for laser-edge deletion and laser & metallical scribing. In 2008, Manz Automation further enhanced its competitive position in the thin film business through a strategic alliance with Rofin-Sinar Laser (laser-cutting technology) and Masdar PV (thin-film module manufacturer) for the development of new dedicated equipment. Manz is also developing glass cleaning solutions, leveraged from Intech's technology expertise in chemical processes.

Key competitors: ASYS Automatisierungssysteme GmbH, Centrotherm, GS Electronic Vertriebs und Service GmbH, IB Voqt, Innolas, Schiller Automation, Aerotech Inc, Meyer Burger

#### **Divisional forecasts**



# Key issues

- Uncertainty on end-market demand and pricing has resulted in delays in the investment decision from solar cell manufacturers. The segment remains characterised by material surplus production capacity which, in our view, limits order backlog development to Tier 1 suppliers from Asia, expansion plans from European players into lower-cost countries and replacement cycle to upgrade existing lines, Should visibility not improve over the course of 2010, the company highlighted it may have to implement more significant staff and cost adjustments.
- We believe that despite automation contributing to reducing solar cells unit costs, the company is currently not negotiating contracts from a position of strength with its customers. The company's German operation utilisation fell below 50% and we believe the cell manufacturing equipment market has become increasingly competitive on pricing.

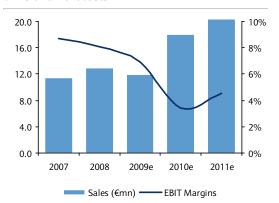
Source: Company data, Barclays Capital

#### Aico

The aico division sells systems developed by the solar and LCD division's to other industries. This allows the realisation of synergies and economies of scale for industrial robots, grabbers, computers, control software, and image-processing systems. Manz Automation serves diverse sub-segments, such as hard metal tools manufacturers and the packaging industry. In addition, Manz Automation is planning to continue to enter new markets and further diversify its end market exposure. In 2009, the company has increased its involvement in the industrial production of li-ion batteries and has established a cooperation partnership with Li-Tec Battery, Evonik Industries, Deutsche Accumotive and Daimler. The company has received and completed a € 2mn contract in 2009 and received a follow order to develop new efficient manufacturing technologies for li-ion batteries, which is likely to open up growth opportunities.

Key competitors: Komax, Selco, Fusion systems

# Divisional forecasts



Source: Company data, Barclays Capital

# Key issues

■ Despite long-standing relationships with existing customers, the aico division's growth remains related to the economic development of its sub-markets and a wide range of investment cycles in the industries. We expect the company to continue to suffer from weaknesses in demand for the packaging and tool manufacturing industries. Manz is focusing on entering new markets in order to offset demand contraction from existing applications. This is likely to be coupled with an increase in R&D expenses that the company has been materially capitalising, increasing in our view the risk of future write-downs.

# LCD

Products primarily include automation systems for handling glass substrates and wet chemical cleaning solution to LCD flat screen manufacturers. In addition to low breakage rates, throughput speed is an important success factor. The product range also includes Intech etching, stripping, scrubbing and coating equipments for LCD application manufacturers. The LCD market has been characterised by a relatively high elasticity of demand to prices, a trend towards larger screen which favors LCD over plasma Technology and growth prospects primarily driven by Asia. The company benefitted from an improvement in activity levels over the course of 2009 to reach full capacity utilisation in its Asian operations over the fourth quarter. This volume uptick has been coupled with a reduced cost pressures related to significant economies of scale and cost-reduction programmes realised by LCD screen manufacturers.

Key competitors: Sharp, Philips, Wintek, Samsung, Hyundai, Picvue

# **Divisional forecasts**

#### 50 15% 12% 40 30 9% 20 6% 10 3% 0 0% 2007 2008 2009e 2010e 2011e Sales (€mn) ——EBIT Margins

Source: Company data, Barclays Capital

# Key issues

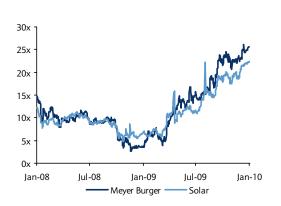
2008 was a very successful year for LCD equipment manufacturers. However, the demand for LCD TV and applications has been significantly impacted by the economic environment. Given the oversupply situation of the LCD industry, capex plans beyond replacement and maintenance has been postponed and impacted the division revenue in 2010. We expect a moderate improvement in the division's performance in 2010 as a result of the deceleration of the growth in screen size, which stimulated demand for new equipments.

#### Share price performance



Source: FactSet, Barclays Capital

# Historic valuation (EV/EBIT)



Source: Bloomberg, FactSet, Barclays Capital

# Financial benchmarking



Source: FactSet, Barclays Capital

#### Meyer Burger (2-EW, SFR 250)

Meyer Burger navigated the dislocation in the solar market over the course of 2009 through reducing temporary headcount, investing in research and development and making selective acquisitions to add to their technology platform. Over the course of 2010, this approach should deliver favourable results, as long as the solar sector enjoys some recovery and orders are confirmed, the company should see its robust balance sheet and earnings power continue to deliver. We believe the main catalysts for the company will be the strength of demand in the first half, integration of its recent merger and the timing of returning temporary working to increase capacity to respond to higher demand. A portion the order backlog from Asia has been deferred and while the industry looks to be preparing for investment in new lower-cost products, this will require equipment and machines from Meyer Burger. The return of credit and debt markets for medium to large-scale projects will be a key forward indicator of demand for the second half of the year.

#### **Bulls and Bears**

#### **Bulls**

- Technology leadership in the wafer-processing machines with focus on developing cost-reducing solutions
- Widening product offerings, focusing on increasingly automated and integrated solutions
- Robust balance sheet and scope for diamond wire to represent a significant earnings driver for the company near term

#### Bears

- Potential technology risks related to faster-that-expected competitiveness of thin film relative to crystalline technologies
- Greater availability of polysilicon has slowed the trend towards thinner wafers and therefore replacement cycles
- Visibility on pricing and volumes across the value chain remain very limited and is slowing investment decision in new facilities and equipments

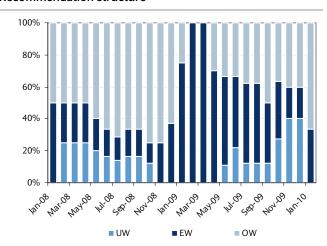
## Earnings estimate and company guidance

FY Dec, SFR	2007	2008	2009e	2010e	2011e
Revenue (mn)	209.1	461.1	400.8	432.8	627.6
EBIT (mn)	25.0	57.5	28.8	41.1	75.2
Margin (%)	11.9%	12.5%	7.2%	9.5%	12.0%
EBITDA (mn)	27.8	84.4	54.7	60.3	91.7
EPS	6.48	12.25	7.14	10.47	18.72
Consensus					
Revenue (mn)			410.4	519.4	662.4
EBIT (mn)			33.8	48.8	86.3
EBITDA (mn)			52.6	71.4	110.8
EPS (€)			8.03	10.15	19.59

Guidance: na

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: FactSet, Barclays Capital

# Divisional/group forecast

FY Dec, SFR mn	2008	2009e	2010e	2011e
Sales Group	461.1	400.8	432.8	627.6
EBIT margin (%) Group	12.5%	7.2%	9.5%	12.0%

Calendar

- 14 Jan 2010: Extraordinary Meeting of Shareholders
- 22 Mar 2010: FY 2009 Results
- 29 Apr 2010: Annual Meeting of Shareholders

Source: Company data, Barclays Capital

#### Sector view: 1- Positive

- The solar sector was affected in 2009 by a sudden shift in supply demand driven by regulatory changes in Spain and financing constraint. Industry fundamentals have significantly improved with financing availability and demand showing some signs of elasticity from lower installation costs post renegotiations across the supply chain.
- Equipment manufacturers benefit from asset-light business models with lower pressure on working capital than the solar PV supply chain. Over 2010, we expect order intake to accelerate as a result of higher demand and pricing visibility. In addition, we expect a wave of equipment replacement in 2010 as a significant share of the existing production capacity at the industry aggregate level has become uneconomic following the 30-50% ASP decline experienced in 2009.

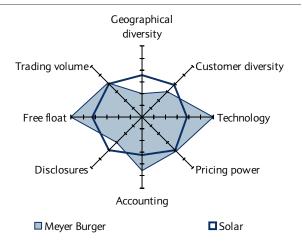
Source: Company data, Barclays Capital

# Price target sensitivity

Long term sales growth							
	1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%
8.0%	229.5	232.8	236.2	239.6	242.9	246.3	249.6
8.5%	231.2	235.1	239.0	242.9	246.9	250.8	254.7
9.0%	232.9	237.4	241.8	246.3	250.8	255.3	259.8
9.5%	234.6	239.6	244.7	250.0	254.8	259.8	264.9
10.0%	236.2	241.9	247.5	253.1	258.7	264.4	270.0
10.5%	237.9	244.1	250.3	256.5	262.7	268.9	275.1
11.0%	239.6	246.4	253.1	259.9	266.6	273.4	280.2
	8.5% 9.0% 9.5% 10.0% 10.5%	8.0% 229.5 8.5% 231.2 9.0% 232.9 9.5% 234.6 10.0% 236.2 10.5% 237.9	1.5%     2.0%       8.0%     229.5     232.8       8.5%     231.2     235.1       9.0%     232.9     237.4       9.5%     234.6     239.6       10.0%     236.2     241.9       10.5%     237.9     244.1	1.5%       2.0%       2.5%         8.0%       229.5       232.8       236.2         8.5%       231.2       235.1       239.0         9.0%       232.9       237.4       241.8         9.5%       234.6       239.6       244.7         10.0%       236.2       241.9       247.5         10.5%       237.9       244.1       250.3	1.5%     2.0%     2.5%     3.0%       8.0%     229.5     232.8     236.2     239.6       8.5%     231.2     235.1     239.0     242.9       9.0%     232.9     237.4     241.8     246.3       9.5%     234.6     239.6     244.7     250.0       10.0%     236.2     241.9     247.5     253.1       10.5%     237.9     244.1     250.3     256.5	1.5%       2.0%       2.5%       3.0%       3.5%         8.0%       229.5       232.8       236.2       239.6       242.9         8.5%       231.2       235.1       239.0       242.9       246.9         9.0%       232.9       237.4       241.8       246.3       250.8         9.5%       234.6       239.6       244.7       250.0       254.8         10.0%       236.2       241.9       247.5       253.1       258.7         10.5%       237.9       244.1       250.3       256.5       262.7	1.5%       2.0%       2.5%       3.0%       3.5%       4.0%         8.0%       229.5       232.8       236.2       239.6       242.9       246.3         8.5%       231.2       235.1       239.0       242.9       246.9       250.8         9.0%       232.9       237.4       241.8       246.3       250.8       255.3         9.5%       234.6       239.6       244.7       250.0       254.8       259.8         10.0%       236.2       241.9       247.5       253.1       258.7       264.4         10.5%       237.9       244.1       250.3       256.5       262.7       268.9

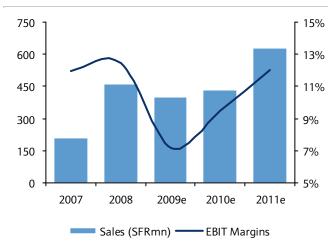
Source: Company data, Barclays Capital

# Competitive position and investability benchmarking



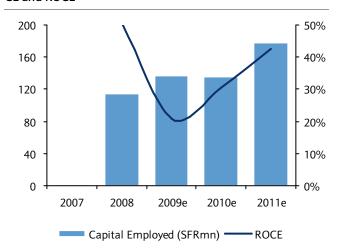
Source: FactSet, Company data, Barclays Capital

# Sales and EBIT



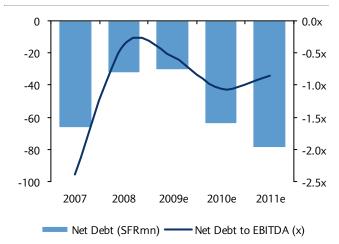
Source: Company data, Barclays Capital

# **CE and ROCE**



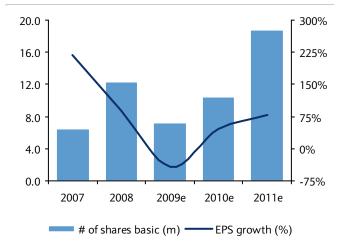
Source: Company data, Barclays Capital

# Net Debt to EBITDA



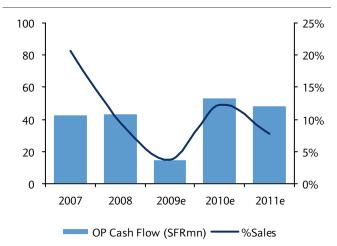
Source: Company data, Barclays Capital

# EPS and EPS growth



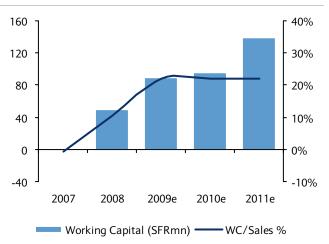
Source: Company data, Barclays Capital

# OP cash flow to sales



Source: Company data, Barclays Capital

# WC and WC/Sales



Source: Company data, Barclays Capital

#### Divisional revenue breakdown (2008)

# Core business 100%

# Corporate history

Meyer Burger has 50 years experience in cutting and sawing machines, initially focused on the watch jewel industry. In the1970s, the company developed and launched silicon wafers cutting machines for the silicon industry. The experience gathered from the semiconductor industry has enabled Meyer Burger to diversify towards the solar industry, with the first dedicated product launched in 1999. Since 2000, the company has focused on enlarging its expertise and product offering for the solar, semiconductor and optic industry. Meyer Burger has been listed on the SWX Swiss Exchange since 2006, and has continuously been developing more automated and integrated solutions. In 2008, the company completed the acquisition of Hennecke Systems (wafer measurement systems) and AMB Apparate + Maschinenbau (wafer automation systems). In 2009, the company acquired Diamond Wire Technology, a diamond wire and saws technology company based in Colorado to strengthen its competitive position in slicing technology.

Source: Company data, Barclays Capital

# Geographical revenue breakdown (2008)



# Management

Management:

CEO: Peter Pauli

CFO: Michel Hirschi

Internet address: www.meyerburger.ch

Source: Company data, Barclays Capital

# Shareholder structure

Mar	Market value (€ 581mn) Float		
Тор	10 holders (% shares outstanding)		
1	Vontobel Asset Management AG	6.2%	
2	PAULI PETER	5.5%	
3	Meyer Burger Technology AG	3.1%	
4	Swisscanto Asset Management AG	3.0%	
5	UBS Global Asset Management Switzerlar	nd 2.3%	
6	Norges Bank Investment Management	1.8%	
7	Credit Suisse	1.1%	
8	Claymore Securities, Inc.	1.1%	
9	UBS Global Asset Management (Japan)	1.0%	
10	Deka Investment GmbH	1.0%	

## Accounting issues

The company assumes intangible assets for customer relationships have useful lives of between three and seven years. The net balance sheet value for other intangible assets is CHF24.2mn with overall intangible assets of CHF82.2mn

# M&A

2009: Diamond Wire Technology LLC (100% stake, €24mn in shares + cash na).

2008: Hennecke Systems (66% stake, €11mn sales in 2007).

2008: AMB Apparate + Maschinenbau (51% stake, €3mn sales in 2007).

Source: Factset, Barclays Capital

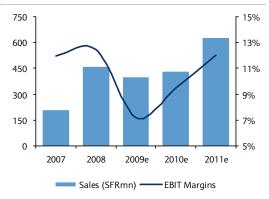
#### Product and activities

Meyer Burger supplies the solar, semiconductor and optic industries with slicing and handling of high-grade material equipments and solutions. Solar is the key market for the company, representing 90% of the group's sales. To complement its current product offering, the company has developed and acquired technologies to supply wafer measuring technologies, handling and automation systems as well as a fully automated brick line. In 2009, the company acquired Diamond Wire Technology, a diamond wire and saws technology company based in Colorado to strengthen its competitive position in slicing technology. Diamond technology has the potential to save costs by c.10% compared to traditional slurry based wire saws. In addition, the acquisition of DWT is likely to deliver potential for the company to enter the consumables business offering some recurring source of income.

Meyer Burger has implemented production process optimisation over the course of 2008 which enabled the company to reduce manufacturing lead times to three weeks and increase throughput to 14-15 machines per week compared to 3-4 machines at the beginning of the year. In addition, Meyer Burger has commissioned a new logistics centre in Thun, Switzerland utilising a combination of pre-assembly and assembly lines to improve production efficiency. In 2009, Meyer Burger implemented cost-reduction measures, including short-time work in its production facility in Thun and scaled-down production to reflect market conditions. The company enjoys a strong competitive position on the wafer equipment manufacturing business with a c40% market share and a well-diversified customer base across Europe, North America and the Asia Pacific region.

Key competitors: HCT, NTC

# **Divisional forecasts**



Source: Company data, Barclays Capital

# Key issues

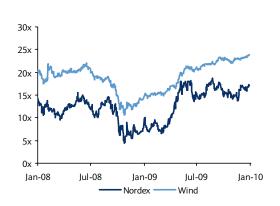
- Despite management comments on a number of large orders from Asian customers under discussion, timing remains uncertain. The broader solar wafer segment remains impacted, with surplus capacity and pricing uncertainty entering 2010, which led to a cautious approach to order new equipments.
- Meyer Burger has incurred significant expenditure on acquisitions and expanding its personnel. We believe the company may experience a decline in margins as it expenses amortisation and integration costs.
- Meyer Burger recognises revenue under the completed project method. As its
  equipment is often part of larger expansion plans, the timing of revenue
  recognition is dependant on its customer's ability to complete projects on time.

#### Share price performance



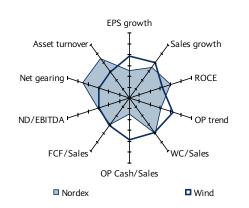
Source: FactSet, Barclays Capital

## Historic valuation (EV/EBIT)



Source: Bloomberg, FactSet, Barclays Capital

# Financial benchmarking



Source: FactSet, Barclays Capital

## Nordex (2-EW, €13 PT)

Nordex continues to reposition itself in the current turbine market though the operating environment has become more challenging and is expected to remain so over the course of the year. New entrants such as Goldwind and Sinovel continue to make progress towards the multi-MW turbine range, competing with Nordex from a technology perspective, while conglomerates have gained market share through the provision of a broad platform of power generation equipment. However, the niche market approach for Europe and then expansion globally in a measured way, should allow the company to move towards maintaining market share over the medium term. We believe the main challenges facing the the company are to establish a leadership position from a technology perspective, demonstrate a stable and supportive shareholder base and achieve industry average levels of profitability at the EBIT level, which was elusive for most of the last decade. The company recorded an average annual EBIT margin of 3.1% over 2005-08.

#### **Bulls and Bears**

#### **Bulls**

- Compact and efficient product range
- Differentiated market approach, with a strong presence in Italy, Germany and France (market share >10%)
- Expansion of global footprint with new capacity to come on stream in China and the US in 2010

#### Bears

- High availability of turbine from Tier 1 suppliers which presents a lower counterparty risk for banks and project developers
- Lower focus on product development than main European turbine peers
- Relative size limit economies of scale against Tier 1 operators

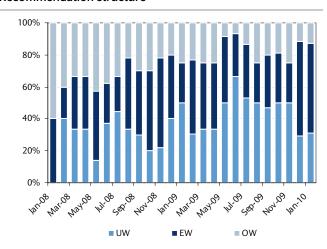
# Earnings estimate and company guidance

FY Dec, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	747.5	1,135.7	1,171.6	1,283.2	1,465.2
EBIT (mn)	40.1	63.0	36.4	48.2	64.1
Margin (%)	5.4%	5.5%	3.1%	3.8%	4.4%
EBITDA (mn)	54.2	78.9	54.2	66.1	82.8
EPS	0.74	0.74	0.35	0.47	0.64
Consensus					
Revenue (mn)			1,213.9	1,363.5	1,646.5
EBIT (mn)			38.4	56.3	88.1
EBITDA (mn)			57.9	80.9	116.5
EPS (€)			0.34	0.52	0.84

**Guidance:** 2009 revenue of €1.2bn, a decrease in margin (5.5% in 2008) and 15% working capital ratio

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: FactSet, Barclays Capital

## Divisional/group forecast

FY Dec, € mn	2008	2009e	2010e	2011e
<b>Sales</b> Group	1,135.7	1,171.6	1,283.2	1,465.2
EBIT margin (%) Group	5.5%	3.1%	3.8%	4.4%

#### Calendar

- March 2010: Preliminary FY 2009 Results
- 19 Apr 2010: FY 2009 Results
- 12 May 2010: Q1 2010 Results
- 08 Jun 2010: Annual General Meeting
- 19 Aug 2010: Q2 2010 Results
- 11 Nov 2010: Q3 2010 Results

Source: Company data, Barclays Capital

#### Sector view: 1- Positive

- Despite an upward trend in financing costs over the last 18 months, the outlook for project IRR remained stable to positive driven by a substantial reduction in transportation and balance of system costs as well as commodity prices decline passed through indexed turbine contracts.
- Lead times significantly reduced over the past twelve months which had a negative impact on prices for unbooked capacities. Due to finance ability and technology limitations, we are not concerned by the emergence of Chinese competition on the medium term. With financing improving and incentive to complete projects in the next two years in major markets, we believe turbine manufacturers and Tier 1 supply chain players will benefit from a positive order momentum over the next 12-18 months.

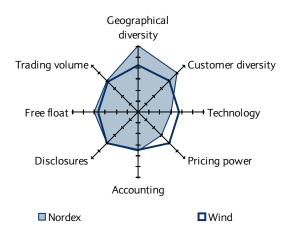
Source: Company data, Barclays Capital

# Price target sensitivity

€		Long term sales growth								
		3.5%	4.0%	4.5%	5.0%	5.5%	6.0%	6.5%		
	6.9%	11.5	11.6	11.7	11.8	12.0	12.1	12.2		
sales ו	7.4%	11.8	11.9	12.1	12.2	12.4	12.6	12.7		
turn or	7.9%	12.0	12.2	12.4	12.6	12.8	13.0	13.2		
Long term return on sales	8.4%	12.3	12.5	12.8	13.0	13.2	13.5	13.7		
Long te	8.9%	12.6	12.8	13.1	13.4	13.7	13.9	14.2		
	9.4%	12.8	13.1	13.5	13.8	14.1	14.4	14.7		
	9.9%	13.1	13.5	13.8	14.2	14.5	14.9	15.2		

Source: Company data, Barclays Capital

# Competitive position and investability benchmarking



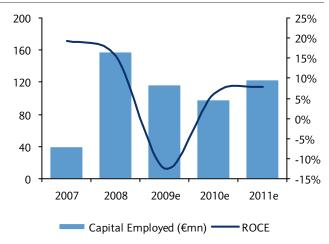
Source: FactSet, Company data, Barclays Capital

## Sales and EBIT



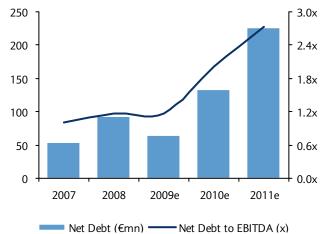
Source: Company data, Barclays Capital

# **CE and ROCE**



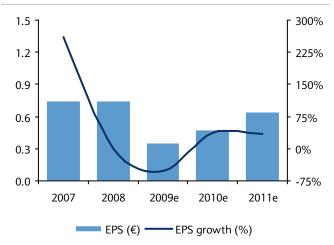
Source: Company data, Barclays Capital

# Net Debt to EBITDA



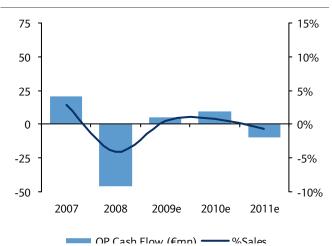
Source: Company data, Barclays Capital

# EPS and EPS growth



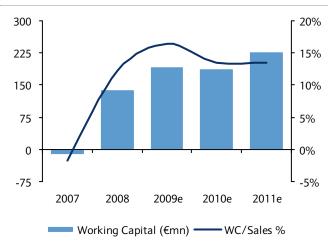
Source: Company data, Barclays Capital

# OP cash flow to sales



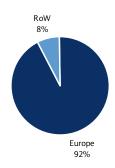
Source: Company data, Barclays Capital

# WC and WC/Sales



Source: Company data, Barclays Capital

## Divisional revenue breakdown (2008)



## Corporate history

Nordex was founded in 1985 in Denmark. The company's main business is the production of efficient and reliable wind turbines. After having installed the largest turbine ever produced in series in 1987, Nordex entered the production of MW class in 1995 and completed the first world series of 2.5MW turbines in 2000. The company went public in 2001 and strengthened its competitive position in Europe (particularly in Germany, Italy and France). Over 2001-03, the company commenced the industrial production of rotor blades and installed its first offshore machine and its 2,000<sup>th</sup> onshore turbine. Between 2005-07, Nordex continued to expand its product offering with the launch of the N90/2.5MW while starting serial production of multi MW turbine in China. Nordex launched the N100/2.5MW in 2007 and finalised plans to expand capacity in the US, which the company anticipates to realise over the course of 2010.

Source: Company data, Barclays Capital

#### Geographical revenue breakdown (2008)



## Management

Thomas Richterich, CEO, completed his business management qualification in 1990. He has been the CEO of Nordex AG since 2005. Prior to this, he served as the CFO of Nordex. He has previously worked with Babcock Borsig AG and Ferrostaal AG.

Bernard Schäferbarthold, CFO. He has been the CFO of Nordex since April 2007 having previously been the head of finance and treasury between 2005-07. Prior to that, he was an auditor and accountant with Warth & Klein during 1996-2005)

Internet address: www.nordex-online.com

Source: Company data, Barclays Capital

# Shareholder structure

Mar	ket value (€ 721mn) Float	65%
Тор	10 holders (% shares outstanding)	
1	KLATTEN SUSANNE	21.9%
2	OZ Management LLC	14.4%
3	CMP Capital Management Partners GmbH	9.6%
4	CJ Holding ApS	3.5%
5	HSH Nordbank AG	2.1%
6	BlackRock Investment Management (UK)	1.3%
7	Jupiter Asset Management Ltd. (UK)	0.7%
8	Norges Bank Investment Management	0.6%
9	INVESCO PowerShares Capital	0.6%
10	BlackRock Advisors UK Ltd.	0.5%

## Accounting issues

Revenues for construction contracts are recognised on a percentage of completion basis. Capitalised development costs are amortised as intangible assets over a useful economic life of five years. At the end of December 2008, the capitalised development costs with a carrying value of  $\[ \in \]$ 22.4mn. The company has other goodwill on the balance sheet for  $\[ \in \]$ 10.0mn and additional intangibles of  $\[ \in \]$ 19.6mn (2007:  $\[ \in \]$ 14.1mn). The company provides for other provisions for guarantees, service and additional issues of  $\[ \in \]$ 69.8mn (2007:  $\[ \in \]$ 36.7mn).

## M&A

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Source: Factset, Barclays Capital

#### Product and activities

Nordex is focused on the development, manufacture, delivery and maintenance of wind power turbines. In addition, the company provides project services and assistance at the micro-siting, engineering as well as substation levels. With its expertise in project planning, Nordex offers turnkey project solutions with the substation, including grid connection. Through continuous innovation, Nordex has developed a turbine offer ranging from 1.5 to 2.5 MW. In particular, Nordex turbines are recognised for their efficiency and performance under medium-low wind conditions. The 1.5MW turbine range (S77 and S70) is dedicated to the Asia-Pacific market and for high to low onshore locations. Nordex is targeting other markets through its 2.3MW to 2.5MW turbine range, which represents around 80% of order book. In addition, Nordex has launched an offshore version of the N90 2.5MW turbine and is at the development stage of an additional product with capacity above 3MW.

Currently, sales are concentrated in Europe (mainly France, Germany, the UK and Italy), but management has already undertaken several projects in the US and China. Nordex plans to generate, in 2011, half of its revenue in these two fast-growing markets. Nordex customers are essentially composed by independent power producers (~50%), utility companies (~25-30%) and project developers (~20-25%). The recent changes in the financial markets has led to a more focused turbine delivery outlook with major companies with smaller project developers less certain on their order and installation outlook. Nordex currently has a limited in-house capability of key components with the exception of blades and nacelles. All of Nordex's blades are now produced in house, with a 50/50 joint venture to produce nacelles. Gearboxes, towers and generators are all procured through third parties, with gearboxes being one of the critical components for the turbine in terms of technology and cost of energy benefits.

Key competitors: Vestas, Gamesa, Siemens, REpower, GE, Suzlon, Clipper, Sinovel, Goldwind, Dongfang, Enercon

## **Divisional forecasts**

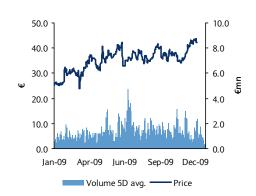


Source: Company data, Barclays Capital

## Key issues

- Expansion: The company is expanding capacity in the US and China which are likely to continue to drive the global wind market growth over the next five years. However, we draw attention to the highly competitive nature of the Chinese market where the share of installations supplied by international turbine manufacturer significantly declined over the past three years, In the US, despite the most supportive regulatory environment ever in pace, the market has been slow to recover. We believe Tier 1 operators, which are also expanding in the US, are likely to be the first beneficiaries of a return to growth.
- Profitability: Over the past three years Nordex profitability has been below that of main European peers. We believe this reflects a lower operating leverage given Nordex relative size. In addition, we believe other turbine manufacturers, through a greater focus on operation and maintenance, individual site and project-specific approach has set a more elaborate pricing process, which resulted in a relative pricing premium.
- Execution risks: Though Nordex has reduced the share of turnkey projects, the company still faces execution and installation risks. The company has experienced blade issues over the course of 2007 and 2008 which, according to our channel checks, have not been fully remediated. The company does not face major liquidity issues at this stage, however in the event of a major serial failure; we believe Nordex balance sheet could be significantly threatened.

## Share price performance

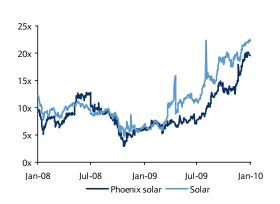


# Phoenix solar (1-OW, €50 PT)

Phoenix' focus this year, we believe, will be to leverage the expected strength in the German market for the first half of the year, before turning to other European markets, such as France in the latter part of 2010. While the company has become more cautious over the course of 2009, the fundamentals around the business continue to improve with greater availability of modules, lower pricing, stable price evolution and increased project returns. The company increased focus on generating after market service revenues, from projects already completed (from a low base). We believe the attention should also be on improving liquidity to protect from any working capital or project fluctuations which the company experienced in the second half of 2009. To mitigate this risk, the company may raise some additional capital over the course of the year. As expected, PV installations continue to strengthen, PS4 looks set to benefit from this development.

Source: FactSet, Barclays Capital

## Historic valuation (EV/EBIT)



## **Bulls and Bears**

#### Bulls

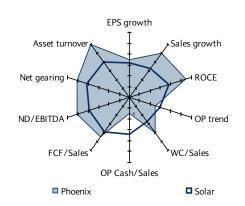
- Flexible and technology neutral business model geared to volume growth in both residential and commercial segments
- Strong local network and regional organisation provides flexibility with regards to resources allocation
- Experienced management team with a deep understanding and knowledge of markets and industry trends

#### Bears

- Short- and medium-term uncertainties related to regulatory environment and pricing
- Low contribution to reducing solar PV cost of energy limits potential operating margin progression
- Degradation of thin film performance and technology risk

Source: Bloomberg, FactSet, Barclays Capital

# Financial benchmarking



# Earnings estimate and company guidance

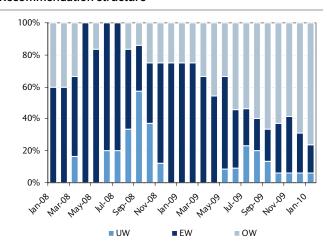
FY Dec €	2007	2008	2009e	2010e	2011e
Revenue (mn)	260.1	402.5	456.2	596.3	736.1
EBIT (mn)	22.3	33.8	14.4	36.7	47.5
Margin (%)	8.6%	8.4%	3.2%	6.1%	6.4%
EBITDA (mn)	22.6	34.2	14.7	37.2	48.4
EPS	2.38	3.54	1.57	3.78	4.99
Consensus					
Revenue (mn)			457.1	627.8	733.3
EBIT (mn)			11.1	33.6	38.9
EBITDA (mn)			12.2	34.2	38.9
EPS (€)			1.03	3.37	3.98

Guidance: 2009 Revenue of €430-480mn and a positive EBIT margin

Source: FactSet, Barclays Capital

Source: FactSet, Company data, Barclays Capital,

#### Recommendation structure



Source: FactSet, Barclays Capital

## Divisional/group forecast

FY Dec, €mn	2008	2009e	2010e	2011e
Sales				
Power plants	130.7	188.0	133.7	204.5
Components	129.3	215.0	322.5	391.8
EBIT margin (%)				
Power plants	13.7%	10.6%	4.5%	6.4%
Components	3.3%	6.5%	2.6%	6.0%

Source: Company data, Barclays Capital

# Price target sensitivity

€	Long term sales growth								
		2.5%	3.0%	3.5%	4.0%	4.5%	5.0%	5.5%	
	7.5%	55.4	52.4	49.3	46.3	43.2	40.1	37.1	
n sales	8.0%	56.2	53.3	50.4	47.5	44.6	41.7	38.8	
furn o	8.5%	57.0	54.2	51.5	48.7	46.0	43.2	40.5	
Long term return on sales	9.0%	57.8	55.2	52.6	50.0	47.4	44.8	42.2	
Long	9.5%	58.5	56.1	53.7	51.2	48.8	46.3	43.9	
	10.0%	59.3	57.0	54.7	52.5	50.2	47.9	45.6	
	10.5%	60.1	58.0	55.8	53.7	51.6	49.4	47.3	

Source: Company data, Barclays Capital

#### Calendar

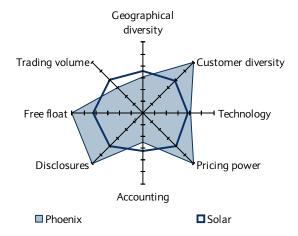
- 22 Apr 2010: FY 2009 Results
- 11 May 2010: Q1 2010 Results
- 16 Jun 2010: Annual General Meeting
- 11 Aug 2010: Q2 2010 Results
- 10 Nov 2010: Q3 2010 Results

Source: Company data, Barclays Capital

#### Sector view: 1- Positive

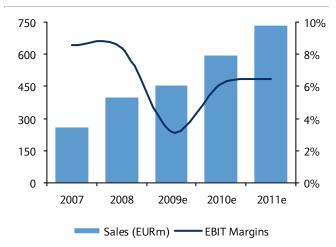
- The solar sector was affected in 2009 by a sudden shift in supply demand driven by regulatory changes in Spain and financing constraint. Industry fundamentals have significantly improved with financing availability and demand showing some signs of elasticity from lower installation costs post renegotiations across the supply chain.
- The downstream segment has been the first to suffer from declining demand which put significant pressure on working capital and liquidity. With improving demand and pricing visibility we expect the downstream players to also be among the first beneficiaries and in particular players with strong relationships in the German market, which we expect to be particularly strong in the first half of 2010.

# Competitive position and investability benchmarking



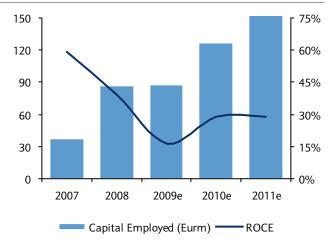
Source: FactSet, Company data, Barclays Capital

## Sales and EBIT



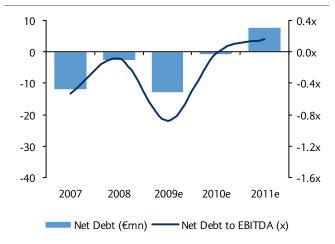
Source: Company data, Barclays Capital

# **CE and ROCE**



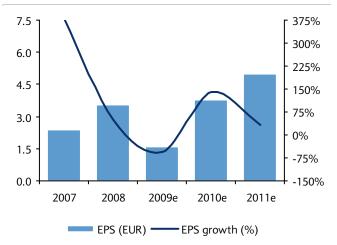
Source: Company data, Barclays Capital

# Net Debt to EBITDA



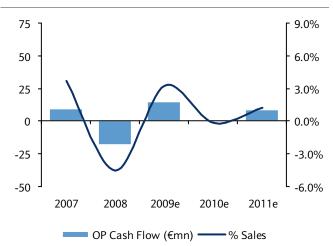
Source: Company data, Barclays Capital

# EPS and EPS growth



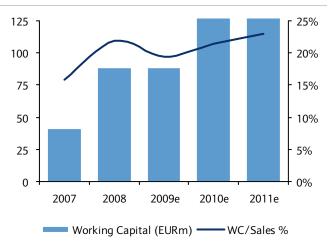
Source: Company data, Barclays Capital

# OP cash flow to sales



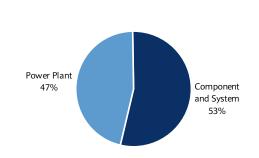
Source: Company data, Barclays Capital

# WC and WC/Sales



Source: Company data, Barclays Capital

#### Divisional revenue breakdown (2008)

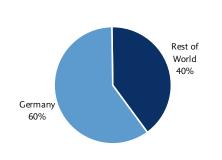


## Corporate history

Phoenix Solar AG was established in late 1999 and developed from the Phoenix Solar Initiative founded in 1994 to offer economical and high-quality solar systems. Initially restricted to solar thermal solutions, the first solar power systems were sold in 1998, on the initiative on Dr. Andreas Hanel. Since 1999, the thermal and photovoltaic businesses have been run through economically and legally independent entities. Phoenix Solar AG, initially concentrating on its domestic market, has established itself as an important player in the wholesale of complete solar power systems and components with local subsidiaries in Spain, Singapore, Italy, Greece, Australia and France. The company has been listed on the Frankfurt Stock Exchange since 2006 and admitted to the German TecDax technology index since March 2008. With sales network which now covers the whole of Germany, and subsidiaries in Southern Europe, Asia and Australia, the group currently has a workforce of more than 230 employees.

Source: Company data, Barclays Capital

#### Geographical revenue breakdown (2008)



#### Management

CEO: Dr. Andreas Hanel has worked in the PV industry since 1987 and is a founding member of Phoenix Solar. In addition, Dr Hanel has been a member of the German Federal Association for Economic Development and Foreign Trade since 2005. He studied mechanical engineering, aviation and space as well as environmental protection technology at the Technical University of Munich.

CFO: Sabine Kauper joined Phoenix Solar in 2000 and was appointed Chief Financial Officer at the start of 2007. Sabine Kauper studied business administration and occupied position in an audit company before joining Phoenix Solar.

Internet address: www.phoenixsolar.com

Source: Company data, Barclays Capital

# Shareholder structure

Mai	ket value (€ 301mn)	Float	93%
Тор	10 holders (% shares outstanding)		
1	Pioneer Investments		5.6%
2	Aviva Investors Global Services Ltd.		5.4%
3	DWS Investment GmbH		5.0%
4	Allianz Global Investors Kapitalanlagegesellschaft		3.7%
5	HAENEL ANDREAS		3.4%
6	Swisscanto Asset Management AG		3.1%
7	Norges Bank Investment Management	t	3.1%
8	BAECHLER MANFRED		2.7%
9	M.M. Warburg Luxinvest SA		2.6%
10	JPMorgan Asset Management (UK) Ltd	d.	2.6%

Source: Factset, Barclays Capital

## Accounting issues

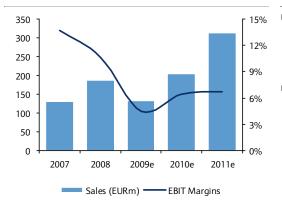
The company over 2008 formerly applied an expectation model assuming revenue-related multiples for power plant construction to be replaced with a reduced multiple used in conjunction with an updated estimate in guarantee terms. The lowering of the multiple resulted in a release on €0.2mn in the financial year. The company records fixed-price contracts using the cost-to-cost method. In testing for goodwill, the company assumes a discount rate of 8.76% against 10.61% used in the prior year. The company carries €1.8mn for non-current provisions primarily relating to warranties and €1.2mn for current provisions, of which €1.0mn related to litigation on arbitration costs. Almost 100% of long-term guarantees provisions from the project business have terms of up to five years, with the maximum horizon of the provisions of 20 years.

## Power plants

The Solar Power Plants activities include planning services, turnkey construction, operation and maintenance of solar plants in the MW range. Target customers for large solar power plants include closed solar funds, institutional investors, insurance companies, pension funds, industry and commerce as well as local communities. Phoenix Solar is pursuing a balanced product portfolio procurement strategy, with focus on optimising quality and the cost/benefit ratio. The company has been focusing on thin film products for the past few years and has established a supply and long-term framework contracts with First Solar, Solyndra, Signet and Schott Solar. For the supply of crystalline modules, which over the course of 2009 became increasingly attractive due to a more pronounced ASP decline, the company has supply agreements in place with Sharp, Yingli Solar, Suntech and Schott Solar. The potential for operation and maintenance is substantial and the company has highlighted it may consider in future extend its offer to third-party constructed system.

Key competitors: Conergy, Solaria Energies, Solon, EDF Energies Nouvelles, Juwi, Centrosolar

#### Divisional forecasts



## Key issues

- Project risks: the project nature of the power plant business carry some execution risk that falls outside of the company's control. In 2009, revenues for the division were impacted by delays in project approval and construction due to payments delays, legal dispute with local residents and delays in obtaining full documentation to release bank payments from a customer.
- **Financing and order backlog:** though improved over the course of 2009, the company may continue in 2010 to be impacted by a not fully recovered funding environment. At the end of 9m 2009, visibility remains low despite strengthened relationships with key customers and order backlog still below 2008 level.

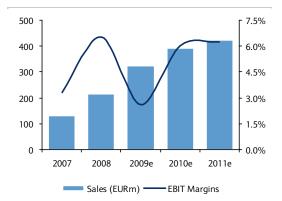
Source: Company data, Barclays Capital

## Components

Phoenix Solar offers system solutions, planning support and services as a specialist wholesaler for grid connected photovoltaic systems and components. In particular, the company is selling inverters, mounting systems and cables. Phoenix Solar's main customers in this division are electrical retailers and wholesalers, heating/sanitary and roofer companies, and solar retailers. The experience gathered from the Power Plant division has enabled Phoenix Solar to optimise its components and system product offer. In return, by increasing volumes, the component and system division has strengthened the whole group's negotiating power. Historically, the components and system segment has been dominated by sales to the German market, although we believe the company could benefit from potential growth we forecast in the French, Belgian and Italian markets. The components segment in addition provides the company with exposure to the German residential market, which represented a major growth driver for the industry in 2009.

Key competitors: Conergy, Solon

#### **Divisional forecasts**



Source: Company data, Barclays Capital

## Key issues

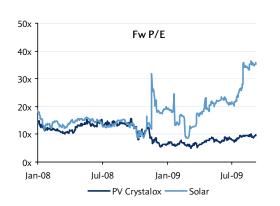
- Margin development: The components and systems division offers very limited margin development upside given its wholesaler and distribution nature. However, this activity provides an opportunity for Phoenix to strengthen its relationship with key suppliers, further develop its local network, also allow the generation of economies of scale.
- Inventory risk: Though we believe the company benefits from relatively favourable and flexible pricing terms and conditions, the company is exposed to inventory risks due to the potentially high volatility of prices for solar products and modules in particular.

#### Share price performance



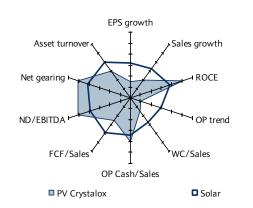
Source: FactSet, Barclays Capital

## Historic valuation (EV/EBIT)



Source: Bloomberg, FactSet, Barclays Capital

# Financial benchmarking



Source: FactSet, Barclays Capital

## PV Crystalox (1-OW, 80p PT)

PVCS looks set to benefit from regulatory changes in key markets, in particular Japan, and increased levels of demand for high-quality wafers over the course of 2010. During 2009, market concern had concentrated on the polysilicon manufacturing facility and its scope to be able to produce quality and quantities that were similar to existing contract supply levels. Over the course of this year, we believe the effective hedge that this investment represents will be viewed more positively by the market, particularly as demand begins to strengthen and price developments become more stable. PVCS exposure to the upstream segment remains a favourable area to operate in and together with the longer-term relationships with customers, which have largely completed renegotiations in 2009. However, the risk continues to remain that new entrant's upstream drive down pricing and increase capacity, causing ongoing (and significant) pressure to existing upstream operators. PVCS's integrated approach, together with scope for cost reduction and efficiency improvements, should position the company favourably if the financing environment remains challenging this year.

#### **Bulls and Bears**

#### **Bulls**

- Focused strategy on the silicon processing technology and wafers
- Proprietary crystallisation technology that allow below average silicon usage
- Supply chain integration to virgin Polysilicon production, and potential upside from better capacity utilisation

#### Bears

- Challenges related to the ramping up of polysilicon capacity to full utilisation
- Pricing pressure from Asian competitors likely to continue in 2010 should uncertainty on end market volume remains
- Customer concentrations: top three clients (Sharp, Schott Solar and Mitsubishi) represent 65% of total sales

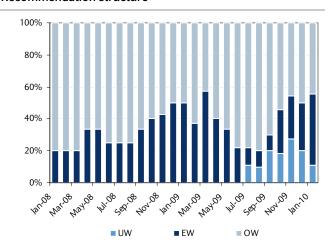
# Earnings estimate and company guidance

FY Dec, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	263.4	274.1	221.0	239.9	245.4
EBIT (mn)	67.5	142.8	47.9	43.1	51.7
Margin (%)	25.6%	52.1%	21.7%	18.0%	21.1%
EBITDA (mn)	72.2	146.7	56.5	53.4	63.8
EPS	0.11	0.25	0.08	0.07	0.09
Consensus					
Revenue (mn)			206.6	200.7	218.1
EBIT (mn)			41.3	24.2	32.1
EBITDA (mn)			49.0	33.6	42.0
EPS (€)			0.07	0.04	0.06

Guidance: 2009 shipment of 230-235MW

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: FactSet, Barclays Capital

## Divisional/group forecast

FY Dec, € mn	2008	2009e	2010e	2011e
<b>Sales</b> Group	274.1	221.0	239.9	245.4
EBIT margin (%) Group	52.1%	21.7%	18.0%	21.1%

Calendar

■ Results date not yet available

Source: Company data, Barclays Capital

## Sector view: 1- Positive

- The solar sector was affected in 2009 by a sudden shift in supply demand driven by regulatory changes in Spain and financing constraint. Industry fundamentals have significantly improved with financing availability and demand showing some signs of elasticity from lower installation costs post renegotiations across the supply chain.
- The upstream segment of the solar PV supply chain enjoys higher barriers to entry than the rest of the PV supply chain as a result of the significant technology and processing expertise necessary to run profitable operations together with the high capital intensity of investments. Despite the trend toward shorter-term contracts, lower prepayment and declining pricing we expect earnings to remain relatively stable for Tier 1 operators as they realise economies of scale and further technology cost reduction.

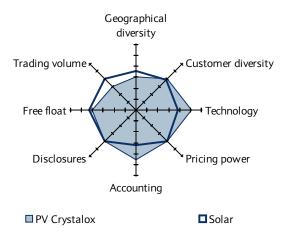
Source: Company data, Barclays Capital

# Price target sensitivity

GBP		Long term sales growth								
		2.5%	3.0%	3.5%	4.0%	4.5%	5.0%	5.5%		
	27.5%	1.45	1.22	1.00	0.77	0.54	0.31	0.08		
Long term return on sales	28.0%	1.46	1.23	1.00	0.78	0.55	0.32	0.10		
turn or	28.5%	1.47	1.24	1.01	0.79	0.56	0.34	0.11		
erm re	29.0%	1.47	1.25	1.02	0.80	0.57	0.35	0.12		
Long te	29.5%	1.48	1.25	1.03	0.81	0.59	0.36	0.14		
	30.0%	1.48	1.26	1.04	0.82	0.60	0.37	0.15		
	30.5%	1.49	1.27	1.05	0.83	0.61	0.39	0.17		

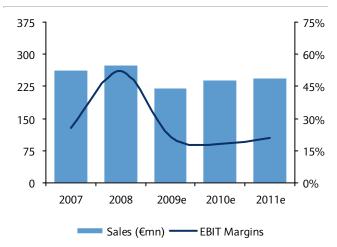
Source: Company data, Barclays Capital

# Competitive position and investability benchmarking



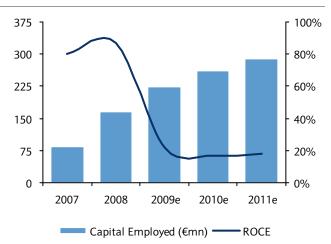
Source: FactSet, Company data, Barclays Capital

## Sales and EBIT



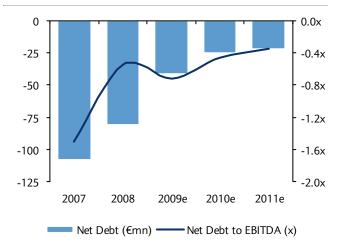
Source: Company data, Barclays Capital

# **CE and ROCE**



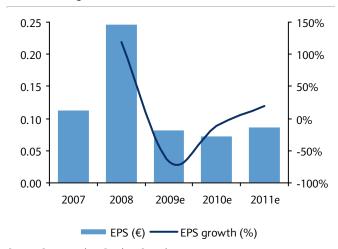
Source: Company data, Barclays Capital

# Net Debt to EBITDA



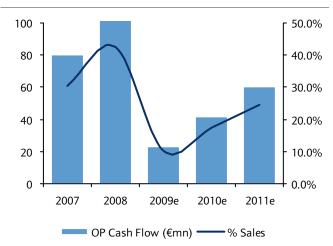
Source: Company data, Barclays Capital

# EPS and EPS growth



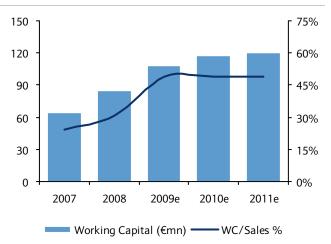
Source: Company data, Barclays Capital

# OP cash flow to sales



Source: Company data, Barclays Capital

# WC and WC/Sales



Source: Company data, Barclays Capital

## Divisional revenue breakdown (2008)

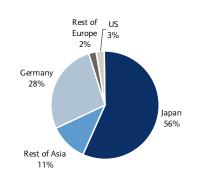
# Silicon products 100%

## Corporate history

Crystalox was founded in 1982 (Oxfordshire, UK) as an ingot furnace manufacturer. The company was taken over by Elkem ASA in 1985 and developed multicrystalline technology solutions. After a management buy-out in 1994, Crystalox moved into industrial-scale production of equipment and has become one of the technology pioneers in multicrystalline technology. The company changed strategy in 1998 to enter into the production of multicrystaline ingots, starting to compete with its previous customers. In 2002, Crystalox merged, as a result of its strengthened strategic relationship with PV Silicon, a German supplier of multicrystalline wafers. Pursuing the strategy to further integrate the supply chain, PV Crystalox completed in 2009 the construction a 1,800MT polysilicon facility and realise vertical integration synergies.

Source: Company data, Barclays Capital

## Geographical revenue breakdown (2008)



## Management

CEO: Dr. Iain Dorrity. Dr. Dorrity gained a PhD in Physical Chemistry from Exeter University, later joining Crystalox in 1986 and became responsible for sales and marketing in 1988. He was a member of the MBO team that acquired the Crystalox business in 1994. He became a member of the management board of PV Crystalox Solar AG in 2002 and a director of the company on its formation in December 2006. Dr. Dorrity has over 25 years experience in crystal growth and semiconductor materials with an emphasis latterly on multicrystalline silicon technology.

CFO: Dr. Peter J. Finnegan. Dr. Finnegan gained a Doctorate in Corporate Finance from Henley Management College, an MBA from Manchester Business School and is a Fellow of the Chartered Institute of Management Accountants. Dr. Finnegan was appointed to the board of both Crystalox Solar Limited and Crystalox Limited in 1994. He became a director of the company on its formation in December 2006. Prior to joining the group he worked for a number of large international manufacturing companies in various positions including Chief Accountant, Company Secretary and Financial Director.

Internet address: www.pvcrystalox.com

Source: Company data, Barclays Capital

# Shareholder structure

Mar	ket value (€ 287mn)	60%							
Тор	Top 10 holders (% shares outstanding)								
1	DORRITY IAIN ANTHONY	10.6%							
2	GARRARD BARRY JOHN	10.1%							
3	OLDHAM STUART	6.4%							
4	Schroder Investment Management	5.4%							
5	AEGON Asset Management (UK) Plc	4.2%							
6	YOUNG GRAHAM	3.6%							
7	JPMorgan Asset Management (UK)	3.5%							
8	ANDREAE RENZ S	3.5%							
9	Legal & General Investment	3.1%							
10	AULICH HUBERT A	2.7%							

## Accounting issues

At the end of 2008, the company provided €0.4mn for warranty provisions. During the year, €20,000 was utilised.

## M&A

2002: Crystalox and PV Silicon merger

1994: Management buy-out.

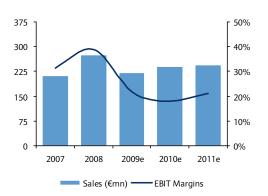
Source: Factset, Barclays Capital

#### Silicon products

PV Crystalox produces multicrystalline ingots and wafers. The ingot production capacity has historically provided a certain degree of flexibility to the company that could either be directly sold or allocates to wafer production. However, in order to optimise the company's full production potential and given the current wafer shortage, PV Crystalox now allocates its entire ingot products to supply wafers. The company is focusing on multicrystalline technologies and has established close relationships with the top 10 solar cell manufacturers, which represent around 75% of the group's total sales. PV Crystalox has a competitive advantage against its peers given its well-established relationship with Japanese cell and module manufacturers, which have traditionally been very selective in working with non-domestic suppliers. PV Crystalox has a total production capacity of 350MWp, which could be further ramped up as demand and pricing visibility improves. The company has long-term supply contracts in place with major polysilicon suppliers and has been successful in securing additional scrap material from its relationships in Japan. In order to support its growth strategy, in 2009 PV Crystalox completed the construction of a 1,800MT polysilicon facility in Germany and which it anticipates to reach full production capacity utilisation in 2011. The company expects to realise substantial cost benefits from its polysilicon facility with anticipated production costs in the range of € c27/kg against existing long-term contracts at around € c35/kg.

Key competitors: REC, Ersol, Solarworld, LDK Solar, Renesola, MEMC

## Divisional forecasts



## Key issues

- The company has incurred significant capital expenditure to bring on stream polysilicon production at its Bitterfield facility. Any cost overruns in ramping up production to planned quality and capacity levels could materialise alter the competitiveness of the plants should polysilicon process continue on their downward trend initiated in 2009.
- PV Crystalox has a fairly concentrated customer base with its top-three clients (Sharp, Schott Solar and Mitsubishi) representing around 2/3 of the company's total revenues.

Source: Company data, Barclays Capital

#### Share price performance



Source: FactSet, Barclays Capital

## Historic valuation (EV/EBIT)

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Source: Bloomberg, FactSet, Barclays Capital

## Financial benchmarking



Source: FactSet, Barclays Capital

## Q-cells (2-EW, € 10.5 PT)

Q-cells continues to struggle to redefine itself and this is likely to linger over 2010. A former favourite in the renewable sector, Q-cells enjoyed favourable positioning for its product as PV demand expanded. Since lower-than-expected demand and increased competition from new entrants led to a collapse in pricing for cells in 2009, the company has struggled to articulate how the business will effectively compete in the operating environment. We believe the scaling up of the QCS -Q-cells Systems segment - is likely to be too small and too capital intensive without third-party investment, and that the current transfer price and revenue recognition between the segments lacks transparency to be comfortable for the capital markets. Despite these issues, management has begun to listen to, and act upon, some of the concerns outlined and careful communication and interaction with stakeholders will be key to ensure that Q-cells secures its position in the solar market as a global, diversified and reliable partner. The company's new facility in Malaysia is likely to allow it compete with Asian manufacturers on costs and together with higher efficiency cells, puts the company in a relatively favourable competitive position.

#### **Bulls and Bears**

#### Bulls

- Restructuring of operations with accelerated transition towards Malaysia where the company anticipates production costs to be reduced by 30%
- Technology expertise and diversified portfolio of investments in promising technologies (Sovello, Solaria, Solibro, Sunfilm, Calyxo)
- Development of Q-Cells Systems, which provides an attractive challenge to market for the company's products

#### Bears

- Risks of inventory building/writedowns and unused production capacity given the lack of visibility from downstream customers in 2010
- Pricing outlook remains challenging for the company in 2010 with Asian competition continuing to ramp up production
- Q-Cells Systems capital intensity, working capital implications and accounting treatment for intra-group contracts

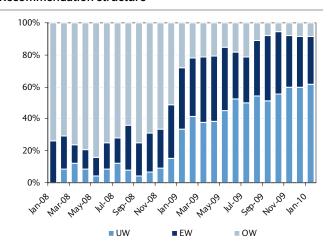
## Earnings estimate and company guidance

FY Dec, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	858.9	1,251.3	862.2	1,114.2	1,335.5
EBIT (mn)	197.0	205.1	-96.4	21.2	59.4
Margin (%)	22.9%	16.4%	-11.2%	1.9%	4.4%
EBITDA (mn)	222.0	249.6	-25.9	93.0	130.8
EPS	1.84	2.32	-7.82	0.16	0.48
Consensus					
Revenue (mn)			940.3	1,194.5	1,410.6
EBIT (mn)			-168.7	59.7	110.8
EBITDA (mn)			-47.6	146.3	201.8
EPS (€)			-10.57	0.21	0.73

Guidance:na

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: FactSet, Barclays Capital

## Divisional/group forecast

FY Dec, € mn	2008	2009e	2010e	2011e
Sales				
Core Business	1243.4	715.2	908.7	1085.7
New Tech	7.9	69.4	93.6	119.4
QCS	91.9	192.0	253.4	304.1
EBIT margin (%)				
Core Business	17.7%	1.5%	2.1%	5.1%
New Tech	na	-2.8%	-4.1%	0.8%
QCS	4.9%	3.3%	3.5%	4.1%

Source: Company data, Barclays Capital

# Price target sensitivity

€	Long term sales growth								
		1.0%	1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	
	9.5%	13.5	12.3	11.1	9.9	8.7	7.6	6.4	
Long term returnon sales	10.0%	13.6	12.4	11.3	10.1	9.0	7.8	6.7	
turnor	10.5%	13.7	12.6	11.4	10.3	9.2	8.1	7.0	
erm rei	11.0%	13.8	12.7	11.6	10.5	9.4	8.4	7.3	
ong te	11.5%	13.8	12.8	11.8	10.7	9.7	8.6	7.6	
	12.0%	13.9	12.9	11.9	10.9	9.9	8.9	7.9	
	12.5%	14.0	13.0	12.1	11.1	10.1	9.2	8.2	

Source: Company data, Barclays Capital

## Calendar

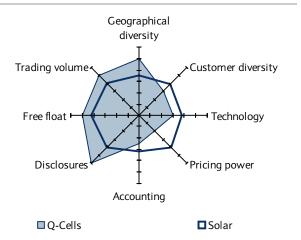
- 23 Feb 2010: FY 2009 Results
- 11 May 2010: Q1 2010 Results
- 24 Jun 2010: Annual General Meeting
- 12 Aug 2010: Q2 2010 Results
- 12 Nov 2010: Q3 2010 Results

Source: Company data, Barclays Capital

## Sector view: 1- Positive

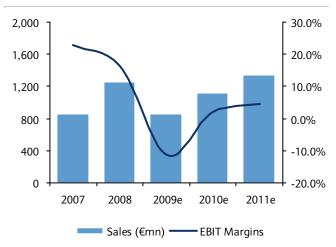
- The solar sector was affected in 2009 by a sudden shift in supply demand driven by regulatory changes in Spain and financing constraint. Industry fundamentals have significantly improved with financing availability and demand showing some signs of elasticity from lower installation costs post renegotiations across the supply chain.
- The downstream segment has been the first to suffer from declining demand which put significant pressure on working capital and liquidity. With improving demand and pricing visibility we expect the downstream players to also be amongst the first beneficiaries and in particular players with strong relationships in the German market, which we expect to be particularly strong in the first half of 2010.

# Competitive position and investability benchmarking



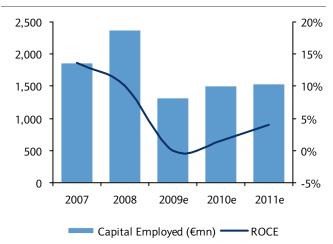
Source: FactSet, Company data, Barclays Capital

## Sales and EBITDA



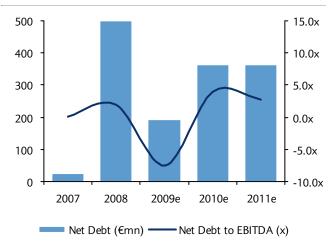
Source: Company data, Barclays Capital

# **CE and ROCE**



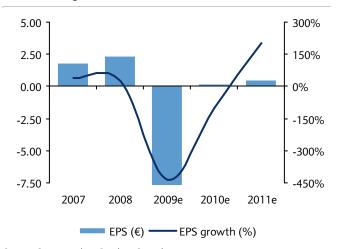
Source: Company data, Barclays Capital

# Net Debt to EBITDA



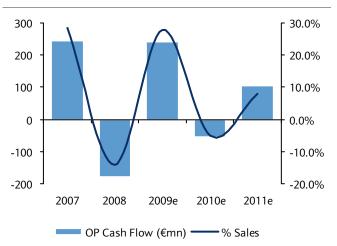
Source: Company data, Barclays Capital

## EPS and EPS growth



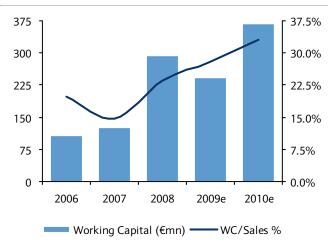
Source: Company data, Barclays Capital

# OP cash flow to sales



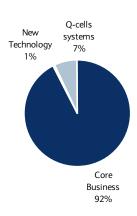
Source: Company data, Barclays Capital

# WC and WC/Sales



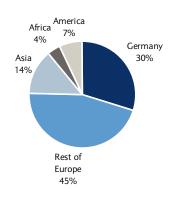
Source: Company data, Barclays Capital

#### Divisional revenue breakdown (2008)



Source: Company data, Barclays Capital

# Geographical revenue breakdown (2008)



Source: Company data, Barclays Capital

# Shareholder structure

Mai		Float	74%
	(= 1.02.1.)		7 170
Тор	10 holders (% shares outstanding)		
1	Good Energies AG		25.8%
2	Taube Hodson Stonex Partners LLP		4.8%
3	Baillie Gifford & Co		4.7%
4	DWS Investment GmbH		1.3%
5	Schroder Investment Management Ltd		1.2%
6	FIL Investments International Ltd.		0.8%
7	BlackRock Investment Management (U	JK)	0.7%
8	BZ WBK AIB Asset Management SA		0.6%
9	BlackRock Advisors UK Ltd.		0.6%
10	Norges Bank Investment Management		0.6%

Source: Factset, Barclays Capital

#### Corporate history

Q-Cells was founded at the end of 1999 and began production of silicon solar cells in mid 2001 with 19 employees. The company strategy has been based on expanding production in line with market demand, developing in-house expertise and exploring the potential of new technologies. In 2005, Q-cells became a publicly listed company and commissioned its fourth production line in 2005. By the end of 2008, the company had a capacity of around 760MW and became the world's largest crystalline solar cell manufacturer. The company has over the years developed a diversified portfolio of technology exposure which includes String Ribbon (33% JV Sovello), Micromorph (Sunfilm 50%), Cadmium telluride (Calyxo 93%), CIGS (Solibro 100%), low concentration cells (Solaria 32%) and Flexible (VHF Technologies 55.6%). In 2009, the company accelerated its transition towards relocating its production facilities in Malaysia as well as the development of its downstream operations Q-Cells Systems.

#### Management

Anton Milner, co-founder and CEO, engineering graduate in Chem. Engineering and an MBA. He has been on the board of Q-Cells AG since 2000. Prior to this, he worked at Royal Dutch/Shell, where he was involved in oil trading, risk management, gas trading and business analyses, and McKinsey & Co as a senior engagement manager.

Dr. Nedim Cen, Interim CFO has 15 years of experience in management consulting and investment banking, with positions at Credit Suisse and McKinsey. Prior to Joining Q-Cells, he held position Kion Group CFO and Managing director of Alvarez & Marsal specialised in financial consultancy and interim management.

Website: www.Q-Cells.com

## M&A

2009: Sell entire 17.2% stake in REC (€ 525mn – NOK55 per share – 13.8x EV/EBIT)

2009: Increases stake in Solibro (€ 81mn) from 67.5% to 100%

2005: Establish JV with REC and Evergreen EverQ (renamed Sovello)

## Accounting issues

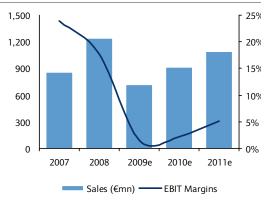
During 2008, QCE capitalised €7.9mn to leave total intangible assets at €48.4mn. Non capitalised R&D represented €25.2mn. Sovello, in which QCE has a 33% interest, failed to comply with a covenant relating to a consortium loan of €192.5mn – this may impact the carrying value of €33.5mn and the value of carrying loans of €45.7mn. QCE offers 10-year warranties and provides €7.0mn in non current provisions for this liability. Warranties provide for cells to achieve at least 90% of nominal performance for 10 years and for 80% of minimum performance for solar models for a period of 20 years from the date shipped. Commitments to suppliers for wafers and silicon for 2009 to 2018 represent €6.7bn at the end of 2008.

#### Core business

Q-Cells develops, produces and markets high-performance solar cells from mono and multicrystalline wafers with cell efficiencies above 17%. Q-Cells has built a worldwide customer base in countries such as Germany, Austria, Canada, Cyprus, Japan, Korea, India, Netherlands, Spain and Turkey. The company established itself as the world leader in the production of solar cells in 2007 and derives over 90% of its revenue from multicrystalline products. From a technology standpoint, Q-Cells focuses on the development and introduction of cost-reducing innovations (thinner wafers, cell structure, cell efficiency, production process optimisation). The company adopted a differentiated sourcing strategy based on a mix between traditional and UMGSi material. Q-cells significantly reduced its wafer and silicon sourcing commitments in 2009, with a much lower focus on UMGSi given the increased availability of traditional quality wafers and the inclination of suppliers to renegotiate long-term contracts to preserve commercial interests. Significantly challenged by Asian competition and pricing weaknesses, the company announced a transition towards relocating its production facilities to Malaysia and a significant restructuring plan of its German operation, which includes the closure of lines I-IV in Talheim, a 25% reduction in production costs, a €100mn reduction in capex and a greater focus on reducing working capital.

Key competitors: E-ton, Motech, JA Solar, Gintech, Neo Solar, Sanyo, Sharp, Ersol, Solarworld, Yingli, Trina, Sunpower, Suntech

#### **Forecasts**



#### Key issues

- Renegotiations: Though the company has been able to more than halve its silicon and wafer commitments for 2010 deliveries by conducting pricing and volume renegotiations, the company is in ongoing litigation on the cancellation of a supply agreement with LDK. The company has initiated procedures to draw under its prepayment guarantee (US\$245mn) following a German court's decision; however LDK appealed this decision in China.
- Pricing: though positive signs of recovery became more apparent, visibility on pricing and volume for 2010 remain low. A variety of parameters such as an early EEG revision, the strength of international markets and weather conditions could have a detrimental impact on the company. ASP reduction in excess of provisioned EEG reduction could have a material impact on the company's earnings and until the Malaysian operations are fully ramped up.

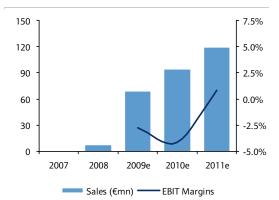
Source: Company data, Barclays Capital

## **New Technologies**

Q-Cells has built a selective and wide portfolio in attractive technologies that we believe should make material contributions to revenues in 2009. In particular, Q-Cells has exposure to Micromorph (Sunfilm 50%), Cadmium telluride (Calyxo 93%), CIGS (Solibro 100%), low concentration cells (Solaria 32%) and Flexible (VHF Technologies 55.6%) thin film technologies. In addition, the company holds a 33.3% stake in Sovello (joint venture with REC and Evergreen), which produces wafer, cells and modules under an integrated process using string ribbon technology to reduce silicon use and costs. In 2009, Q-Cells increased its stake from 67.5% to 100% in Solibro and anticipates production capacity to reach 135MWp in 2010. The average efficiency of the thin-film modules produces is currently just under 11 %, while the best module produced in ongoing operations has an efficiency of 12.3 %.

Key competitors: First Solar, Ovonik, Signet, Kaneka, Misubishi, Sharp, Trony, Ersol, Shott Solar.

# Divisional forecasts



Source: Barclays Capital, Company data

## Key issues

- Technology: The future economic and product performance of the technology developed by Q-Cells in the thin film area, compared with traditional crystalline technologies, remains to be proven. The sharp pricing reduction and improved availability of traditional products significantly reduced commercial opportunities for thin film product in 2009. As a result, the company incurred a € 76mn impairment charge related to its investment in Solvello and €9.4mn for its investment in Solaria.
- Industrialisation: The ability of thin film module manufacturers to stabilize the production process and scale production to industrial sector has been a key differentiating factor. We draw attention to the significant challenges lying in turning very promising innovations under laboratory conditions to industrialised solutions.

## **Q-Cells Systems**

Q-Cells systems was established in 2007 to develop large ground mounted and roof-top projects and provide an attractive access to market for the company's cell production. In 2008 Q-Cells Systems developed its business in the German, Spanish, Italian and US markets and commissioned 26 MWp of projects. In 2009, the two largest projects in Germany were developed through joint ventures. A project in Finsterwalde (Germany) with an output of around 40 MWp in joint venture with LDK Solar and a further project with an output of around 50 MWp in Straßkirchen (Germany) with MEMC. The joint venture partners provide the solar wafers needed for the projects, which Q-Cells uses to make solar cells at its production facilities. The project planning and construction of the farms are handled by Q-Cells Systems on behalf of the joint ventures. Following completion, both joint ventures will be selling the solar farms to investors. QCS is central to Q-Cells' long-term strategy with share of group revenues from project development expected to increase to c60% in 2011 from c5% in 2007.

Key competitors: Solon, Phoenix Solar, Conergy, Juwi, Centrosolar, EDF Energies Nouvelles, Solaria Energia

#### Divisional forecasts

#### 10.0% 750 600 8.0% 450 6.0% 300 4.0% 150 2.0% 0 0.0% 2007 2009e 2010e 2011e EBIT Margins Sales (€mn) -

Source: Barclays Capital, Company data

## Key issues

- Capital intensity: The project nature of the business is highly capital intensive and has significant working capital implications for the company. The successful sell of 2009 JV projects is essential for the company to reinvested proceeds in 2010 projects.
- Revenue and profit recognition: questions around the revenue recognition and profitability remain as projects are developed and completed, making significant quarterly variations more likely.

#### Share price performance



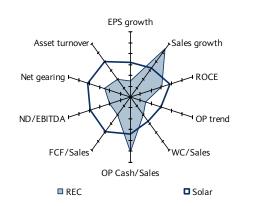
Source: FactSet, Barclays Capital

## Historic valuation (EV/EBIT)

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Source: Bloomberg, FactSet Barclays Capital,

## Financial benchmarking



Source: FactSet, Barclays Capital

## **REC (1-OW, NOK 70 PT)**

REC found itself struggling for much of 2008 and 2009 as its previous track record of growth and innovation stalled with the advent of its FBR facility and vertically integrated Singapore facility. As management changed in 2009, the weak news flow continued and the key question for 2010 is if the company can overcome the challenges it faces. These include bringing its new poly capacity online; if it is able to do so at a cost-ffective rate and whether customers are able to secure competitive wafers from REC; if the new integrated production facilities in Singapore are able to produce modules to match the market at 2010 and expected 2011-13 cost levels. These difficult questions remain to be answered but over the course of the last 12 months, REC has significantly strengthened its balance sheet following a weakening in its financial performance through an equity raise, additional debt finance and a convertible bond offering. Taken together, this represents \$1.2bn of additional capital, some of which may be used to offset tangible or intangible asset write downs that may be required over the coming 12 months for uneconomic capacity. Over the course of 2010, as REC progresses, we believe the focus may be directed towards additional capital to reduce the level of outstanding debt. This will provide it with additional financial flexibility and allow it to respond to market opportunities as they arise.

#### **Bulls and Bears**

#### Bulls

- Vertical integration and technology path to reduce polysilicon to module price below €1/Wp by the end of 2010
- Ability to invest in the current environment and expand capacity in Singapore to strengthen the cost structure's competitive advantage
- Rights issue, renegotiation of financial covenants and convertible bond issue provides financial stability and flexibility

#### Bears

- FBR ramp-up timing remains a key earnings driver and presents some execution and technology risks
- Pricing environment remains challenging for REC Solar before Singapore materially contributes to overall module and cell production mix
- Polysilicon and wafers long term contracts renegotiation risk

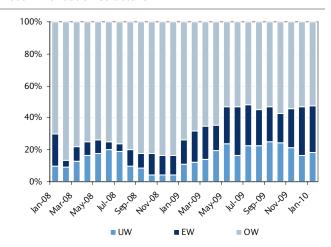
# Earnings estimate and company guidance

FY Dec, NOK	2007	2008	2009e	2010e	2011e
Revenue (mn)	6,642.0	8,190.8	9,093.6	12,767.5	17,587.8
EBIT (mn)	2,587.7	2,528.8	16.2	2,237.9	3,879.3
Margin (%)	39.0%	30.9%	0.2%	17.5%	22.1%
EBITDA (mn)	3,172.3	3,278.9	2,006.9	3,966.0	5,719.1
EPS	2.35	5.47	-0.01	1.92	3.49
Consensus					
Revenue (mn)			9,089.6	13,071.7	17,022.1
EBIT (mn)			186.5	2,260.7	3,814.1
EBITDA (mn)			2,030.6	4,219.1	6,120.9
EPS (€)			-1.24	1.65	3.17

Guidance: na

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: FactSet, Barclays Capital

# Divisional/group forecast

FY Dec, NOK mn	2008	2009e	2010e	2011e
Sales				
Silicon	3,032.8	3,547.4	5,153.2	6,224.0
Wafer	4,893.5	6,069.9	6,761.3	11,561.9
Solar	2,347.3	1,765.9	4,826.5	6,231.5
Other	673.0	358.2	541.9	673.2
EBIT margin (%)				
Silicon	50.8%	47.8%	46.0%	50.0%
Wafer	34.2%	16.4%	17.1%	17.0%
Solar	6.3%	-37.7%	9.2%	10.4%
Other	-1.9%	-5.6%	-1.7%	-1.0%

Source: Company data, Barclays Capital

# Price target sensitivity

NOK		Long term sales growth								
		1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%		
	28.1%	63.2	65.1	66.9	68.8	70.7	72.6	74.5		
Long term return on sales	28.6%	63.4	65.3	67.3	69.2	71.2	73.1	75.1		
turn or	29.1%	63.6	65.6	67.6	69.6	71.6	73.6	75.7		
em rei	29.6%	63.8	65.9	67.9	70.0	72.1	74.2	76.3		
Long te	30.1%	64.0	66.1	68.3	70.4	72.6	74.7	76.9		
	30.6%	64.2	66.4	68.6	70.8	73.0	75.3	77.5		
	31.1%	64.4	66.7	68.9	71.2	73.5	75.8	78.1		

Source: Company data, Barclays Capital

## Calendar

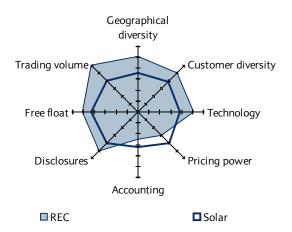
- 10 Feb 2010: FY 2009 Results
- 28 Apr 2010: Q1 2010 Results
- 19 May 2010: Annual General Meeting
- 20 Jul 2010: Q2 2010 Results
- 27 Oct 2010: Q3 2010 Results

Source: Company data, Barclays Capital

#### Sector view: 1- Positive

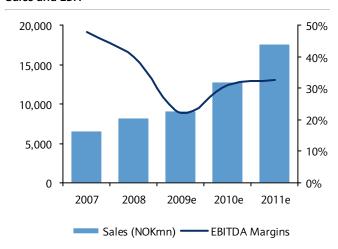
- The solar sector was affected in 2009 by a sudden shift in supply demand driven by regulatory changes in Spain and financing constraint. Industry fundamentals have significantly improved with financing availability and demand showing some signs of elasticity from lower installation costs post renegotiations across the supply chain.
- The upstream segment of the solar PV supply chain enjoys higher barriers to entry the rest of the PV supply chain as a result of the significant technology and processing expertise necessary to run profitable operations coupled with the high capital intensity of investments. Despite the trend toward shorter-term contracts, lower prepayment and declining pricing we expect earnings to remain relatively stable for Tier 1 operators as they realise economies of scale and further technology cost reductions.

# Competitive position and investability benchmarking



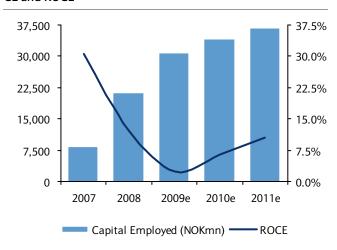
Source: FactSet, Company data, Barclays Capital

#### Sales and EBIT



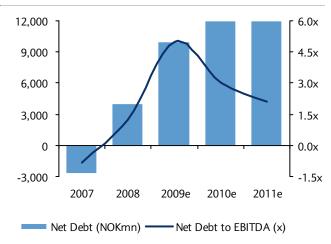
Source: Company data, Barclays Capital

# **CE and ROCE**



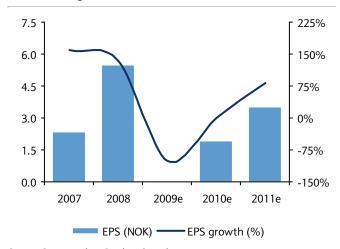
Source: Company data, Barclays Capital

# Net Debt to EBITDA



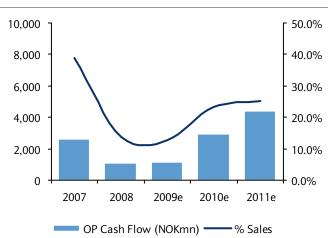
Source: Company data, Barclays Capital

# EPS and EPS growth



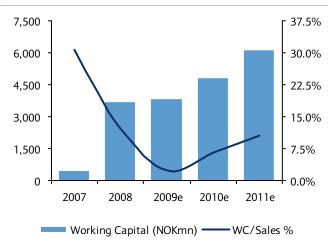
Source: Company data, Barclays Capital

# OP cash flow to sales



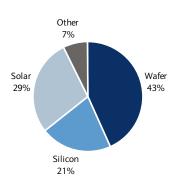
Source: Company data, Barclays Capital

# WC and WC/Sales



Source: Company data, Barclays Capital

## Divisional revenue breakdown (2008)

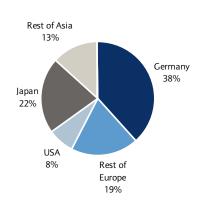


## Corporate history

REC was incorporated as a Norwegian private limited company in 1996 and was originally named Fornybar Energi AS. It focused on investments in renewable energies in Norway and internationally. In September 2000, the common shareholders of ScanWafer AS, SolEnergy AS and Fornybar Energi AS formed a new holding company, REC, with the intention of becoming the majority shareholder in ScanWafer AS and investing in other activities in the PV industry value chain. In 2002, the company entered into a joint venture with Advanced Silicon Materials (ASIMI) to form Solar Grade Silicon, and in 2005 it acquired both ASIMI and the remaining shares of Solar Grade Silicon. REC has been listed on the Oslo Stock Exchange since 2006.

Source: Company data, Barclays Capital

## Geographical revenue breakdown (2008)



## Management

President and CEO: Ole Enger holds a degree from the Norwegian University of Life Sciences and a business degree from the Norwegian School of Economics. Mr. Enger was previously President & CEO of SAPA AB. He has held the position of President & CEO of Elkem AS and Executive Vice President of Elkem AS.

Bjorn Brenna, EVP, finance and administration; holds an MBA in Economics from Norwegian School of Management. He joined REC in 2006 and previously was the head of finance at Telenor ASA between 1998-2006. He was also the CFO of Orkla Foods AS from 1989-94.

Website: www.recgroup.com

#### M&A

2008: 20% stake in mainstream Energy for US\$40m (1.3x 2008e EV/sales)

2006: JV with Q-Cells and Evergreen EverQ (later re-named Sovello)

2005: Acquired Solar Grade Silicon, Advanced Silicon Materials, and SiTech

Source: Company data, Barclays Capital

# Shareholder structure

Mar	ket value (€ 3.6bn)	Float	88%
Тор	10 holders (% shares outstanding)		
1	Orkla ASA (Financial Investments)		39.7%
2	Hafslund ASA		11.5%
3	Fidelity Management & Research		4.9%
4	Folketrygdfondet		3.7%
5	FIL Investments International Ltd.		0.9%
6	Sumitomo Corp.		0.5%
7	Swisscanto Asset Management AG		0.4%
8	DnB NOR Kapitalforvaltning ASA		0.4%
9	SEB Investment Management AB		0.4%
10	KBC Asset Management Ltd. (Ireland)		0.4%

Source: Factset, Barclays Capital

# Accounting issues

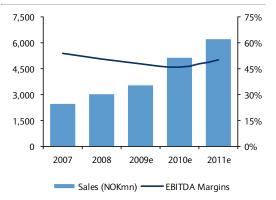
REC's modules contain a five-year limited warranty that the product is free of defects, a 10 year limited warranty of 90% power output and a 25 year limited warranty of 80% power output. Currently, REC provides 0.9% of accumulated sales for these warranties provided. At the end of 2008, customer relationships for AsiMI and SGS are amortised over a period of 10 to 16 years. Other intangible assets for furnace technology in REC Wafer are amortised over 10 years. Total carrying value of goodwill represents NOK0.9bn. Sovello, in which REC has a 33% interest, failed to comply with a covenant relating to a loan of which REC's share amounted to NOK395m. REC has committed purchase of goods and services of NOK3.4bn and capital expenditure of NOK3.7bn for total contractual obligations of NOK7.1bn.

#### **REC Silicon**

REC Silicon is a leading supplier of polysilicon and silane gas for the photovoltaic and electronics industries. Primarily using the Siemens process, the company has developed proprietary technologies to produce polysilicon through a potentially more cost-efficient process: FBR. The company has two facilities in the US; in Moses Lake (FBR technology), Washington and Butte (Siemens process technology), Montana. A third plant (Silicon III) started production in March 2009 after overcoming difficulties with FBR discharge pipes and a fourth silane gas plant (Silicon IV) is currently under construction. The division expects to triple capacity to 17,000 MT by 2011. REC typically enters long-term contracts with predetermined prices and volume and in 2008 the top five customers accounted for 90% of sales. Customers include Air Liquide, Air Products and Chemicals, Sovello, Praxair, Shin-Etsu Handotai and Sumco Techxiv.

Key competitors: Wacker Chemie, Hemlock, Tokuyama, MEMC, Mitsubishi materials, Sumitomo Corporation

#### **Divisional forecasts**



## Key issues

- Capacity expansion: After delays in the commissioning phase of the FBR facility, potential risks remains in the ramp-up phase, which might materially impact REC's financial performance and force the company to source some of its own polysilicon needs on the spot market.
- Despite REC's solid customer base and predetermined prices and volume for long-term contracts, we believe there is a potential risk that the terms of the contract may be renegotiated following pricing pressure throughout the downstream part of the solar PV supply chain. Spot prices remained above long-term contracts in 2009. Continued weakness on the spot market could potentially accelerate renegotiations on long-term contract prices beyond volume and delivery schedule.

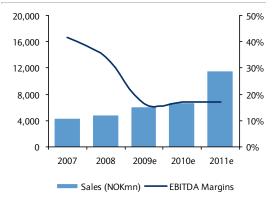
Source: Company data, Barclays Capital

#### **REC Wafer**

REC Wafer is a leading supplier of multi and monocrystalline wafers for the solar PV cell industry, with production facilities based in Norway. Two new multicrystalline wafer plants, Heroya III and IV, are currently in ramp-up phase and REC plans to increase wafer production to 1.7GW in 2010 and 2.4GW in 2011. In 2008, production fell below target due to limited polysilicon availability and in 2Q09 production was temporary reduced due to "challenging market conditions". However, the company has an attractive competitive position and we believe operating margins in the division are sustainable over the medium term. We believe REC has a significant technological edge over its competition and that expansion plans in Singapore have the potential to materially improve the company manufacturing cost structure. REC Wafer's customer base includes BP Solar, Gintech, Mitsubishi, Motech, Moser Baer, Photovoltech, Q-Cells, Sharp, Solland, Suniva and SunTech.

Key competitors: LDK, Solarworld, PV Crystalox, Wacker Schott, MEMC, Renesola, Ersol

#### Divisional forecasts



Source: Company data, Barclays Capital

# Key issues

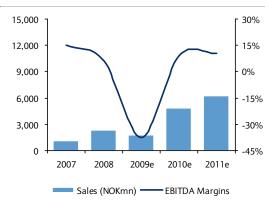
- The company has renegotiated the majority of its contracts over the course of 2009 mainly on delivery schedule and volume. For 2010 and beyond, we believe the company could review pricing terms under its long-term contracts so as to protect its relationships and commercial interests
- Expansion and existing lines upgrades: Coordination of wafer, cell and module ramp-up is key to achieving high capacity utilisation and operational leverage. In the event of delays in cells and module ramp-up in Singapore, owing to uncertainty on end-market demand in2010, we believe REC Wafer's performance could be significantly affected.
- REC Wafer was unable to agree on terms for contractual adjustments in a delivery contract with China Sunergy and therefore terminated the contract and called upon a US\$50mn bank guarantee in September 2009. China Sunergy claims that REC wafer is not entitled to draw the guarantee and has instituted legal proceedings to this effect.

#### **REC Solar**

REC solar produces solar cells in Narvik, Norway and solar modules in Glava, Sweden. The company currently has a production capacity of 225 MW for cells and 150 MW for modules. REC, through its integrated facility under construction in Singapore, aims to increase solar cell and module production capacity by 550MW and 590MW, respectively. The company expects to produce cells significantly above 16% efficiency at its Singapore facility and is continuously investing in R&D projects to further improve cells and module economics. Challenged by adverse pricing dynamic and demand constraints, REC Solar reduced production volumes by 50% in Q2 09 to allow for a reduction in inventories levels. The cost position of REC Scandinavian operations have become uncompetitive over the course of 2009 where REC proceeded to asset write-downs and implemented optimisation measures in manufacturing, sourcing and manning. The company anticipates negative EBITDA contribution from Scandinavian operations to continue into 2010. The company has recognised his Tier 2 position on the module segment and the company is exploring strategic alternatives (partnerships and alliance) to enhance its competitive position, access to market and realise the value of vertical integration.

Key competitors: E-ton, Q-Cells, First Solar, Gintech, Motech, Sharp, Solarworld, Solarfun, Yingli, Trina, JA Solar, Canadian Solar, Sunways, Aleo Solar, Ersol

#### Divisional forecasts

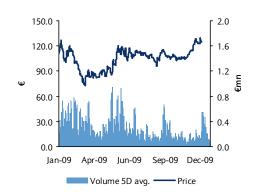


Source: Company data, Barclays Capital

#### Key issues

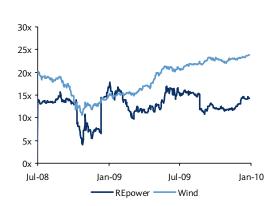
- Pricing for the division has proved difficult in 2009 as oversupply at the cell and module levels resulted in an intensification of competition, especially from Asian and Chinese competitors. Pricing fell by c40% over the course of 2009.
- The company anticipates it will produce modules below €1/Wp from its Singapore facility over the course of 2010. Should pricing decline in excess of 20% on H2 2009 levels the viability of the Singapore facility would be significantly challenged.
- The company has experience module quality issues over the course of 2009 which required module junction boxes to be repaired. The company expects to complete the majority of the replacements by the end of Q1 2010.

## Share price performance



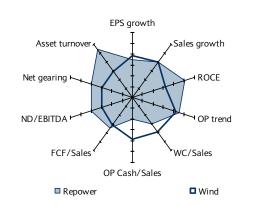
Source: FactSet, Barclays Capital

# Historic valuation (EV/EBIT)



Source: Bloomberg, FactSet, Barclays Capital

# Financial benchmarking



Source: FactSet, Barclays Capital

## REpower (2-EW, € 110 PT)

REpower's position in the global turbine market looks set to be cemented following the acceleration of cooperation with Suzlon. We note that the company has successfully secured new orders, reflecting its ongoing investment in research and development through leading turbine technology. Over the course of the year, we expect three main themes to emerge for the company: 1) its ongoing international expansion in terms of orders and manufacturing presence; 2), the focus on larger offshore turbines as developed countries in Europe seek to increase power generation from wind; 3) the resolution regarding the long-term ownership position of Suzlon. We believe the company is likely to remain separately managed and operated within the Suzlon Group similar to Hansen since its acquisition and subsequent divestment; although we expect Suzlon's management to work closely to integrate and leverage technology development through partnership and cooperation across their businesses.

#### **Bulls and Bears**

#### **Bulls**

- In-house developed technology and competitive advantage in the offshore
- Firm order backlog provides visibility into the next two years earnings
- €600mn syndicated loan facility secured provides financial flexibility

#### **Bears**

- Potentially higher warranty risk profile with offshore taking a larger share of product mix
- Lack of domestic manufacturing presence may limit market share gains in the US

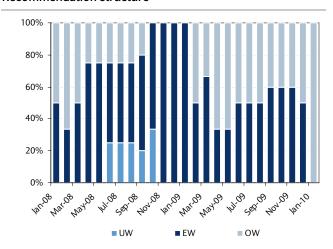
# Earnings estimate and company guidance

FY Mar, €	2008	2009	2010e	2011e	2012e
Revenue (mn)	680.2	1,209.1	1,309.5	1,532.1	1,746.6
EBIT (mn)	23.8	73.2	87.7	99.9	123.9
Margin (%)	3.5%	6.1%	6.7%	6.5%	7.1%
EBITDA (mn)	27.1	80.3	107.7	123.8	151.1
EPS	3.21	6.86	5.83	7.45	8.92
Consensus					
Revenue (mn)			1,389.9	1,710.9	2,101.5
EBIT (mn)			74.9	101.0	127.2
EBITDA (mn)			91.7	120.4	148.5
EPS (€)			5.33	6.74	8.37

Guidance: FY 2009/2010 revenue of €1.4bn with 7.5% EBIT margin

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: FactSet, Barclays Capital

## Divisional/group forecast

FY Dec, € mn	2009	2010e	2011e	2012e
<b>Sales</b> Group	1,209.1	1,309.5	1,532.1	1,746.6
EBIT margin (%) Group	6.1%	6.7%	6.5%	7.1%

Calendar

12 Feb 2010: Q3 FY 2010 Results

Source: Company data, Barclays Capital

#### Sector view: 1- Positive

- Despite an upward trend in financing costs over the last 18 months, the outlook for project IRR remained stable to positive driven by a substantial reduction in transportation and balance of system costs as well as commodity prices decline passed through indexed turbine contracts.
- Lead times significantly reduced over the past twelve months which had a negative impact on prices for unbooked capacities. Due to finance ability and technology limitations, we are not concerned by the emergence of Chinese competition on the medium term. With financing improving and incentive to complete projects in the next two years in major markets, we believe turbine manufacturers and Tier 1 supply chain players will benefit from a positive order momentum over the next 12-18 months.

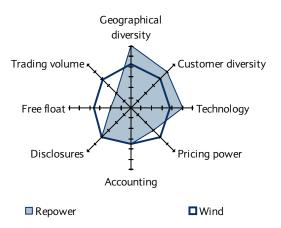
Source: Company data, Barclays Capital

# Price target sensitivity

€	Long term sales growth								
		-1.0%	-0.5%	0.0%	0.5%	1.0%	1.5%	2.0%	
	7.8%	87.7	94.5	101.4	108.3	115.2	122.1	129.0	
ı sales	8.3%	86.6	94.0	101.4	108.9	116.3	123.8	131.2	
turn or	8.8%	85.5	93.5	101.4	109.4	117.4	125.4	133.4	
erm rei	9.3%	84.4	92.9	101.4	110.0	118.5	127.0	135.5	
Long term return on sales	9.8%	83.3	92.4	101.4	110.5	119.6	128.6	137.7	
	10.3%	82.2	91.8	101.4	111.0	120.7	130.3	139.9	
	10.8%	81.2	91.3	101.4	111.6	121.7	131.9	142.0	

Source: Company data, Barclays Capital

# Competitive position and investability benchmarking



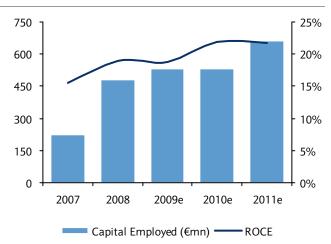
Source: FactSet, Company data, Barclays Capital

## Sales and EBIT



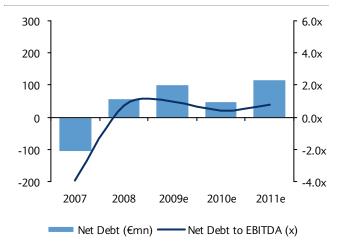
Source: Company data, Barclays Capital

# **CE and ROCE**



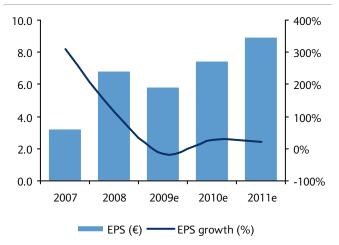
Source: Company data, Barclays Capital

# Net Debt to EBITDA



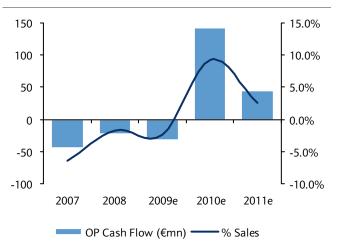
Source: Company data, Barclays Capital

# EPS and EPS growth



Source: Company data, Barclays Capital

# OP cash flow to sales



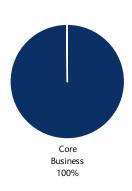
Source: Company data, Barclays Capital

# WC and WC/Sales



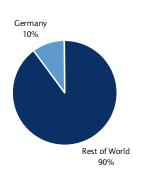
Source: Company data, Barclays Capital

## Divisional revenue breakdown (2008)



Source: Company data, Barclays Capital

# Geographical revenue breakdown (2008)



Source: Company data, Barclays Capital

#### Shareholder structure

Mar	ket value (€ 1.2bn) Floa	t 9%								
Тор	Top 10 holders (% shares outstanding)									
1	Suzlon Energy Ltd.	90.9%								
2	Pioneer Investments	1.3%								
3	BlackRock Investment Management (UK)	1.2%								
4	First Trust Advisors LP	0.4%								
5	KBC Asset Management Ltd. (Ireland)	0.3%								
6	Vontobel Asset Management AG	0.2%								
7	LBBW Asset Management Investment	0.2%								
8	Credit Suisse	0.2%								
9	Vinis GmbH	0.2%								
10	INVESCO PowerShares Capital	0.1%								

Source: Factset, Barclays Capital

## Corporate history

REpower started in 1994 with the production of 500KW turbines, which was later developed into 600KW turbines. In 1998, the company produced its first megawatt class turbine, the BWU 1000/57. It went on to develop the MD70 prototype, which at that time was the largest turbine in the world. In 2002, the company went public and started the development of the REpower 5M. The company has expanded its product offering and global footprint with local offices in China, the US, Belgium, Spain, Japan, Australia, Greece, Portugal, Italy and France, besides Germany. In June 2007, Suzlon acquired 33.85% of total share capital, increased to a level of 66% in 2008 following the acquisition of a 30% stake in Areva. In 2008, REpower Systems AG and DOTI conclude a contract for the delivery of six REpower 5M for the first German offshore project: the alpha ventus. Suzlon through the acquisition of Martifer stake increased its stake to 91% of capital over the course of 2009. The company continued its product development in 2009 with the erection a 6M (6.15MW) prototype erected at the German-Danish border.

## Management

Per Hornung Pedersen, CEO (January 2008). He has an MBA degree and is a Bachelor of Science in Accounting & Finance. Mr. Pedersen started his career as an auditor at Arthur Andersen & Co. After having held CFO positions in the packaging and telecommunications industry (Bosch Telecom), he joined the wind industry in 2000. After having held CFO positions of NEG Micon for four years, he joined Suzlon in 2004 to take responsibility for the company's international expansion.

Matthias Schubert, CTO: is a graduated engineer in the field of fluid dynamics and MSE for Aero-space Engineering. Mr. Schubert worked as an expert of the Research Ministry in the field of wind power systems. Since 1997, Schubert has been manager of pro + pro Energiesysteme that develops complete wind power systems and markets them as a licence product globally.

Lars Rytter Kristensen, CSCO (April 2008): He graduated with a Master of Administration in Business Management and has been working in the wind industry. Since 1995. As Chief Supply Chain Officer (CSCO) he is responsible for the areas of Purchasing, Production and Logistics.

Website: www.repower.de

## Accounting issues

For constriction contracts, percentage of completion accounting is used through the cost to cost method. Capitalised development costs are generally written off over 5 years. During the year, the company capitalised €7.4mn (2007: €2.0mn) and the total research and development costs were €22.1mn (2007: €4.0mn). The company has provided €19.9m for warranty expenses up from €18.3mn in 2007. REpower has purchase commitments of €263.4mn (2007: €640.7mn) at the balance sheet date.

#### M&A

2009: Suzlon increases its stake to 91% following the acquisition of Martifer stake.

2008: Suzlon acquires a 30% stake from Areva. Suzlon owns 66% of capital.

2007: Suzlon acquired 33.85% of share capital (91% of voting rights after agreements with Martifer and Areva).

## Products and activities

REpower is primarily involved in the development, design, production, monitoring and service and maintenance of wind turbines. The REpower product offer comprises wind turbines with an output ranging from 1.5 MW up to 6.15 MW, and rotor diameters from 70 up to 126 metres. The product range offered can handle a host of topographical variations, such as strong or weak winds, cold or hot climate, flat land or mountains, and onshore or offshore. REpower is essentially targeting utility developers through its 2.05MW turbine range that is specifically optimised for onshore sites with high (MM82) to low (MM92) wind characteristics as well as through its offshore technology. However, the company is increasing its product offer with the development of its onshore dedicated 3.3MW turbine and a 6.15MW version of the REpower 5M. The company also provides additional services: during the planning phase, it offers advice on evaluating location potential and micrositing, planning grid connections, technology, such as cabling and transformer stations, and infrastructure and foundation construction. The company's product focus remains on the serial production of the 3.X M turbine (3.3MW), improvement of the 5M turbine availability from current levels (c90%) to onshore standards (c95-98%) and the development to commercial application of the 6 M (6.15 MW) offshore turbine. While the offshore market is likely to represent less than 10% of total turbine demand over the next 5 to 10 years, it will represent a major growth driver for Repower, which intends to be a leading supplier in this market.

Key competitors onshore: Vestas, Gamesa, Siemens, GE, Enercon, Nordex, Suzlon, Clipper, Sinovel, Goldwind, Mitsubishi – Offshore: Siemens, Bard, Multibrid, Vestas

## **Divisional forecasts**



Source: Company data, Barclays Capital

#### Key issues

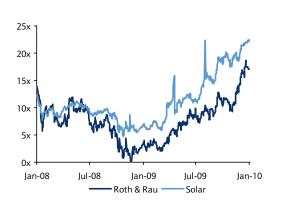
- Offshore: Despite the promising development of the offshore wind market, the operational risks, even if shared with developers, could have a material effect on warranties costs. In addition, the limited experience and availability of dedicated foundation and erecting platform for larger turbine (5MW+) might lead to short-and mid-term project delays. The company has commissioned six of its 5M (5MW) turbines to the Alpha Ventus offshore project in 2009. Demonstrating availability and power curve on offshore conditions is essential for the company to continue to strengthen its presence offshore. So far in total 23 REpower 5M turbines have been installed & commissioned, thereof 14 in deep water (up to 44 m).
- Global reach and scale: The company has concentrated its manufacturing facilities in Europe. Though the company has gradually entered the US (transport from EU) and Chinese (JV) markets, it has not yet established local manufacturing facilities which increases fx risks and put, in our view, REpower at a disadvantage with regards to operational and pricing flexibility. We believe this reflects the company's scale and prudent approach to expand capacity. The company benefits from significant demand visibility with a 1GW framework contract secured in Canada and should US market recover in 2010, we believe the company is likely to accelerate its US expansion plans.

## Share price performance



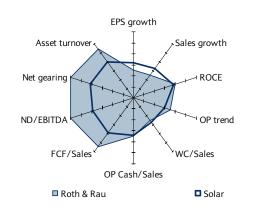
Source: FactSet, Barclays Capital

## Historic valuation (EV/EBIT)



Source: Bloomberg, FactSet, Barclays Capital

# Financial benchmarking



Source: FactSet, Barclays Capital

## Roth & Rau (2-EW, € 30 PT)

Roth & Rau's success in the coating business and its partnership with Manz has allowed it to maintain momentum going into 2010. As Chinese companies have sought to reduce costs and improve efficiency, R8R's products have gained a reputation for successful implementation. However, this has typically included contracts on a turnkey basis, which carries a higher risk profile than the traditional supply of equipment. In addition, as European companies have moved or opened new facilities to Asia, this creates additional opportunities for R8R but a significant rebound in order intake is only likely to take shape once there is a clear scope for regulation and demand for PV products to increase beyond both the current economic (and uneconomic) capacity that remains in place. With many customers and projects continuing to find access to capital markets restricted, investment in facilities continues to be challenging and limits the potential order flow in the early part of this year. As we move through the second half, with greater regulatory certainty and improved visibility on pricing and and the cost structure for 2011, new orders could become more prevalent for the company.

#### **Bulls and Bears**

#### **Bulls**

- Leading position in anti-reflective coating technology a key driver for cell efficiency improvements
- Strategic relationships with Manz Automation and research institutes.
- High barriers to entry and scope for replacement cycle to accelerate

#### **Bears**

- Risks associated with the execution of cell manufacturing line turnkey projects
- Uncertainty on end market and pricing outlook for cells has delayed investment decisions
- Integration risks around acquisitions realised over the past two years

# Earnings estimate and company guidance

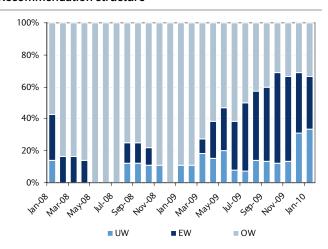
FY Dec, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	146.2	272.1	193.6	211.7	251.4
EBIT (mn)	13.9	28.5	15.0	19.0	24.6
Margin (%)	9.5%	10.5%	7.7%	9.0%	9.8%
EBITDA (mn)	15.6	34.6	30.5	31.7	35.6
EPS	1.84	2.32	-7.82	0.16	0.48
Consensus					
Revenue (mn)			204.3	230.6	281.6
EBIT (mn)			16.3	20.1	28.3
EBITDA (mn)			23.7	29.2	38.2
EPS (€)			0.90	1.06	1.43

#### Guidance:

■ 2009 Revenue €200mn and 8% EBIT margin

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: FactSet, Barclays Capital

## Divisional/group forecast

FY Dec, € mn	2008	2009e	2010e	2011e
Sales				
Phovoltaics	256.3	179.4	197.3	236.8
Plasma & ion	14.0	14.2	14.3	14.6
Other	1.8	0.0	0.0	0.0
EBIT margin (%)				
Phovoltaics	10.5%	7.8%	9.1%	9.9%
Plasma & ion	8.4%	6.7%	6.9%	8.1%
Other	na	Na	na	Na

Source: Company data, Barclays Capital

# Price target sensitivity

€		Long term sales growth						
		5.5%	6.0%	6.5%	7.0%	7.5%	8.0%	8.5%
	3.8%	29.2	28.8	28.4	28.1	27.7	27.3	27.0
Long term return on sales	4.3%	29.7	29.4	29.0	28.7	28.4	28.1	27.7
turn or	4.8%	30.2	29.9	29.6	29.3	29.0	28.8	28.5
erm ref	5.3%	30.7	30.4	30.2	30.0	29.7	29.5	29.2
Long te	5.8%	31.2	31.0	30.8	30.6	30.4	30.2	30.0
	6.3%	31.6	31.5	31.4	31.2	31.1	30.9	30.8
	6.8%	32.1	32.0	31.9	31.8	31.7	31.6	31.5

Source: Company data, Barclays Capital

#### Calendar

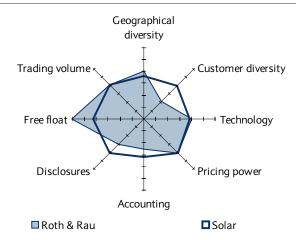
- 21 May 2010: Annual General Meeting
- Results date not yet available

Source: Company data, Barclays Capital

## Sector view: 1- Positive

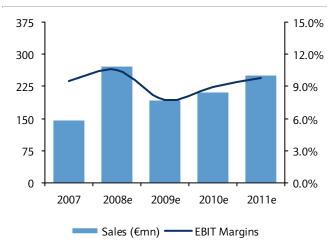
- The solar sector was affected in 2009 by a sudden shift in supply demand driven by regulatory changes in Spain and financing constraint. Industry fundamentals have significantly improved with financing availability and demand showing some signs of elasticity from lower installation costs post renegotiations across the supply chain.
- Equipment manufacturers benefit from asset-light business models with lower pressure on working capital than the solar PV supply chain. Over 2010, we expect order intake to accelerate as a result of higher demand and pricing visibility. In addition, we expect a wave of equipment replacement in 2010 as a significant share of the existing production capacity at the industry aggregate level has become uneconomic following the 30-50% ASP decline experienced in 2009.

# Competitive position and investability benchmarking



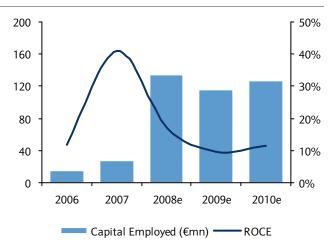
Source: FactSet, Company data, Barclays Capital

## Sales and EBIT



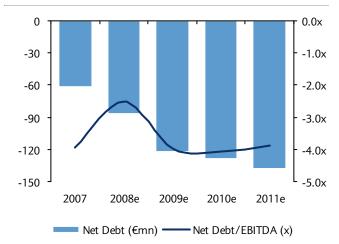
Source: Company data, Barclays Capital

# **CE and ROCE**



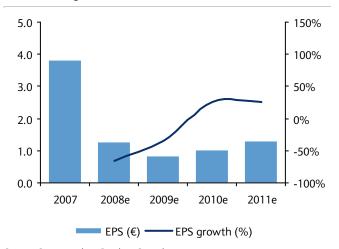
Source: Company data, Barclays Capital

# Net Debt to EBITDA



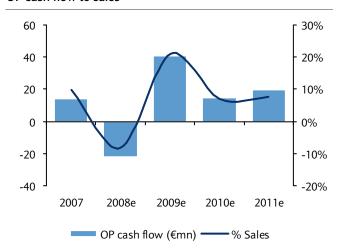
Source: Company data, Barclays Capital

# EPS and EPS growth



Source: Company data, Barclays Capital

# OP cash flow to sales



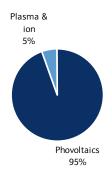
Source: Company data, Barclays Capital

# WC and WC/Sales



Source: Company data, Barclays Capital

## Divisional revenue breakdown (2008)



## Corporate history

In 1990, Roth & Rau Oberflaechentechnik was founded by Dr. Dietmar Roth, Dr. Bernd Rau and Dr. Silvia Roth, who were formerly scientists in the department of physics of the University of Technology in Chemnitz. From 1991 to 1993, the company focused on the development and production of components for plasma and ion beam technology and building up of the service department hard coatings for tools and component parts. In 1998, the company started the processing of the development projects for photovoltaics and commissioning of the first equipment in solar research institutes and the photovoltaic industry. In 2008, it founded SLS Solar Line Saxony, a joint venture with USK Karl Utz Sondermaschinen for the production of automation equipment for solar cell production.

Source: Company data, Barclays Capital

## Geographical revenue breakdown (2008)



## Management

Dr. Dietmar Roth, CEO: Dr. Roth received a PhD from the University of Technology Chemnitz in 1974. From 1974 to 1990 Dr Roth conducted research projects in the thin film and surface technology field.

Carsten Bovenschen, CFO. Studied Business Administration at RWTH Aachen. He has occupied various management positions in accounting- and controlling departments. Coveright and WEDECO AG.

Internet Address: www.roth-rau.de

Source: Company data, Barclays Capital

# Shareholder structure

Mar	ket value (€ 438mn) Floa	at 87%
Тор	10 holders (% shares outstanding)	
1	Swisscanto Asset Management AG	8.8%
2	ROTH DIETMAR	5.8%
3	RAU BERND	5.5%
4	Fidelity Management & Research	5.1%
5	BlackRock Asset Management Deutschland	d 4.4%
6	LBBW Asset Management Investment	3.2%
7	Deka Investment GmbH	3.2%
8	Delta LLoyd Asset Management NV	3.0%
9	Bank Sarasin & Cie. AG	2.7%
10	Pictet Asset Management SA	2.2%

Source: Factset, Barclays Capital

# Accounting issues

Where construction contracts fall short of 50% of completion, no profit is recognised until sales exceed this level of completion. Development expenses of  $\in$ 4.9mn were capitalised and  $\in$ 0.4mn were charged to the profit and loss account. For assessing the goodwill relating to AIS a discount rate of 10.8% has been applied, leading to an impairment of  $\in$ 1.6mn. In December 2008, R8R purchased Ion-Tech for  $\in$ 0.7mn which was a closely related company of the group.

#### M&A

2009: acquisition of Ortner cleanroom logistic systems acquisition

2009: acquisition of Romaric Automation

2009: acquisition of CTF Solar

2008: acquisition of Tecnofimes

2008: acquisition of Ion-Tech

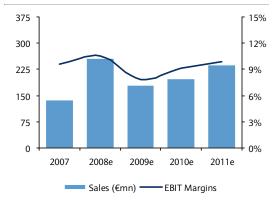
2008: acquisition of MUEGGE Electronic (microwave technology)

#### Photovoltaic

The business segment of photovoltaics comprises the business areas of equipment (process plants for the manufacture of crystalline silicon solar cells), thin-film technology (process plants for the manufacture of thin film solar modules) and turnkey production lines (design, planning and installation of fully automated production lines for the industrial manufacture of crystalline silicon solar cells). The company's main product in this segment is the SiNA series of anti-reflection coating plants. This plant series currently consists of four models varying in production capacity between five and 100 MWp, thus ensuring that individual customer needs ranging from pilot production to fully automated mass production can be satisfied. In 2008, to increase its technology share of the cell and thin film manufacturing lines, Roth & Rau acquired its long-term partner MUEGGE Electronic (microwave systems technology), Tecnofimes and entered into a joint venture agreement with USK Karl Utz Sondermaschinen for the production of automation equipment. In addition, Roth and Rau has strengthened its strategic alliances with Manz Automation in turnkey cell production lines. Together Manz Automation and Roth and Rau are now able to cover all process stages and equipment. In particular, the company targets the services and spare parts business to grow from 4% currently to above 10% over the next three years.

Key competitors: Centrotherm, Solarcoating Machinery GmbH, Leybold Optics Dersden, GmbH, all4-GP Inc.

#### Divisional forecasts



## Key issues

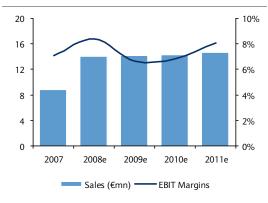
- We believe that the focus on turnkey lines is likely to put incremental pressure on working capital development. In addition, given reduced demand, we believe that customers are likely to negotiate more favourable payment schedules, which may also negatively impact the company's working capital position
- Demand visibility remain low and until the outlook for volume and pricing becomes clearer, we believe the company is unlikely to see material improvement in order backlog.

Source: Company data, Barclays Capital

#### Plasma and Ion Beam

Roth & Rau AG offers plasma & ion sources and tailor-made systems solutions for plasma & ion beam supported thin-film and surface treatment processes. Roth & Rau supplies industries such as microelectronics, nanotechnology, optics or medical engineering as well as research & development institutes. The company's most important product in this segment is the ion beam etching plant IonScan 800. This plant may be used to produce extremely smooth surfaces and perform post-processing operations on surfaces with maximum precision based on a novel ion beam etching technology – referred to as ion beam trimming – developed by the company.

## Divisional forecasts



Source: Company data, Barclays Capital

## Key issues

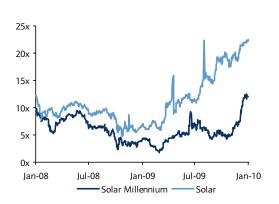
Overall, despite long relationship with existing customers, growth remains related
to its sub-markets economic developments and a wide range of investment
cycles in the industries. In future, we believe that sales and earnings growth is
expected to be limited.

#### Share price performance



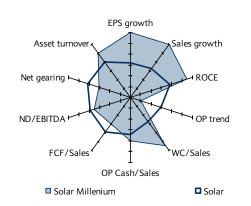
Source: FactSet, Barclays Capital

## Historic valuation (EV/EBIT)



Source: Bloomberg, FactSet, Barclays Capital

# Financial benchmarking



Source: FactSet, Barclays Capital

## Solar Millennium (2-EW, €35 PT)

As Solar Millennium ended 2009 successfully with both technical and financial completion of its second Spanish project, this increased the market's perception of its ability to deliver on its development potential. Given the increasing focus on cost of energy and the associated financial returns, we believe S2M's concentrating solar power business has a significant amount of potential which the company should be able to successfully build out over the medium term. A number of challenges remain for the company to resolve. First, securing PPAs for projects and the necessary land and grid connection licenses in order to begin the financing process. Second, accessing capital and debt markets to fund the various elements of these CSP projects, of which we believe the company will need to add between €100-200mn of equity in order to manage working capital investments linked to some of the MOU's and LOI's already disclosed. Third, the company will need to agree prior to complete sell down of their interest and payment for work completed in order to avoid significant cash flow deficits that would otherwise impinge upon future work. Finally, the company will need to ensure that the project risks associated with CSP transactions, which remain high given the limited track record in different geographies, is carefully monitored and measured.

#### **Bulls and Bears**

#### Bulls

- CSP offers a dispatchable, scalable and cost effective and attractive technology for utilities to achieve renewable generation requirements
- 484MW 20 year PPAs signed with SCE for with an additional 484MW under option and MOU with SCE and Nevada Energy
- Pre registration obtained for Andasol 3 and Ibersol in Spain, a pre-requisite to attract additional investors

#### **Bears**

- Constrained balance sheet which limit the company's ability to conduct more than two major projects at the same time
- Funding environment for large CSP project is improving but remain scarce and could delay, limit progress on projects under development
- Regulatory changes in Spain may have an adverse effect on the development of the company's project.

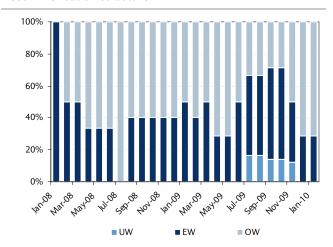
# Earnings estimate and company guidance

FY Oct, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	31.1	32.0	198.4	288.2	454.2
EBIT (mn)	16.4	11.2	42.9	58.3	79.5
Margin (%)	52.5%	35.0%	21.6%	20.2%	17.5%
EBITDA (mn)	16.7	11.6	46.8	68.9	101.7
EPS	1.20	0.49	2.42	3.09	4.30
Consensus					
Revenue (mn)			200.0	288.9	435.0
EBIT (mn)			42.8	56.6	71.3
EBITDA (mn)			44.6	60.5	78.8
EPS (€)			2.29	2.93	3.48

Guidance: na

Source: Barclays Capital, FactSet, Company data

#### Recommendation structure



Source: FactSet, Barclays Capital

## Divisional/group forecast

FY Oct, € mn	2008	2009e	2010e	2011e
Sales				
Development	16.1	29.0	40.6	56.8
Technology	19.8	30.6	42.9	60.0
Construction	0.1	138.0	203.9	336.4
Financing	0.7	0.8	0.9	1.1
EBIT margin (%)				
Development	69.6%	70.4%	62.9%	60.6%
Technology	16.8%	17.4%	16.7%	16.4%
Construction	na	13.6%	13.3%	10.9%
Financing	53.1%	53.6%	54.5%	52.1%

Source: Company data, Barclays Capital

# Price target sensitivity

€	Long term sales growth							
		-0.5%	0.0%	0.5%	1.0%	1.5%	2.0%	2.5%
	33.0%	32.7	33.5	34.2	34.9	35.6	36.3	37.0
Long term return on sales	33.5%	32.7	33.5	34.2	34.9	35.7	36.4	37.2
turn or	34.0%	32.7	33.5	34.2	35.0	35.8	36.5	37.3
erm re	34.5%	32.7	33.5	34.3	35.0	35.8	36.6	37.4
Long te	35.0%	32.6	33.5	34.3	35.1	35.9	36.7	37.6
	35.5%	32.6	33.5	34.3	35.2	36.0	36.8	37.7
	36.0%	32.6	33.5	34.3	35.2	36.1	36.9	37.8

Source: Company data, Barclays Capital

## Calendar

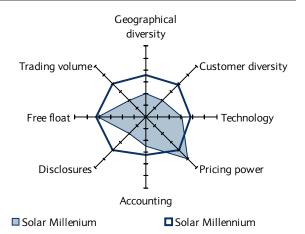
Results date not yet available

Source: Company data, Barclays Capital

## Sector view: 1- Positive

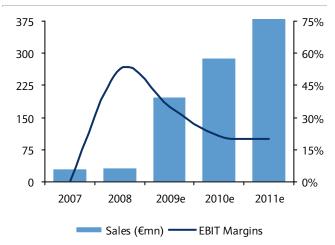
- The solar sector was affected in 2009 by a sudden shift in supply demand driven by regulatory changes in Spain and financing constraint. Industry fundamentals have significantly improved with financing availability and demand showing some signs of elasticity from lower installation costs post renegotiations across the supply chain.
- The downstream segment was the first to suffer from declining demand, which put significant pressure on working capital and liquidity. With improving demand and pricing visibility, we expect the downstream players to also be among the first beneficiaries and, in particular, players with strong relationships in the German market, which we expect to be particularly strong in the first half of 2010.

# Competitive position and investability benchmarking



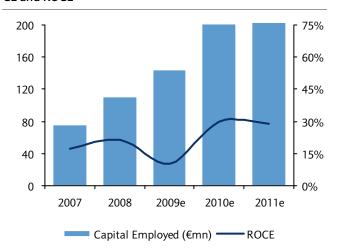
Source: FactSet, Company data, Barclays Capital

## Sales and EBITDA



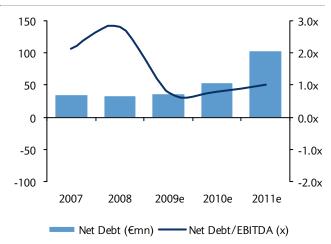
Source: Company data, Barclays Capital

# **CE and ROCE**



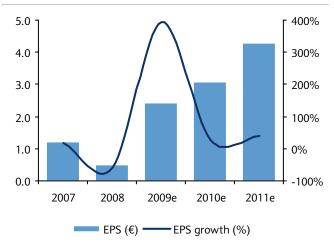
Source: Company data, Barclays Capital

# Net Debt to EBITDA



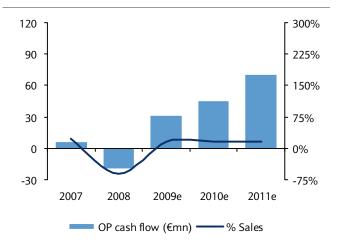
Source: Company data, Barclays Capital

# EPS and EPS growth



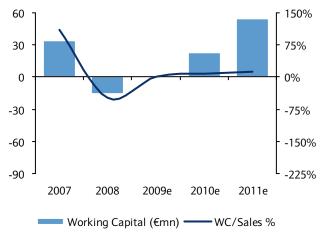
Source: Company data, Barclays Capital

# OP cash flow to sales



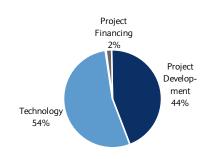
Source: Company data, Barclays Capital

# WC and WC/Sales



Source: Company data, Barclays Capital

## Divisional revenue breakdown (2008)

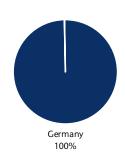


## Corporate history

Solar Century Management GmbH was founded in 1998. In 1999, it changed its legal status creating Solar Millennium AG. The company developed the first parabolic trough power plants in Europe, Andasol 1 with a capacity of 50MW. Andasol 2 has now been completed and Andasol 3 is currently under construction in southern Spain. With a gross electricity output of around 180GWh per year and a collector surface area of over 510,000 square meters, Andasol 1 started operation in 2009 as Europe's first parabolic trough power plant. As a former Solar Millennium partner, the ACS/Cobra Group now holds a 100% share in each of the Andasol 1 and Andasol 2 projects. The company has been expanding its operation globally in the US and middle East in order to respond to growing demand from these regions. In 2009, the MAN Solar Millennium joined ABB, ABENGOA Solar, Cevital, DESERTEC Foundation, Deutsche Bank, E.ON, HSH Nordbank, Munich Re, M+W Zander, RWE, SCHOTT Solar and Siemens to form the DII joint venture and accelerate the development of the Desertec initiative.

Source: Company data, Barclays Capital

#### Geographical revenue breakdown (2008)



## Management

Dr. Utz Claassen, CEO: studied in Hanover and Oxford, earning a doctorate in Hanover and Prof. Utz Claassen, held CEO position of EnBW Energie Baden-Württemberg AC from 2003 to 2007. Previously, Dr. Utz Claassen held CEO positions in the biotech industry and as a consultant with McKinsey.

Thomas Mayer, CFO. A business studies graduate, he has vast experience as board member and managing director of companies internationally active in commerce, financial services and brand name products.

Dr. Henner Gladen, CTO, is one of the founders of the company and responsible for technological development. He has comprehensive experience in R&D of power plant and structural engineering.

Website: www.solarmillennium.com

Source: Company data, Barclays Capital

# Shareholder structure

Mar	Market value (€480mn) Float				
Тор	10 holders (% shares outstanding)				
1	KUHN JOHANNES NICOLAUS	17.0%			
2	Balance AG	16.9%			
3	JPMorgan Securities Ltd. (UK)	5.1%			
4	BNP Paribas Asset Management (France)	3.4%			
5	UBS Global Asset Management Switzerland	2.6%			
6	Delta LLoyd Asset Management NV	2.3%			
7	Accrued Equities, Inc.	2.2%			
8	GLADEN HENNER	2.0%			
9	Swisscanto Asset Management AG	1.9%			
10	DnB NOR Kapitalforvaltning ASA	1.7%			

## Accounting issues

The company carries contingent risks of €100mn, for receivables (€22mn) and guarantees issued (€78mn). Long-term production orders are accounted for on the balance sheet and valued using the percentage of completion accounting method.

## M&A

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Source: FactSet, Barclays Capital

#### Product and activities

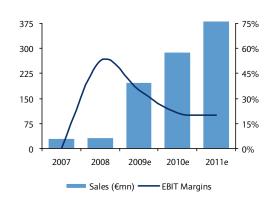
Solar Millennium AG is a globally active player in Concentrated Solar Power development. Solar Millennium specialises in parabolic trough power plants, a proven technology in which the company has significant cost reduction potential, in our view. Solar Millennium has a vertical integration strategy with exposure ranging from project development to technology, from turnkey construction of the plants to the operation and ownership of power plants. The company is also actively involved in developing more efficient collectors that would lower cost of solar thermal installations. Through its subsidiary, Flagsol, the company has developed a new set of collectors, which are not only larger and more efficient, but also entail a lower construction cost. Through these innovations, the company hopes to reduce the cost of energy from solar thermal by 15-20%.

At the end of 2008, the company completed Andasol 1, its first large scale solar thermal plant. Andasol 1 has an installed capacity of 50 MW. In addition, it also uses Solar Millennium's thermal storage technology, which can provide power back-up to the grid for up to 7.5 hours when the sun is not shining. The project has been sold to the ACS Cobra group. The company has two more similar projects (Andasol 2 and 3) under development at sites adjoining Andasol 1. The Andasol 2 project was completed in 2009 (and sold to ACS Cobra) and the company, together with its partners (Man Ferrostaal, RWE Innogy, Stadtwerke Munchen and RheinEnergie) anticipates to finalise the construction of Andasol 3 over the course of 2010.

In the US, Solar Millennium Group has secured two power purchase agreements (PPA) with Southern California Edison (SCE) for two 242MW projects with an option to include a third 242MW project. The projects, located in Ridgecrest, Palen and Blythe, are in an advanced stage of development. The company has also concluded a Memorandum of Understanding with Nevada Energy for the development of at least one solar thermal power plant in Nevada. Solar Millennium AG, Erlangen has engaged Citigroup and Deutsche Bank to provide advisory services to structure and secure financing for its US pipeline. The mandated banks are structuring the debt and equity financing and provide support in securing subsidies and loan guarantees granted by the Department of Energy within the American Recovery Act.

Key competitors: Abengoa, Acciona, Brightsource, Ausra, ACS Cobra

#### Divisional forecasts



Source: Company data, Barclays Capital

## Key issues

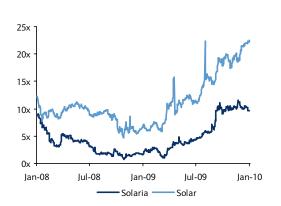
- Performance: The long-term performance of solar thermal plants set up by Solar Millennium remains to be demonstrated over a multi year time frame. We think the performance of Andasol 1 and 2, the first and second parabolic through projects commissioned by the company, is essential in this regard.
- Supply chain: The company is confident that it will be able to meet its requirements going forward and is also optimistic that its suppliers would be able to easily ramp-up capacity when required. In the event of a simultaneous execution of projects from Solar Millennium and its competitors in 2010, the company may experience some supply chain constraints.
- Financing: Funding environment for large CSP project is improving but remain scarce and could delay or limit progress on projects under development. In addition, the company's constrained balance sheet limits its ability to conduct more than two major projects at the same time.

## Share price performance



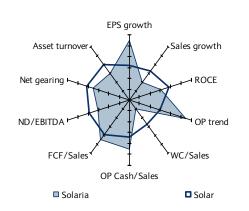
Source: FactSet, Barclays Capital

## Historical valuation (EV/EBIT)



Source: Bloomberg, FactSet, Barclays Capital

# Financial benchmarking



Source: FactSet, Barclays Capital

## Solaria Energia (3-UW, €2.1 PT)

Solaria's position as a leading downstream operator in the Spanish market won the company significant favour in the previous demand cycle but the outlook for 2010 looks to remain a sobering affair. The level of actual installations in the Spanish market for 2009 was approximately c300MW against the 500MW set by local regulation, which provides some upside for installations this year. In addition, the company has initiated commercial sale operations in a number of other European countries and successfully navigated the first nine months of 2009, with a positive operating profit result and an improvement in liquidity position from payments received for projects commissioned in 2008 ahead of regulatory changes. However, questions remain about the company's ability to compete with the cost structure of their own module operations, and also on successfully entering new European markets given the existing operators. Favouring the company is increased PV demand outlook for the year, greater availability of modules and potential for improved regulatory support in its domestic market beyond 2012.

#### **Bulls and Bears**

#### **Bulls**

- Strong local presence and knowledge of the Spanish market
- Improved sourcing situation for cells and wafers
- Execution track record

#### Bears

- Single exposure to Spain for turnkey projects
- Regulatory changes in Spain gives licensing priority to roof top over ground mounted systems
- Company's high working and relative high leveraged profile

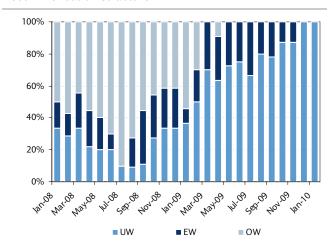
# Earnings estimate and company guidance

FY Dec, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	186.2	265.6	148.9	173.8	215.7
EBIT (mn)	71.1	-26.7	22.5	17.6	18.6
Margin (%)	38.2%	-10.0%	15.1%	10.1%	8.6%
EBITDA (mn)	79.2	-10.7	28.9	40.8	27.9
EPS	0.48	-0.21	0.20	0.17	0.21
Consensus					
Revenue (mn)			174.5	189.8	172.1
EBIT (mn)			26.2	21.2	13.1
EBITDA (mn)			35.0	31.3	24.8
EPS (€)			0.05	0.04	0.02

Guidance: na

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: FactSet, Barclays Capital

## Divisional/group forecast

FY Dec, €mn	2008	2009e	2010e	2011e
Sales				
Photovoltaic	110.0	105.0	121.3	157.1
Thermal	0.0	0.0	0.0	0.0
Project	8.1	109.7	120.7	132.7
Cells	1.0	0.0	0.0	0.0
EBIT margin (%)				
Photovoltaic	-7.9%	5.8%	5.1%	4.9%
Thermal	4.8%	0.0%	0.0%	0.0%
Project	-221.6%	14.9%	9.5%	8.2%
Cells	na	na	na	na

Source: Company data, Barclays Capital

# Price target sensitivity

€	Long term sales growth								
		0.5%	1.0%	1.5%	2.0%	2.5%	3.0%	3.5%	
	8.0%	2.36	2.23	2.10	1.97	1.84	1.71	1.58	
Long term return on sales	8.5%	2.37	2.25	2.13	2.01	1.89	1.77	1.65	
turn or	9.0%	2.38	2.27	2.17	2.06	1.95	1.84	1.73	
erm ret	9.5%	2.39	2.30	2.20	2.10	2.00	1.90	1.80	
Long te	10.0%	2.41	2.32	2.23	2.14	2.05	1.96	1.88	
	10.5%	2.42	2.34	2.26	2.18	2.11	2.03	1.95	
	11.0%	2.43	2.36	2.29	2.23	2.16	2.09	2.03	

Source: Company data, Barclays Capital

## Calendar

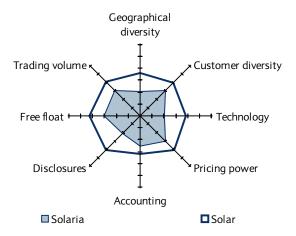
Results date not yet available

Source: Company data, Barclays Capital

#### Sector view: 1-Positive

- The solar sector was affected in 2009 by a sudden shift in supply demand driven by regulatory changes in Spain and financing constraint. Industry fundamentals have significantly improved with financing availability and demand showing some signs of elasticity from lower installation costs post renegotiations across the supply chain.
- The downstream segment has been the first to suffer from declining demand which put significant pressure on working capital and liquidity. With improving demand and pricing visibility we expect the downstream players to also be amongst the first beneficiaries and in particular players with strong relationships in the German market which we expect to be particularly strong in the first half of 2010.

# Competitive position and investability benchmarking



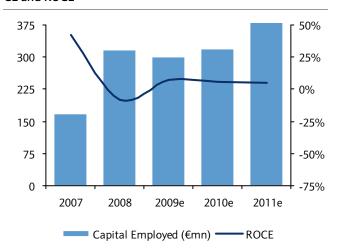
Source: Company data, Barclays Capital

## Sales and EBIT



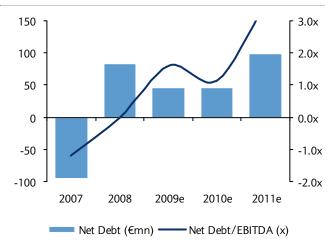
Source: Company data, Barclays Capital

# **CE and ROCE**



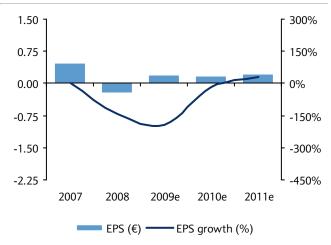
Source: Company data, Barclays Capital

# Net Debt to EBITDA



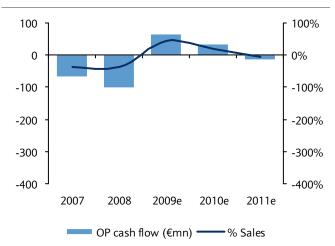
Source: Company data, Barclays Capital

## EPS and EPS growth



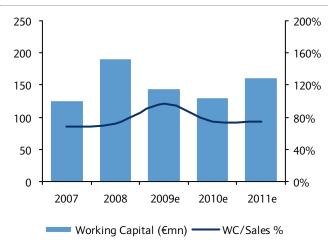
Source: Company data, Barclays Capital

# OP cash flow to sales



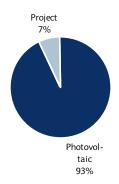
Source: Company data, Barclays Capital

# WC and WC/Sales



Source: Company data, Barclays Capital

## Divisional revenue breakdown (2008)

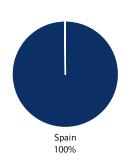


## Corporate history

Solaria Energia was established in 2002, by a team benefiting from more than 20 years of experience in the Energy sector. Between 2002 and 2003, the company focused on installing third-party modules to develop solar parks in the fast-growing Spanish market. In 2004, Solaria decided to follow the strategy of integrating the supply chain and selected equipment manufacturers for the design, installation and operation of a module manufacturing plant. The first in-house produced modules were installed in 2006. In 2007, the company decided to further integrate the supply chain and selected equipment manufacturers to produce solar cells, while expanding its module capacity. The company listed in June 2007.

Source: Company data, Barclays Capital

## Geographical revenue breakdown (2008)



## Management

Chairman:

Enrique Díaz-Tejeiro Gutiérrez

Executive directors:

CFO: Joaquin de Entrambasaguas

COO: Arturo Díaz-Tejeiro Larrañaga

Systems director: Miguel Diaz-Tejeiro Larrañaga

Internet address: www.solariaenergia.com

Source: Company data, Barclays Capital

# Shareholder structure

Ma	rket value (€270mn)	Float	37%
Тор	o 10 holders (% shares outstanding)		
1	Solaria DTL Corporacion SL		61.5%
2	Solaria Energia y Medio Ambiente SA		1.5%
3	Claymore Securities, Inc.		0.9%
4	Norges Bank Investment Managemen	t	0.6%
5	Dimensional Fund Advisors, Inc.		0.4%
6	INVESCO PowerShares Capital Management LLC		0.3%
7	KBC Asset Management (Belgium)		0.2%
8	Meeschaert Asset Management SA		0.1%
9	Arcalia Inversiones SGIIC SA		0.1%

Source: FactSet, Barclays Capital

# **Accounting issues**

Solaria uses degree of completion method for recording turn key projects under development. Solaria provides three-year warranties after the date of the final delivery of the project. In addition, the company guarantees a minimum output based on 100% for two years, 90% for up to 12 years and 80% for up to 25 years.

# M&A

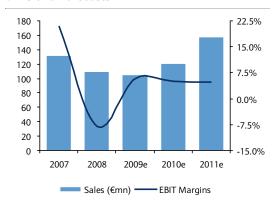
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## Photovoltaic modules

Initially focusing on distributing and installing third-parties' modules, Solaria Energia has produced solar modules since 2006. The company aims to increase its production capacity from 250MWp to 650MWp by the end of 2011. Solaria offers both mono and multicrystalline modules for residential and power plant applications. Historically, Solaria's strategy has been to put in place short-term contract solar cell manufacturers with potential incremental demand for modules being sourced from the spot market. To offset lower demand from Spain in 2009 due to changes in regulation the company has been focusing on developing a market presence in the Italian, French and Greek markets.

Key competitors: Solon, Aleo Sola, Trina, Yingli, Solarwatt, Solarfun, Sanyo, Sunpower, Suntech, Sunways, Sharp, Schott, BP, Evergreen

#### **Divisional forecasts**



## Key issues

With cell facility being ramped up in Europe, the viability of Solaria's manufacturing operations is challenged by competition from Asia Pacific and might have significant margin implications for the company near term.

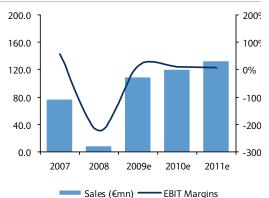
Source: Company data, Barclays Capital

## Turnkey projects

Solaria Energia offers turnkey project services to investment institutions and private individuals. The company operates through the entire value chain, from obtaining licences and building permits, designing plant layout, supplying key equipment to construction, start-up and maintenance. Solaria's project expertise ranges from residential to multi-MW applications and has so far focused entirely on its domestic market. In 2008, Solaria commissioned around 45MWp of ground-mounted projects in Spain prior to regulatory changes in September 2008. In order to offset the weaker demand the company experienced in its domestic market in 2009, Solaria Energia has expanded its operation to other European markets. Over the course of 2009, the company has started to operate projects completed over the course of 2008 under previous legislation which the company has been unable to sell to third party.

Key competitors: Conergy, Phoenix Solar, Centrosolar, Juwi, EDF Energies Nouvelles

#### **Divisional forecasts**

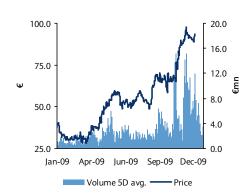


Source: Company data, Barclays Capital

# Key issues

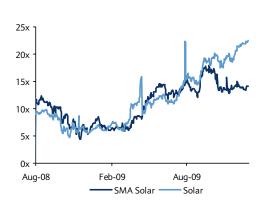
- The implementation of a 450MW cap on new installation in Spain has resulted in a national reallocation of permits obtained. The new legislation gives priority to roof-top installations over ground-mounted systems, which would result in a larger allocation of modules to supply-only contracts where the company is realising significantly lower margins. In addition, these licenses are announced on a quarterly basis, which limits the company's demand visibility.
- The company is yet to make inroads into other high-growth markets in Europe, namely Italy, France and Greece. We expect the company to actively pursue these markets in the coming year as demand from the Spanish market would be modest.

#### Share price performance



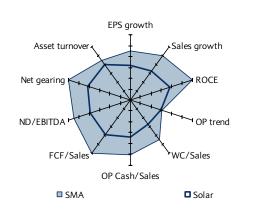
Source: FactSet, Barclays Capital

## Historical valuation (EV/EBIT)



Source: Bloomberg, FactSet, Barclays Capital

# Financial benchmarking



Source: FactSet, Barclays Capital

## SMA Solar (1-OW, €125 PT)

SMA solar ended last year as the favoured European solar company as it continues to enjoy significant market share and stable pricing which is linked to the level of actual PV installations. The outlook for this year continues to be favourable with expectations of global PV demand of between 7GW and 9GW, up from the estimated 6.5GW recorded in 2009. However, some challenges remain for the company: potential stocking of inverters ahead of regulatory change in Germany, which may lead to significant quarterly variations in demand and profitability. Second, the company may see increased competition as margins and the volume outlook continue to look attractive compared to other capital goods businesses and cycles. Third, we look for the timing and nature of new product launches this year given that the efficiency improvements made in the inverter segment over the last two years may make future innovation more difficult to achieve. Finally, the company has a limited free float of 26% which may also restrict shareholders in the company.

#### **Bulls and Bears**

#### Bulls

- Benefits from industry-leading technology, strong customer network, diversified product platform and service capabilities
- Elaborate certification procedures for PV inverters is likely to limit the number of players in the industry
- Global reach through US expansion and flexible business model allows production levels to be adjusted at short notice

#### Bears

- Short lead times and typically lower demand visibility than in other part of the solar supply chain
- SMA Solar has around 50% market share, a position which over the medium term might be challenged by the greater focus of industrial conglomerates
- Policy on warranty costs may lead to a higher carrying value on the balance sheet (currently 8% of assets) over the next two years

# Earnings estimate and company guidance

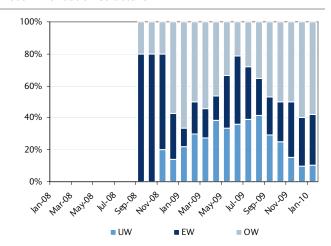
FY Dec, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	327.3	681.6	888.2	1,010.9	1,273.5
EBIT (mn)	59.3	167.4	206.7	237.7	292.0
Margin (%)	18.1%	24.6%	23.3%	23.5%	22.9%
EBITDA (mn)	75.3	176.2	224.6	257.3	314.1
EPS	1.06	3.44	4.26	4.93	6.08
Consensus					
Revenue (mn)			881.4	1,072.5	1,271.3
EBIT (mn)			210.1	235.2	261.9
EBITDA (mn)			225.6	262.0	294.3
EPS (€)			4.24	4.72	5.42

#### Guidance:

■ 2009: Revenue €850-900mn and 23-25% EBIT margin

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: FactSet, Barclays Capital

## Divisional/group forecast

FY Dec, €mn	2008	2009e	2010e	2011e
Sales				
PV Medium	558.2	742.2	748.0	816.1
PV High Power	127.4	104.7	219.2	410.1
Railway	23.9	28.7	29.8	32.1
Electronics	149.3	126.3	138.8	152.7
EBIT margin (%)				
PV Medium	21.9%	23.9%	23.7%	22.8%
PV High Power	24.3%	24.5%	25.7%	24.8%
Railway	7.5%	9.2%	9.2%	9.2%
Electronics	8.4%	8.5%	8.5%	8.5%

Source: Company data, Barclays Capital

# Price target sensitivity

€	Long term sales growth							
		2.0%	2.5%	3.0%	3.5%	4.0%	4.5%	5.0%
	14.0%	113.1	116.2	119.3	122.4	125.5	128.6	131.7
sales ו	14.5%	113.6	116.8	120.1	123.3	126.5	129.7	133.0
turn or	15.0%	114.1	117.5	120.8	124.1	127.5	130.8	134.2
Long term return on sales	15.5%	114.6	118.1	121.5	125.0	128.5	131.9	135.4
Long te	16.0%	115.1	118.7	122.3	125.9	129.5	133.0	136.6
_	16.5%	115.6	119.3	123.0	126.7	130.4	134.1	137.9
	17.0%	116.1	119.9	123.7	127.6	131.4	135.2	139.1

Source: Company data, Barclays Capital

#### Calendar

31 Mar 2010: FY 2009 Results21 Apr 2010: Capital Markets Day

■ 14 May 2010: Q1 2010 Results

27 May 2010: Annual General Meeting 2010

■ 13 Aug 2010: Q2 2010 Results

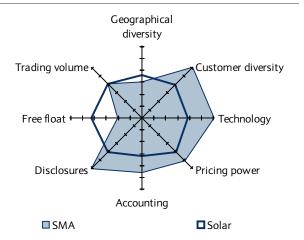
■ 12 Nov 2010: Q3 2010 Results

Source: Company data, Barclays Capital

#### Sector view: 1- Positive

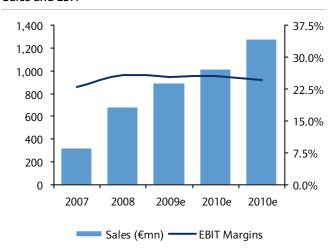
- The solar sector was affected in 2009 by a sudden shift in supply demand driven by regulatory changes in Spain and financing constraint. Industry fundamentals have significantly improved with financing availability and demand showing some signs of elasticity from lower installation costs post renegotiations across the supply chain.
- The downstream segment has been the first to suffer from declining demand which put significant pressure on working capital and liquidity. With improving demand and pricing visibility we expect the downstream players to also be amongst the first beneficiaries and in particular players with strong relationships in the German market which we expect to be particularly strong in the first half of 2010.

# Competitive position and investability benchmarking



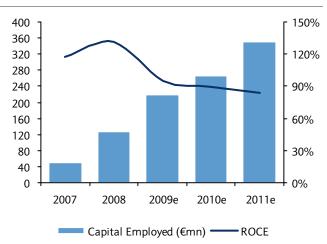
Source: Company data, Barclays Capital

## Sales and EBIT



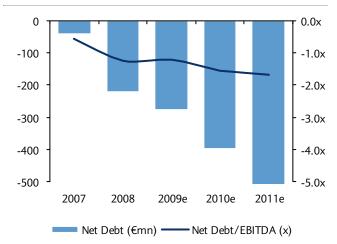
Source: Company data, Barclays Capital

# **CE and ROCE**



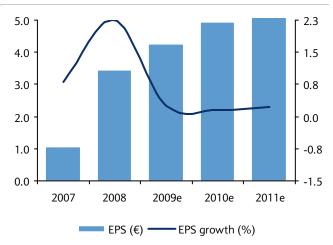
Source: Company data, Barclays Capital

# Net Debt to EBITDA



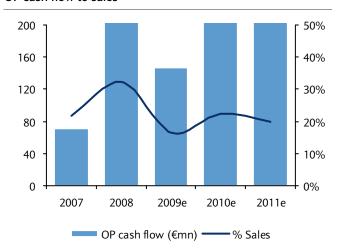
Source: Company data, Barclays Capital

# EPS and EPS growth



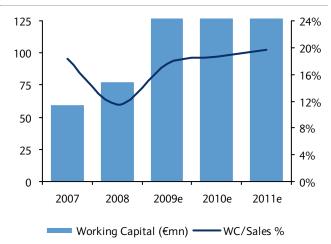
Source: Company data, Barclays Capital

# OP cash flow to sales



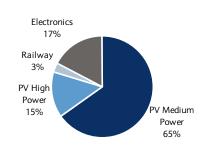
Source: Company data, Barclays Capital

# WC and WC/Sales



Source: Company data, Barclays Capital

#### Divisional revenue breakdown (2008)

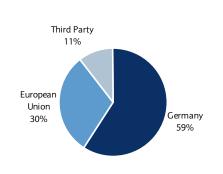


## Corporate history

SMA was founded in 1981 by Günther Cramer (CEO, Development), Peter Drews (Operations) and Reiner Wettlaufer (Finance) in Kassel. Pierre- Pascal Urbon (Sales & Marketing) became the fourth member of the Managing Board in 2006. The company is headquartered in Niestetal, Germany, and with twelve international subsidiaries on four continents, develops and sells solar inverters, central components of every solar power system. The SMA Group has over 3,500 employees currently and generated sales of €681mn in 2008. Since 27 June, 2008, the company has been listed in the Prime Standard of the Frankfurt Stock Exchange (S92) and since 22 September, 2008, the company's shares have been listed on the TecDAX.

Source: Company data, Barclays Capital

## Geographical revenue breakdown (2008)



## Management

Gunther Cramer (CEO)

Mr. Cramer studied electrical engineering at the University of Kassel from 1974 to 1978. After the conclusion of his studies, he was employed as a scientific assistant in various research projects in the area of controlling and systems technology for renewable energy supply systems at the University of Kassel until 1981. Mr. Cramer, together with Peter Drews, Prof. Dr. Kleinkauf and Reiner Wettlaufer jointly established the company in 1981 which developed into the present day SMA Solar Technology AG.

Pierre-Pascal Urbon (CFO)

Pierre-Pascal Urbon studied Business Administration. From 1997 to 2005 he worked at the investment bank Drueker & Co. in M&A and Corporate Finance. Pierre-Pascal Urbon has been working at SMA since 2005 and was appointed to the Managing Board in 2006. Since 2009 Pierre-Pascal Urbon is responsible on the Managing Board for the areas of Finance as well as Law and Investor Relations. He is also a member of the Central Regional Advisory Council of the Commerzbank AG.

Source: Company data, Barclays Capital

# Shareholder structure

Mai	ket value (€3.3bn) Floa	at 26%
Тор	10 holders (% shares outstanding)	
1	WETTLAUFER REINER	19.1%
2	DREWS PETER	19.1%
3	CRAMER GUENTHER	19.1%
4	KLEINKAUF WERNER	17.0%
5	Generation Investment Management	2.9%
6	Wellington Management Co. LLP	1.0%
7	BlackRock Investment Management	0.9%
8	Pictet Asset Management SA	0.7%
9	Swisscanto Asset Management AG	0.7%
10	F&C Asset Management Plc	0.6%

Source: FactSet, Barclays Capital

## Accounting issues

The company used a new methodology for assessing provisions, taking account of the previous experience. Had the company used the prior year's parameters, the lower valuation of  $\[ \in \]$ 15mn would have been the result. During the year, the company recorded a  $\[ \in \]$ 1.7mn impairment against  $\[ \in \]$ 0.5mn in the previous year. At the end of the year. The company carried  $\[ \in \]$ 32.7mn for production area provisions to meet future warranty claims.

#### M&A

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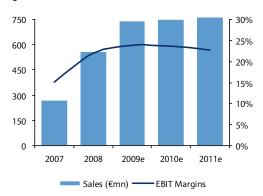
## Photovoltaics Technology

The Photovoltaics Technology division develops, produces and distributes inverters for the solar industry. The division is subdivided into two segments, Medium Power Solutions and High Power Solutions. Medium Power Solutions: this segment manufactures inverters and monitoring equipment for the residential (<5KW) and commercial segments (5-250KW). The company offers inverters and system components for on-grid systems as well as off-grid systems. The key products in the Medium power Solutions are Sunny Boy, Sunny Mini Central (inverters), Sunny Island (off grid systems) as well as Sunny Backup and monitoring solutions. In High Power Solutions, the segment manufactures inverters and monitoring systems for higher-capacity ranges of the commercial segment and for the industrial segment (>250KW). The key product group for this segment is Sunny Central and it supplies to a range capacity of 100KW up to 630KW which can be integrated into large multi MW systems. The company has a c45-50% market share on the solar inverter market, and based its strategy on: (1) leadership technology with the introduction of 5-6 products per annum, (ii) manufacturing flexibility with 2-3 weeks delivery times, (3) global manufacturing, sales and service presence.

Key competitors: Ingeteam, Fronius, Sputnik, Siemens, Xantrex

#### Divisional forecasts

#### **High Power solutions**



#### **Medium Power solutions**



Source: Company data, Barclays Capital

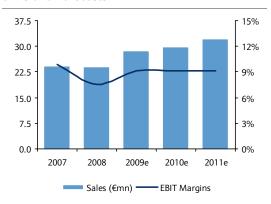
## Key issues

- Contracts: The company signs framework agreements, the contracts do typically contain indicative volume and pricing terms. However, the framework agreements typically include some flexibility as to the timing of deliveries which lead typically low visibility levels and variation in quarterly revenue development. In addition, framework agreements are usually re-discussed at the end of year to define terms and conditions for the following year.
- Capacity utilisation: SMA increased its production capacity from 2.5GW to 4GW over the course of 2009. The company has announced plans to increase its production capacity by an additional 1GW in the US over the course of 2010. Should market stabilize in 2010 against current expectation for growth to return to normalized level, the company might be affected by lower capacity utilisation.
- Customer concentration: While the company has a large customer base of almost 400 customers, we estimate that approximately 50% of the revenues are derived from the top 10-15 customers and SMA could be impacted by any deferrals in planned capacity expansion these key customers.

## Railway Technology

The Railway Technology division develops, produces and distributes power electronic components for local and long-distance railway systems. The emphasis is on energy supply and diagnostic systems for railway coaches and train sets. The railway technology division was spun off on 20 April 2008 for the purpose of establishing a new company and operates as a 100% subsidiary, SMA Railway Technology GmBH. Management believes that there exist significant synergies between the Photovoltaics Technology and Railway Technology businesses as the optimum connection between microprocessors and power electronic components is central to performance in both segments. Sales are mainly generated through two long-term projects for the delivery of energy supply systems for multiple-unit trains and the delivery of battery chargers in various projects. SMA benefits from a certain level of orders which will enable the company to maintain high capacity utilisation until 2011.

#### Divisional forecasts



## Key issues

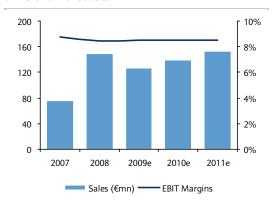
The main driver for demand is linked to investment in transport infrastructure and the mix between services offered includes both short and long haul traffic. In the current economic environment, expenditure from private operating companies may be deferred or cancelled, particularly for services, such as electrical and air conditioning equipment. However, where there is central government input, incremental expenditure may provide new source of revenue growth for the division.

Source: Company data, Barclays Capital

## **Electronics Manufacturing**

The division produces electronic components on fully-automated, high-performance assembly machines. Components are assembled in this segment using primarily pre-produced components and elements from external suppliers. The division primarily supplies to the Photovoltaics and Railway Technology divisions. The electronic assemblies produced typically include industrial computer applications used to control and regulate industrial processes.

#### Divisional forecasts

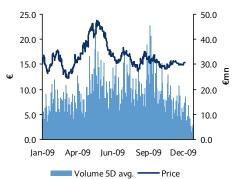


Source: Company data, Barclays Capital

# Key issues

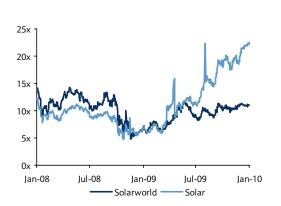
 The division is primarily maintained for accounting purposes in line with IFRS requirements.

#### Share price performance



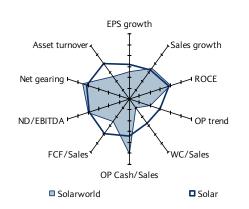
Source: FactSet, Barclays Capital

## Historical valuation (EV/EBIT)



Source: Bloomberg, FactSet, Barclays Capital

# Financial benchmarking



Source: FactSet, Barclays Capital

## SolarWorld (2-EW, €15.5 PT)

Solarworld's core business in the residential German market has been resilient in 2009 and this looks set to continue going into 2010. The company maintains its view on pricing for its wafers and asserts that its polysilicon contracts provides sufficient terms that allow it to remain competitive in the market place. Its partnership in Asia and exposure to the US market provides some support to the company, but risk remains that a weakness in the German market in the second half of the year limits stock performance for the company. Over the year, we expect there to be an ongoing focus on the capital and liquidity resources of the company, which has seen the net cash balance from Q2 2008 of €415mn decline to €311mn at Q2 2009.

#### **Bulls and Bears**

#### Bulls

- Diversified polysilicon sourcing strategy provides flexibility and long-term visibility (long-term polysilicon contract, JV, recycling)
- Integrated business strategy provides supply security and scope for cost reductions through operating leverage and technology innovations.
- Competitive position on the German residential market and access to promising US solar market with local production facilities and distribution channels.

#### Bears

- ASP premium against competition and especially from Asia is likely to decline over the next 12 month
- Relatively higher exposure to the German market than peers leading to potentially greater impact of a change in regulation
- Intensified price competition coupled with risk of delays, default and order cancellation in the wafer segment

# Earnings estimate and company guidance

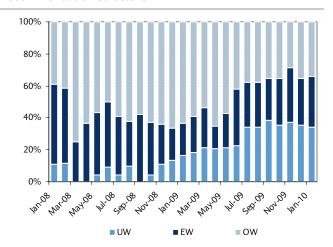
FY Dec, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	689.6	900.3	962.8	1,053.1	1,115.4
EBIT (mn)	182.7	242.1	164.9	187.1	202.7
Margin (%)	26.5%	26.9%	17.1%	17.8%	18.2%
EBITDA (mn)	240.9	316.0	275.6	326.3	400.1
EPS	0.79	0.91	0.71	0.83	0.92
Consensus					
Revenue (mn)			1,002.9	1,274.0	1,548.9
EBIT (mn)			169.5	178.2	212.0
EBITDA (mn)			239.3	264.9	311.0
EPS (€)			0.89	0.92	1.08

Guidance: 2009 Revenue over €1bn

Source: FactSet, Company data, Barclays Capital

13 January 2010 197

#### Recommendation structure



Source: FactSet, Barclays Capital

## Divisional/group forecast

FY Dec, €mn	2008	2009e	2010e	2011e
Sales				
Module Sales	319	455	567	523
Trade	524	667	680	752
Cell	291	359	302	334
Wafer	401	456	590	731
EBIT margin (%)				
Module	8.5%	7.7%	3.3%	4.0%
Trade	7.4%	7.8%	7.6%	7.6%
Cell	15.5%	17.8%	11.7%	11.7%
Wafer	20.7%	27.0%	12.5%	13.1%

Source: Company data, Barclays Capital

# Price target sensitivity

€	Long term sales growth								
		2.5%	3.0%	3.5%	4.0%	4.5%	5.0%	5.5%	
	9.5%	17.5	16.6	15.8	15.0	14.1	13.3	12.5	
Long term return on sales	10.0%	17.6	16.8	16.0	15.2	14.4	13.5	12.7	
turn or	10.5%	17.7	16.9	16.1	15.4	14.6	13.8	13.0	
erm re	11.0%	17.8	17.1	16.3	15.5	14.8	14.0	13.3	
Long te	11.5%	17.9	17.2	16.5	15.7	15.0	14.3	13.5	
	12.0%	18.1	17.4	16.6	15.9	15.2	14.5	13.8	
	12.5%	18.2	17.5	16.8	16.1	15.4	14.7	14.0	

Source: Company data, Barclays Capital

## Calendar

25 Mar 2010: FY 2009 Results

■ 11 May 2010: Q1 2010 Results

20 May 2010 Annual General Meeting

11 Aug 2010: Q2 2010 Results

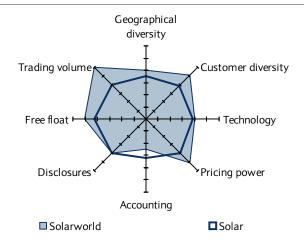
■ 11 Nov 2010: Q3 2010 Results

Source: Company data, Barclays Capital

#### Sector view: 1-Positive

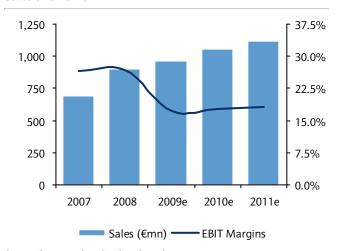
- The solar sector was affected in 2009 by a sudden shift in supply demand driven by regulatory changes in Spain and financing constraint. Industry fundamentals have significantly improved with financing availability and demand showing some signs of elasticity from lower installation costs post renegotiations across the supply chain.
- The downstream segment has been the first to suffer from declining demand which put significant pressure on working capital and liquidity. With improving demand and pricing visibility we expect the downstream players to also be amongst the first beneficiaries and in particular players with strong relationships in the German market which we expect to be particularly strong in the first half of 2010.

# Competitive position and investability benchmarking



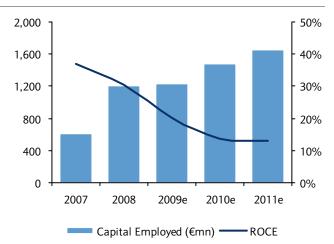
Source: Company data, Barclays Capital

## Sales and EBITDA



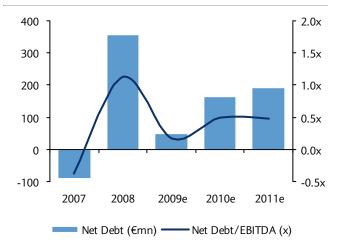
Source: Company data, Barclays Capital

# **CE and ROCE**



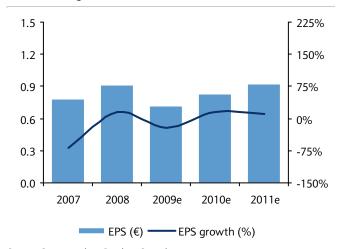
Source: Company data, Barclays Capital

# Net Debt to EBITDA



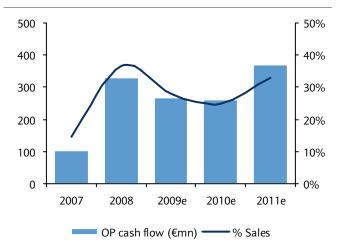
Source: Company data, Barclays Capital

# EPS and EPS growth



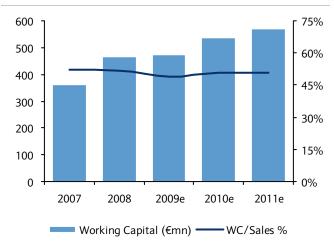
Source: Company data, Barclays Capital

# OP cash flow to sales



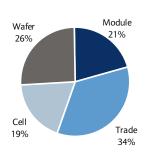
Source: Company data, Barclays Capital

# WC and WC/Sales



Source: Company data, Barclays Capital

## Divisional revenue breakdown (2008)

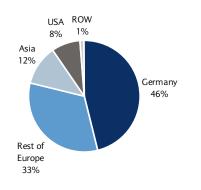


## Corporate history

SolarWorld was founded in Bonn in 1988 as Frank H. Asbeck Ingenieurbüro für Industrieanlagen. Until 1998, the company was engaged in projects to produce renewable energy. In 1998, these activities were transferred to the newly founded SolarWorld AG, which went public on 11 August 1999. SolarWorld is active in the following areas: trading and recycling of solar silicon, wafers, cells and modules. Important production facilities are located in Freiberg, Germany and Camerillo in the US. The company has been expanding its production capacity in Asia with a module assembly facility in South Korea. SolarWorld has established a joint venture with Evonick for the production of polysilicon. The joint venture has inaugurated its first production facility of 850MT in 2008. In addition, the group has another facility for the production of modules in Gällivare, Sweden. Sales offices are located in the US, Germany, Spain, South Africa and Asia.

Source: Company data, Barclays Capital

#### Geographical revenue breakdown (2008)



## Management

Frank H Asbeck, Chairman and CEO, holds a degree in agricultural engineering. He was involved in development projects in Africa before setting up SolarWorld AG. He is a founding member of the Green Party.

Philipp Koecke, CFO (Dipl.-Kfm. tech). After several years of experience in the finance and banking sector Mr. Koecke joined SolarWorld as CFO in May since 2002.

Mr. Boris Klebensberger, COO is a graduate engineer and holds a Master of Business Engineering. In charge since October 2001 of the corporate management for the operative business at the manufacturing units.

Website: www.SolarWorld.de

Source: Company data, Barclays Capital

# Shareholder structure

Mar	ket value (€1.8bn)	Float	75%
Тор	10 holders (% shares outstanding)		
1	ASBECK FRANK H		25.0%
2	DWS Investment GmbH		5.3%
3	BlackRock Investment Management (	(UK)	3.4%
4	Swisscanto Asset Management AG		2.5%
5	Fortis Investment Management		1.3%
6	Bank Sarasin & Cie. AG		1.1%
7	Norges Bank Investment Managemen	nt	0.9%
8	Pioneer Investments		0.8%
9	Union Investment Privatfonds GmbH		0.8%

Source: FactSet, Barclays Capital

## Accounting issues

In 2008, the company capitalised  $\in$ 7.7mn (2007:  $\in$ 0.5mn). Cash flow forecasts for the long term assume a growth rate of 2.5% (2007: 3.0%) with a discount rate of 9.4% (2007: 9.3%) to assess potential goodwill impairments. The company provides 0.25% of all module revenue to meet performance guarantees relating to products delivered. In addition, the company provides  $\in$ 2.6m for risks of litigation concerning possible claims for pending legal disputes.

#### M&A

2007: Sold 65% of module subsidiary GPV to Borevind AB.

2006: Acquired Shell Solar.

## Products and activity

Wafer: SolarWorld is a world-leading producer of both mono and multicrystaline solar wafers a thickness of less than  $200\mu m$ . The company has a well-balanced polysilicon sourcing strategy through traditional long-term contracts with leading suppliers and use of in-house recycled material. In addition, SolarWorld has started production of polysilicon in the third quarter of 2008. The company has established a joint venture (49%) with Evonick for the joint operation of a polysilicon facility (850MT capacity). The joint company, Solar Silicon is also testing the use of new raw materials from purified metallurgical silicon. The company is allocating approximately half of its wafer production to internal cell processing, the rest being sold to external customers in Europe, Asia and the US. The company typically enters into long-term contracts with pre-determined prices and volumes throughout the entire contract period. SolarWorld has a production capacity of 750MW in Freiberg that it intends to increase by 500MW in Hillsboro by end 2010.

Key competitors: Ersol, REC, PV Crystalox, Renesola, LDK, MEMC.

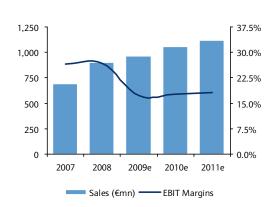
Cells and modules: Solarworld is producing cells and modules primarily targeting the German residential market. The company benefits from good brand recognition domestically and internationally with ASPs at a typical US\$ 15/20c/Wp premium over peers. The company has a vertical integration strategy and produces cells based which rely on in-house wafer procurement. The company has SolarWorld has increased its production capacity from 300MW at the end of 2008 to 650MW over the course of 2009. (160+40MW in Freiberg, 100+150MW in Hillsboro + 200MW in South Korea).

Key competitors: E-ton, REC, First Solar, Gintech, Motech, Sharp, Solarfun, Q-Cells, Phoenix Solar, Aleo Solar.

Kit/Systems SolarWorld distributes its solar modules and kits (integrated systems) to the wholesale and specialist trade. The company is following an internationalisation strategy with sales offices and production facilities in Europe, Asia and the US. In 2009, SolarWorld's core trading business markets were Germany, the US, South Korea and Italy.

Key competitors: Conergy, Solon, Phoenix Solar, Juwi, Centrosolar, EDF Energies Nouvelles

#### **Divisional forecasts**

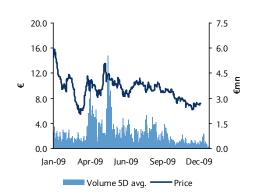


## Key issues

- There is increasing risk of delays, price and volume renegotiation of long-term contracts for the solar wafer division. Beyond pricing issues, maintaining high level of capacity utilisation is essential to the company's financial performance.
- The principal risks related to the cell and module activities concern the ability of SolarWorld to continue to compete at satisfying level of profitability against competition from lower cost manufacturing countries.
- Given the continuous low degree of certainty on end market demand and risks of tariff revision in Germany, the main issues facing SolarWorld's trading activities are the risks of oversupply, inventory building and pricing pressures going in 2010.

Source: Company data, Barclays Capital

## Share price performance



## Solon (3-UW, €6.5 PT)

Solon's business is not likely to experience the level of distress of 2009, though we remain cautious on the full year challenges facing the company. Former investments in the start up polysilicon businesses have now been closed with resulting losses of the investments made to date of €52mn. Working capital over the course of the year remains at 42.4% of sales, against 46.7% in 2008. This sustained high level we believe may deteriorate further over the course of this year, as prepayment and funding terms continue to remain challenging. As strength in the German market gathers pace in the first half of the year, this may increase working capital and cash flow intensity, and limit the level of growth that the company is able to participate in. To resolve some of these issues, we believe improving the strength of the balance sheet, reducing working capital and generating free cash flow to be as important as achieving sustainable operating margins.

Source: FactSet, Barclays Capital

## Historical valuation (EV/EBIT)

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**Bulls and Bears** 

#### Bulls

- Favourable competitive position in solar PV growth markets: Italy, Germany, the US, Greece, France and the Czech Republic
- Signs of greater appetite for large scale projects in 2010 as evidenced by framework agreements with PG&E and Statkraft
- Cost-reduction efforts through the development of module and system technologies.

#### Bears

- Risks of inventory build given the project nature of Solon business coupled with risks of writedowns should adverse pricing trends continues
- Turnkey project carries some execution as well as counterparty risk as evidenced by late payments for Spanish projects commissioned in 2008
- Relative balance sheet weakness and high working capital profile.

Source: Bloomberg, FactSet, Barclays Capital

# Financial benchmarking



# Earnings estimate and company guidance

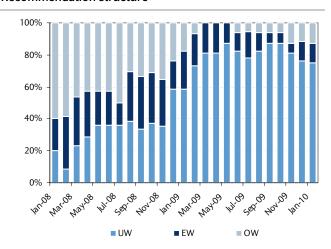
FY Dec, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	503.1	815.1	408.3	483.8	646.7
EBIT (mn)	35.2	57.7	-120.1	2.8	25.6
Margin (%)	7.0%	7.1%	-29.4%	0.6%	4.0%
EBITDA (mn)	43.3	72.6	-96.3	25.0	46.7
EPS	3.65	2.61	-10.12	-0.85	0.21
Consensus					
Revenue (mn)			377.8	546.1	710.0
EBIT (mn)			-79.5	4.9	31.7
EBITDA (mn)			-57.3	24.1	54.1
EPS (€)			-11.25	-0.92	0.74

Guidance: na

Source: FactSet, Barclays Capital

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: FactSet, Barclays Capital

## Divisional/group forecast

FY Dec, €mn	2008	2009e	2010e	2011e
Sales				
Modules	451.1	292.2	305.0	392.2
Systems	448.5	161.5	232.5	326.4
EBIT margin (%)				
Modules	4.7%	-18.2%	4.4%	6.1%
Systems	13.2%	-7.4%	4.1%	5.1%

Calendar

■ 31 Mar 2010: FY 2009 Results

■ 12 May 2010: Q1 2010 Results

■ 16 Jun 2010: Annual Shareholders' Meeting

■ 18 Aug 2010: Q2 2010 Results

■ 12 Nov 2010: Q3 2010 Results

■ 18 Nov 2010: Annual Analyst Conference

Source: Company data, Barclays Capital

#### Sector view: 1- Positive

- The solar sector was affected in 2009 by a sudden shift in supply demand driven by regulatory changes in Spain and financing constraint. Industry fundamentals have significantly improved with financing availability and demand showing some signs of elasticity from lower installation costs post renegotiations across the supply chain.
- The downstream segment has been the first to suffer from declining demand which put significant pressure on working capital and liquidity. With improving demand and pricing visibility we expect the downstream players to also be amongst the first beneficiaries and in particular players with strong relationships in the German market which we expect to be particularly strong in the first half of 2010.

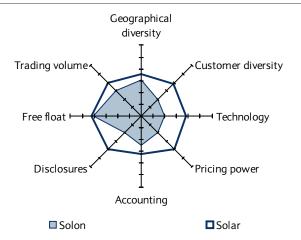
Source: Company data, Barclays Capital

# Price target sensitivity

€	Long term sales growth								
		1.0%	1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	
	3.5%	14.7	10.9	7.0	3.1	-0.8	-4.7	-8.6	
sales ו	4.0%	15.2	11.5	7.8	4.2	0.5	-3.2	-6.9	
turn or	4.5%	15.6	12.2	8.7	5.3	1.8	-1.6	-5.1	
Long term return on sales	5.0%	16.1	12.9	9.6	6.5	3.2	-0.1	-3.3	
Long to	5.5%	16.5	13.5	10.5	7.5	4.5	1.5	-1.5	
	6.0%	17.0	14.2	11.4	8.6	5.9	3.1	0.3	
	6.5%	17.4	14.9	12.3	9.8	7.2	4.6	2.1	

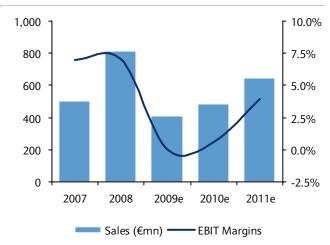
Source: Company data, Barclays Capital

# Competitive position and investability benchmarking



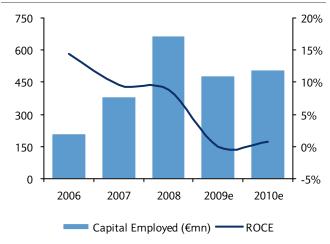
Source: Company data, Barclays Capital

## Sales and EBIT



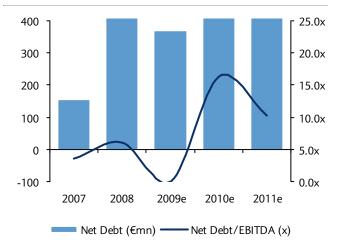
Source: Company data, Barclays Capital

# **CE and ROCE**



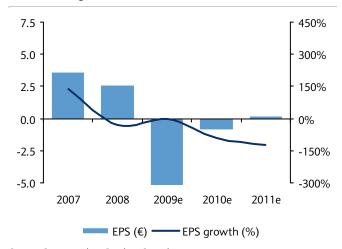
Source: Company data, Barclays Capital

# Net Debt to EBITDA



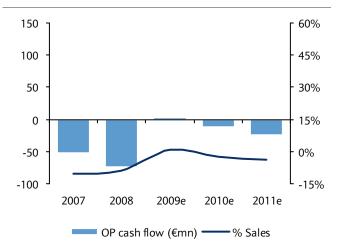
Source: Company data, Barclays Capital

# EPS and EPS growth



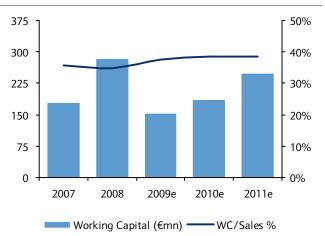
Source: Company data, Barclays Capital

# OP cash flow to sales



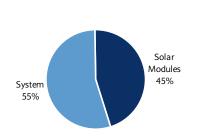
Source: Company data, Barclays Capital

# WC and WC/Sales



Source: Company data, Barclays Capital

## Divisional revenue breakdown (2008)

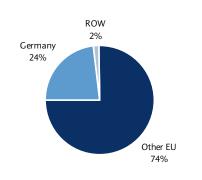


## Corporate history

Solon SE, formerly Solon AG fuer Solartechnik (SOLON), is a Germany-based holding company engaged in the solar technology sector established on 27 November 1996. With operations in Berlin-Kreuzberg where the first Solon modules were produced, the company was publicly listed on the Berlin Stock Exchange in 1998. It continued to expand, participating between 1999 and 2001 in a number of large projects involving building integrated photovoltaics in Berlin. In 2001, Solon relocated to Neujolln in order to improve its production efficiency. In 2004, it established an additional production facility in Greifswald, which increased Solon's total capacity to 90MW. Solon's shares were listed on the TecDAX in 2006. Solon has continuously expanded its global footprint, production capacity and geographic exposure and is now operating through ten subsidiaries in the Europe and the United States. In 2008, the Company launched a single-axis photovoltaic system, and acquired a majority stake in Estelux a polysilicon start up company based in Italy.

Source: Company data, Barclays Capital

#### Geographical revenue breakdown (2008)



## Management

## Thomas Krupke, CEO and Chairman of the Management Board

Mr Krupke joined Solon in 2002, held Chief Financial position between 2004 and 2006 and has been CEO and Chairman of the Management board since August 2006.

#### Simone Prufer, CFO

Simone Prufer joined Solon in 2006 and became CFO and member of the executive board in 2008.

#### Dr. Lars Podlowski, CTO

Dr. Lars Podlowski joined Solon in 200 and has been assuming CTO position since 2005.

Website: www.solon.com

Source: Company data, Barclays Capital

# Shareholder structure

Mar	ket value (€95mn)	Float	61%						
Тор	Top 10 holders (% shares outstanding)								
1	STROEHER IMMO		36.1%						
2	DWS Investment GmbH		3.0%						
3	VOIGT ALEXANDER		2.6%						
4	Suravenir SA		1.6%						
5	Claymore Securities, Inc.		1.6%						
6	Norges Bank Investment Management	t	1.5%						
7	Swisscanto Asset Management AG		1.2%						
8	Dimensional Fund Advisors, Inc.		1.0%						
9	INVESCO PowerShares Capital		0.5%						
10	KRUPKE THOMAS		0.5%						

## Accounting issues

Capitalised development costs are written off between 3 and 7 years. The company uses discount rates of between 9.8% and 11.8% for assessing impairments. During the year, it capitalised  $\[ \in \]$ 4.2mn which primarily relates to testing units and building components. Solon carried  $\[ \in \]$ 18.1mn of goodwill on the balance sheet at the end of 2008. The company carries  $\[ \in \]$ 14.7mn to meet future warranty costs. Warranties typically relate to a period of 20-25 years.

#### M&A

Dec 2008: completed acquisition of Estelux (Italian polysilicon start-up).

Jun 2008: acquired 16% stake in SpectraWatt (U.S solar cells start-up).

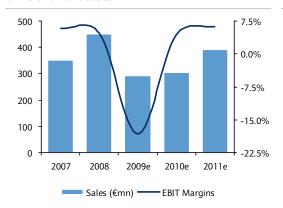
Source: FactSet, Barclays Capital

#### Components

Solon components segment focuses on the development, production and after sales services of solar PV modules and inverters. The company produces mono and multicrystalline modules with outputs of 130 to 280Wp and efficiency of up to 14.8%. Solon's products include a 25-year production output guarantee (>80% of declared output power). Solon has module facilities in Germany, Italy, Austria and the US and a production capacity of 450MWp. In order to secure long-term cell and silicon procurements, Solon finalised the acquisition of Estelux (Italy) in 2008, which aims to establish the production of polysilicon with an initial capacity of 4,000MT by the end of 2010. The company targets wholesalers specialising in solar technology and installation companies. In addition, Solon offers high quality off- and grid-connected systems inverters via its subsidiary SOLON Inverters, which is located in Switzerland. The company has been adversely impacted by pricing pressure from Asian suppliers in 2009 which led to low capacity utilisation and the implementation of a restructuring program which the company anticipate to yield to €15mn annual savings in 2010.

Key competitors: Phoenix Solar, Solarworld, Schott Solar, Yingli, Trina, Solarwatt, Sunpower, Suntech, Sunways

#### Divisional forecasts



#### Key issues

- Pricing: German tariffs revision beyond built in regression rate could materially impact the company's ability to generate profit on equipment delivery in the German market as volume weakness would most likely lead to further pressure on prices and increased competition.
- Warranty: Solon makes a voluntary commitment that the modules sold will generate at least 90% of their rated output for 10 years and at least 80% for 25 years. Despite its long track record, a low performance could materially affect its financial results.

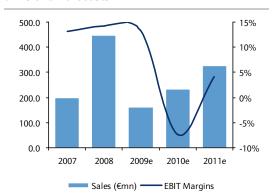
Source: Company data, Barclays Capital

## System technology

Solon is experienced in developing power plant solutions and realising turnkey solar plant projects. The company's service offer includes planning, construction, installation to start-up and operation. Solon introduced its first solar photovoltaic power plant product in 2004, and has been focusing on the development of tracking system solutions. Solon developed single and dual-axis tracking-system solutions, which, depending on project location, can achieve 40% more output than a fixed-tilt solar system. Signs of greater appetite for large projects materialized over the course of 2009 for deliveries in 2010 as evidenced by frameworks agreements signed with PG&E and Statkraft.

Key competitors: Conergy, Phoenix Solar, Juwi, Centrosolar, EDF Energies Nouvelles

#### Divisional forecasts

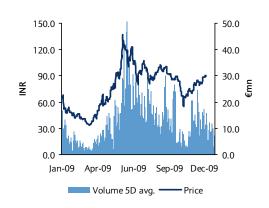


Source: Company data, Barclays Capital

# Key issues

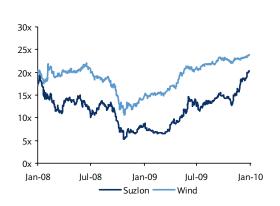
- Project risk: Despite Solon's experience in solar project management, execution risks remain important, especially for turnkey projects. This effect is accentuated by the increasing share of Solon's revenues derived from the system and technology division.
- Market conditions: Solon has to cope with more pronounced competition with an increasing number of upstream players in the supply chain looking to enter the segment to secure a channel to market for their product and high degree change in large project geographical demand profile from year to year.

#### Share price performance



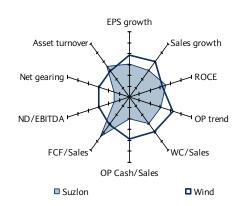
Source: FactSet, Barclays Capital

## Historical valuation (EV/EBIT)



Source: Bloomberg, FactSet, Barclays Capital

# Financial benchmarking



Source: FactSet, Barclays Capital

## Suzlon (1-OW, INR 125 PT)

Suzlon's dominance in its domestic market has not yet been matched by success in international markets though the company is improving its reputation with some major wind warm developers beginning to see value through the introduction of new turbine vendors to reduce perceived technology risk. The major focus for the company over the course of the year is careful working capital management, increasing order intake (both domestic and international), technology development for a new international model to replace the S88 turbine and integrating the Repower business into the group structure once the company is fully acquired. Over the course of the year, we see scope for Suzlon to significantly leverage its expansion in markets in the United States and China, together with a strengthening of its position in its domestic market. With respect to international competition, we believe Chinese and other Asian competitors are likely to focus on their domestic markets, providing Suzlon at least a two-year head start in its international operations before competing against its Asia-based peers. In 2009, Suzlon significantly reduced its debt obligations through a renegotiation of its convertible bond and through the part sale of its stake in Hansen. Overall, this has reduced net debt from INR 125,250mn to INR 108,250mn.

#### **Bulls and Bears**

#### Bulls

- Supply chain integration provides scope for cost reductions
- Potential synergies subject to the acquisition of the balance stake in REpower
- Customer relationships and presence in high growth market

#### **Bears**

- The company maintains significantly higher working capital compared to its peers such as Vestas and Gamesa
- The company enjoys one of the weakest balance sheet among international wind turbine manufacturers
- Despite completion of remediation work on the S 88, Suzlon may need multi-year turbine performance to re-establish its brand

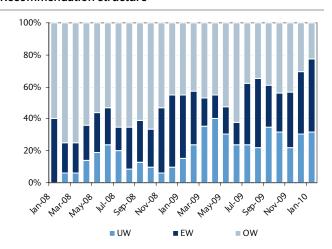
# Earnings estimate and company guidance

FY Mar, INR	2007	2008	2009e	2010e	2011e
Revenue (mn)	79,857.3	136,794.3	260,817.0	208,203.1	248,608.6
EBIT (mn)	12,446.0	19,645.5	26,672.2	13,247.1	23,164.5
Margin (%)	15.6%	14.4%	10.2%	6.4%	9.3%
EBITDA (mn)	9,536.9	14,164.0	22,539.1	32,403.6	20,388.8
EPS	5.77	7.88	7.28	0.79	6.19
Consensus					
Revenue (mn)			230,972.0	264,093.7	295,680.3
EBIT (mn)			15,069.7	21,523.2	25,116.6
EBITDA (mn)			20,032.3	26,237.1	32,820.3
EPS (INR)			0.53	4.37	8.06

Guidance: Deliveries of 1,900-2,100MW of projects in 2009/2010.

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: FactSet, Barclays Capital

## Divisional/group forecast

FY Mar, INR mn	2009	2010e	2011e	2012e
Sales				
WTG Business	158,970	116,663	141,454	157,792
Repower		91,269	106,785	121,735
Components	172	271	369	543
Other items	361	0	0	0
EBIT margin (%)				
WTG Business	12.1%	6.1%	11.0%	11.0%
Repower		6.7%	6.5%	7.1%
Components	-25.1%	7.5%	7.5%	7.5%
Other items	0.0%	na	na	na

Source: Company data, Barclays Capital

# Price target sensitivity

INR	Long term sales growth								
		1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%	
	10.5%	133.9	129.1	124.3	119.5	114.7	109.9	105.1	
Long term return on sales	11.0%	134.9	130.4	125.9	121.4	116.9	112.4	107.9	
turn or	11.5%	135.8	131.6	127.4	123.2	119.1	114.9	110.7	
erm ref	12.0%	136.7	132.9	129.0	125.0	121.2	117.4	113.5	
Long te	12.5%	137.7	134.1	130.5	127.0	123.4	119.8	116.3	
	13.0%	138.6	135.3	132.1	128.8	125.6	122.3	119.1	
	13.5%	139.5	136.6	133.6	130.7	127.7	124.8	121.8	

Source: Company data, Barclays Capital

## Calendar

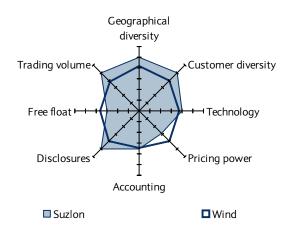
■ Results date not yet available

Source: Company data, Barclays Capital

#### Sector view: 1-Positive

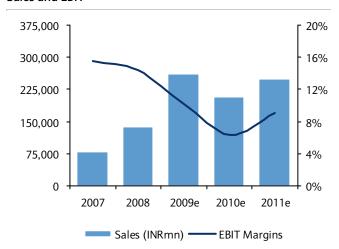
- Despite an upward trend in financing costs over the last 18 months, the outlook for project IRR remained stable to positive driven by a substantial reduction in transportation and balance of system costs as well as commodity prices decline passed through indexed turbine contracts.
- Lead times significantly reduced over the past twelve months which had a negative impact on prices for unbooked capacities. Due to finance ability and technology limitations, we are not concerned by the emergence of Chinese competition on the medium term. With financing improving and incentive to complete projects in the next two years in major markets, we believe turbine manufacturers and tier 1 supply chain players will benefit from a positive order momentum over the next 12-18 months.

# Competitive position and investability benchmarking



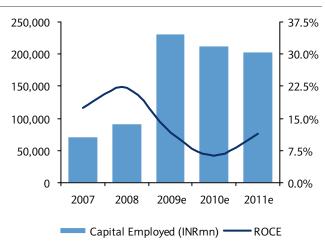
Source: Company data, Barclays Capital

#### Sales and EBIT



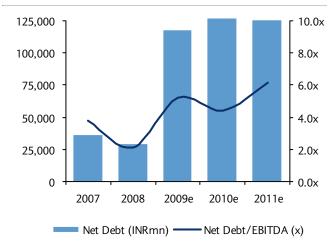
Source: Company data, Barclays Capital

# **CE and ROCE**



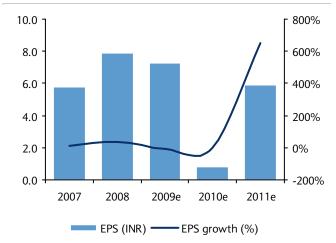
Source: Company data, Barclays Capital

# Net Debt to EBITDA



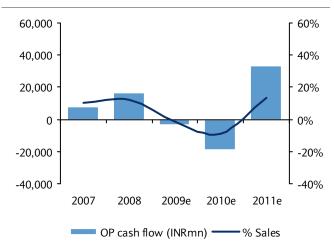
Source: Company data, Barclays Capital

## EPS and EPS growth



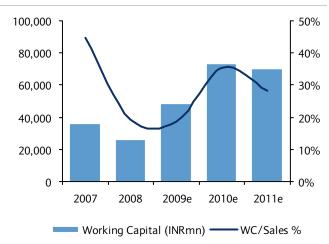
Source: Company data, Barclays Capital

# OP cash flow to sales



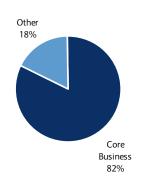
Source: Company data, Barclays Capital

# WC and WC/Sales



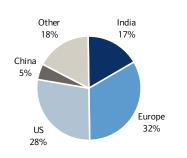
Source: Company data, Barclays Capital

## Divisional revenue breakdown (2008)



Source: Company data, Barclays Capital

# Geographical revenue breakdown (2008)



## Corporate history

Suzlon was established in 1995 when it set up a 3MW wind farm in the Indian state of Gujarat. The company was originally a textile manufacturing unit which had set up wind turbines for captive generation. Sensing an opportunity, its owner, Mr Tulsi Tanti, sought to acquire basic technology and expertise to set up Suzlon Energy Limited, India's first wind turbine manufacturing company. The company then moved beyond wind turbine manufacturing and began providing end to end solutions facilitating wind farm construction and commissioning. In 2006, Suzlon also began consolidating its supply chain linkages. It acquired a majority stake in Hansen Transmissions, a leading gearbox manufacturer, enabling integrated R&D into wind turbine design. In addition, Suzlon has built a majority stake position in REpower over the course of 2008 and 2009 in order to gain access to the European market and key technological know how into multi megawatt turbine design. As part of a major capital restructuring plan the company announced in 2009 the negotiation of a comprehensive refinancing programme aimed at acquiring the balance stake of Repower which include the divestment of its strategic stake in Hansen.

## Management

Tulsi R Tanti: Chairman and Managing director

Toine Van Megen: CEO Sumant Sinha: COO Kirti Vagadia: CFO Website: www.suzlon.com

Source: Company data, Barclays Capital

# Shareholder structure

Mai	ket value (€2.1bn)	Float	47%
Тор	10 holders (% shares outstanding)		
1	Tanti Holdings Ltd.		8.4%
2	TANTI GIRISH R		7.5%
3	TANTI LINA J		4.5%
4	TANTI SANGITA V		4.5%
5	TANTI GITA T		4.1%
6	RANCHHODBHAI VINOD FAMILY		4.0%
7	TANTI PRANAV T		3.8%
8	TANTI TULSI R		3.4%
9	RANCHHODBHAI RAMJIBHAI FAMILY		2.7%
10	TANTI BRIJ J		2.7%

## Accounting issues

Sales of individual turbines on supply only contracts are recognised when the risks and reward of ownership has been transferred to the buyer. Fixed price contracts which involve turnkey and supply and install projects are recognised on percentage of completion accounting. Cash flow amounting to Rs 3.76 Crores has not been audited and the audit opinion is based solely on the management certified accounts. The company has not provided of a proportionate premium of the US\$500m zero coupon convertible bonds due 2012 which represents 226.1 Crores which is considered by the group at a contingent liability.

#### M&A

2008: REpower AG (66% in 2008 - 90% in 2009)

2006: Majority stake in Hansen Transmissions (71%) reduced to 26% in 2009

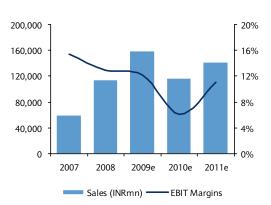
Source: FactSet, Barclays Capital

#### Products and activities

Suzlon is primarily involved in manufacturing wind turbine generators and associated components. It is also involved in wind farm infrastructure development, such as the construction of access roads, power lines and grid interconnection. In addition, it also provides services such as installation, commissioning and maintenance of wind farms. The company currently has a manufacturing capacity of 2700MW. It intends to expand this over the next year by another 3000MW to reach a total capacity of 5700MW in line with end market development. Its product portfolio consists of low-to-medium capacity turbines ranging from 350kW to 2.1MW. The company has conducted an ambitious international expansion plans in the U.S and Europe with the Indian market only representing 18% of Suzlon sales in 2008. Over the course of 2008 and 2009, Suzlon has built a 90% stake in REpower in order to enter the German, French and UK markets. Suzlon also benefits from a complementary product portfolio offered by REpower, including offshore and multi-megawatt turbines. In addition, REpower also brings in strong design and development know-how. REpower currently has a manufacturing capacity of 1250MW with near-term plans to expand to 1700MW. The product portfolio primarily includes medium-to-high capacity turbines ranging from 1.5MW to 5MW. Suzlon also holds a 61.3% stake in Hansen ensure gearbox supply which is a major bottleneck in the wind supply chain. In addition, Suzlon has also developed a strong components business, which produces forging, foundry and machining for turbines. As part of a major capital restructuring plan the company announced in 2009 the negotiation of a comprehensive refinancing programme aimed at acquiring the balance stake of Repower which include the divestment of its strategic stake in Hansen

Key competitors: Vestas, Gamesa, Enercon, GE, Siemens, Nordex, Goldwind, Sinovel, Dongfang, Clipper

#### Divisional forecasts



## Key issues

- The company has significant exposure to the Indian and Chinese markets. These are short-term markets with orders booked on a rolling basis and entails limited demand visibility for the company. In addition, as a result of relatively more attractive contract terms, the company has historically operated at significantly above average working capital.
- Suzlon has faced a number of quality issues. Its turbines in the US suffered from blade cracks which remediation work has been completed in 2009. In addition, some of Suzlon's large customers in India have reported that turbines do not operate at quoted availability ratings.
- Order book and intake remain below industry standards. We believe this reflects the improved availability of turbines from Tier I suppliers, quality issues Suzlon experienced internationally, unfavourable end market development in India in 2009 and relative balance weakness among international wind turbine manufacturers.

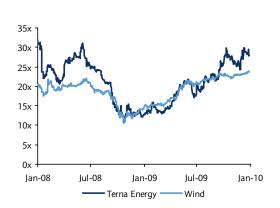
Source: Company data, Barclays Capital

#### Share price performance



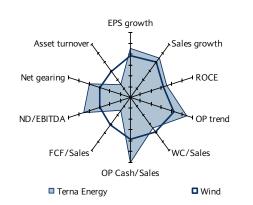
Source: FactSet, Barclays Capital

## Historical valuation (EV/EBIT)



Source: Bloomberg, FactSet, Barclays Capital

# Financial benchmarking



Source: FactSet, Barclays Capital

## Terna Energy (2-EW, €5.75 PT)

Terna represents in our view an early stage wind farm developer with a significant amount of potential through local operation in the Greek market. However, the track record of the company has been impacted by a variety of reasons, with its earlier target of 450MW by 2009, still to be achieved. For 2010, the following issues are the main areas of focus − first the impact of the credit issues around the Greek government (a move to BBB+ from A- by Fitch credit agency in December 2009), second the general funding environment for wind projects, third the progress towards securing permitting of new sites which has been delayed due to a change in the Greek government and finally bringing pipeline assets into operation. To mitigate these risks, we forecast the company to have €295.2mn of cash at the end of 2010, assuming 242.5MW of operational assets come into service. Given the longer-term outlook for early stage wind farm developers, we believe strategic partnerships with turbine vendors and finance providers is likely to become more important to segment and help sustain barriers to entry into the market.

#### **Bulls and Bears**

#### Bulls

- Competitive position in the Greek market places Terna Energy as a potential primary beneficiary of positive regulatory outlook
- Engineering experience strengthened by support of the parent company GEK
   Terna (third-largest Greek construction company)
- €130mn cash at hand eliminates financing risks towards the achievement of 2010 installed capacity targets.

#### **Bears**

- Installed capacity targets remain conditioned to the timing of construction licenses issuance from the Greek authorities
- Lower level of activity expected for the third-party construction business in 2009 and 2010, according to guidance
- Working capital implications of turbine for 2009 delivery and for which the company has not yet started construction

# Earnings estimate and company guidance

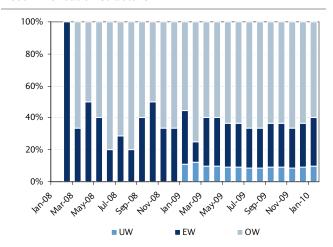
FY Dec, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	60.2	73.7	70.0	81.3	126.3
EBIT (mn)	20.6	21.5	22.1	27.4	49.3
Margin (%)	34.2%	29.1%	31.6%	33.7%	39.0%
EBITDA (mn)	23.2	25.1	25.6	31.5	55.6
EPS	0.13	0.18	0.17	0.18	0.31
Consensus					
Revenue (mn)			69.4	83.7	122.9
EBIT (mn)			23.2	32.0	56.1
EBITDA (mn)			30.0	41.6	72.7
EPS (€)			0.19	0.21	0.33

#### Guidance:

■ Target to increase Renewable generating capacity to 450MW by the end of 2010 and 1.2GW by the end of 2012 (of which 1.2GW in Greece (1GW wind 200MW hydro) and 400MW wind in International markets)

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: FactSet, Barclays Capital

## Divisional/group forecast

FY Dec, € mn	2008	2009e	2010e	2011e
Sales				
Construction	48.4	39.2	40.2	42.2
RES	25.3	30.8	41.1	84.2
EBIT margin (%)				
Construction	19.4%	18.7%	18.9%	19.2%
RES	49.4%	49.6%	49.6%	50.1%

Source: Company data, Barclays Capital

# Price target sensitivity

€		Long term sales growth						
		2.5%	3.0%	3.5%	4.0%	4.5%	5.0%	5.5%
	40.8%	5.46	5.53	5.59	5.66	5.72	5.79	5.86
Long term return on sales	41.3%	5.48	5.55	5.62	5.69	5.76	5.83	5.90
turn or	41.8%	5.50	5.57	5.64	5.72	5.79	5.86	5.94
erm re	42.3%	5.52	5.59	5.67	5.75	5.82	5.90	5.98
Long te	42.8%	5.53	5.62	5.70	5.78	5.86	5.94	6.02
	43.3%	5.55	5.64	5.72	5.81	5.89	5.98	6.06
	43.8%	5.57	5.66	5.75	5.84	5.92	6.01	6.10

Source: Company data, Barclays Capital

#### Calendar

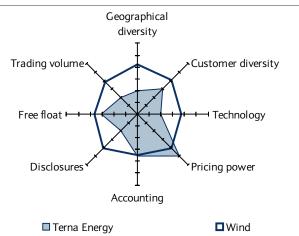
Results date not yet available

Source: Company data, Barclays Capital

#### Sector view: 1- Positive

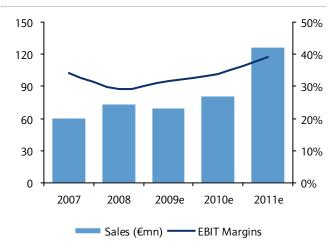
- Despite an upward trend in financing costs over the last 18 months, the outlook for project IRR remained stable to positive driven by a substantial reduction in transportation and balance of system costs as well as commodity prices decline passed through indexed turbine contracts.
- Wind operators without a demonstrable operational track record and liquidity constraints experienced an extremely challenging funding environment in the last twelve months. Though the appetite for financing quality projects improved, due diligences from banks on project, counterparty, technology and warranty risks have significantly lengthened financing negotiations. We are positive on tier 1 operators which offer balance sheet guarantees, track record, recurring cash flow base and diversified project portfolios.

# Competitive position and investability benchmarking



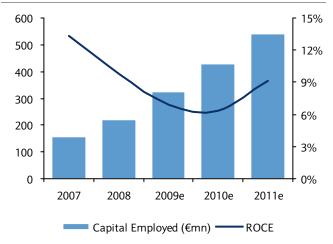
Source: Company data, Barclays Capital

## Sales and EBIT



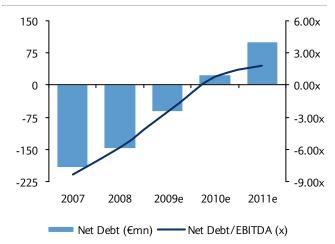
Source: Company data, Barclays Capital

# **CE and ROCE**



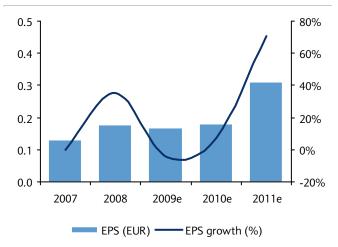
Source: Company data, Barclays Capital

# Net Debt to EBITDA



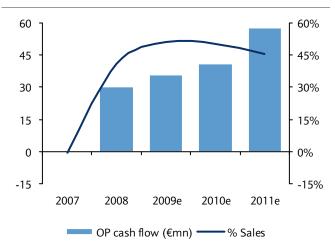
Source: Company data, Barclays Capital

# EPS and EPS growth



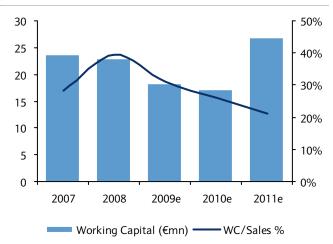
Source: Company data, Barclays Capital

# OP cash flow to sales



Source: Company data, Barclays Capital

# WC and WC/Sales



Source: Company data, Barclays Capital

## Divisional revenue breakdown (2008)

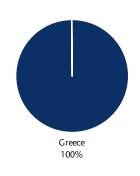
# Electricity from RES 34% Construction 66%

## Corporate history

Terna Energy was incorporated in 1997 to undertake the development of renewable energy source based generation activities. The company focused on developing wind power projects, and began the process of locating and measuring wind regimes for suitable sites throughout Greece. The first wind park entered into operation in 2000, and in 2004, the company began to explore opportunities to expand its geographical footprint in the Balkans, central Europe and China. In addition, Terna Energy started the diversification of its RES generation activities with Small Hydro, Solar photovoltaic and Biomass projects in Greece.

Source: Company data, Barclays Capital

## Geographical revenue breakdown (2008)



## Management

Emmanuel Maragoudakis, Vice-Chairman and Chief Executive: Mr. Maragoudakis holds a degree in Mechanical Engineering from Newcastle University and a post graduate degree in production management and manufacturing technology from Strathclyde University. He joined the group in 1997 after having occupied positions in the construction and engineering industry.

Panagiotis Pothos, Chief Financial Officer: Mr. Pothos is a graduate of the Economic University of Piraeus. He joined the group in 1994, after having occupied chief financial officer positions in industrial and project companies.

Website: www.terna-energy.gr

Source: Company data, Barclays Capital

# Shareholder structure

Mar	ket value (€690mn) Float	30%
Тор	10 holders (% shares outstanding)	
1	GEK Terna	47.6%
2	PERISTERIS GEORGIOS T	22.5%
3	DWS Investment GmbH	3.0%
4	Alpha Asset Management A.E.D.A.K	1.8%
5	BlackRock Investment Management (UK)	1.7%
6	UBS Global Asset Management Switzerland	1.5%
7	Swisscanto Asset Management AG	1.5%
8	UBS Global Asset Management (Japan) Ltd.	0.8%
9	Bank Sarasin & Cie. AG	0.5%
10	Pictet Asset Management SA	0.5%

Source: FactSet, Barclays Capital

# **Accounting issues**

The company uses percentage of completion accounting for construction projects. The company provides €0.7mn for environmental rehabilitation.

## M&A

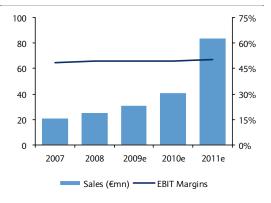
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## Sale of electricity

Terna Energy has the largest investment plan of Renewable Energy Sources under development in Greece and continues to view this region as its main area of focus. The company targets to increase its capacity to 1.6GW by the end of 2012. Terna Energy benefits from a favourable regulatory system in Greece. The regulatory regime provided a feed in tariff of €80/MWh which annually adjusted on regulated electricity prices and inflation Terna also benefited from a 30% capital subsidy from the central government for wind projects. The 30% capital incentive is financed at 75% by subsidies received from the EU for infrastructure investment in Greece. To complement its growth strategy outside Greece, the company is currently investigating a number of options to enter new markets at early stages of development in Eastern Europe. In addition to its Greenfield investment, Terna Energy does not exclude the possibility to acquire developing portfolios, licences or small local developers should attractive opportunities emerge. The company has c230MW of projects operating or under construction with over 2GW of projects under development of which 651MW received production license for which the company has applied for construction licenses. Terna is primarily focusing on wind power and expects to benefit from favorable wind resources in Greece with long-term load factor of 30%

Main competitors: Iberdrola Renovables, EDF Energies Nouvelles, EDP Renovaveis

## **Divisional forecasts**



## Key issues

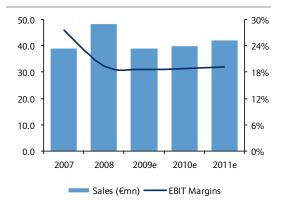
- Permitting process: The new planning law introduced in December 2008 has a positive impact on the development of wind projects in Greece. However, the new licensing process lead to short-term delays, as previously obtained licenses are reassessed in the light of the new regulatory framework. The company, in order to meet its 2010 target is required to secure an additional 200MW of construction licenses (631MW production licenses obtained) under the new planning law. Any delays beyond the first quarter of 2010 could present the company from reaching its target.
- Working capital: The company has secured 200MW of additional turbines for deliveries in 2010. Though we have no concerns on the company liquidity position, we draw attention to the impact any further delays would have on working capital.

Source: Company data, Barclays Capital

## Third party construction

Besides building its own Renewable energy project, Terna Energy undertakes and constructs specialised public and private works. The company has particular expertise in the construction of electromechanical works, railway and energy projects. It has been awarded the 6th grade construction certificate, permitting participation in the government's tenders up to €40mn. The company's order backlog has gradually decreased over the course of the 2007-2009 period in line with the acceleration of the construction of wind farms for the group.

## **Divisional forecasts**



Source: Company data, Barclays Capital

## Key issues

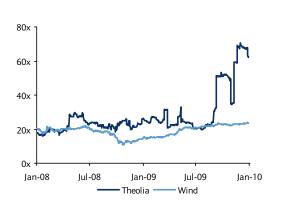
■ Third-party construction activities remain conditioned to the macro-economic environment and conditions in Greece. In 2009, this activity however proved relatively resilient to the economic conditions, due to the important order backlog of specialised, predominately electromechanical, profitable projects. Given Terna Energy has allocated more resources to the construction of its own RES project as opposed to using third parties coupled with a slight decrease of order backlog expected for the full year, we forecast a contraction of activity for the division in 2010.

## Share price performance



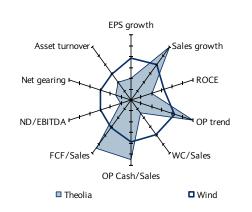
Source: FactSet, Barclays Capital

## Historical valuation (EV/EBIT)



Source: Bloomberg, FactSet, Barclays Capital

# Financial benchmarking



Source: FactSet, Barclays Capital

## Theolia (2-EW, €2.75 PT)

Theolia is one of the weakest companies in our coverage universe. While the company has averted near-term cash flow issues and now has a starting point for the renegotiation of its convertible bond (primarily an extension with an intention to raise additional equity), there remains uncertainty, in our view, around the company's ability to successfully execute this plan. Once the renegotiations have been completed, we believe attention will likely turn to the strategy for Theolia and the outlook for its stock. We believe the company is best placed to focus on wind farm development in one or two core markets where management believes their competency can deliver the best operating results. We think that obtaining financing, turbines and permits remain the greatest challenge for the company. We remain 2-Equal Weight on the name to reflect our view that once ongoing renegotiation for the convertible are completed, market focus is likely to be directed away from potential balance sheet risks. However, we note our price target of €2.75, which reflects a 23.4% discount to the closing price for 11 January 2010 and reflects, in our view, risk around share price dilution once the convertible renegotiation exercise is completed. We expect the stock to remain volatile over the course of this year.

## **Bulls and Bears**

#### Bulls

- Management focus on addressing liquidity and balance sheet concerns while aligning strategy to available financial resources
- Progress on the divestment of non-core assets and on the 200MW asset disposal announced in 2009
- Significant project pipeline under development with attractive position in Germany, France and Italy

#### **Bears**

- The company remains undercapitalized which limits project financing availabilities for the development of future projects
- The possibility of bondholders requesting early redemption represents a material challenge for the company
- The underlying performance of the company net of exceptional and one-off effects remain below industry average

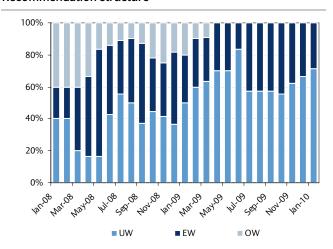
# Earnings estimate and company guidance

FY Dec, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	306.5	70.0	305.4	233.5	234.8
EBIT (mn)	17.8	-196.5	10.2	12.0	11.9
Margin (%)	5.8%	-280.8%	3.4%	5.1%	5.1%
EBITDA (mn)	36.1	-140.1	24.8	24.2	25.2
EPS	0.20	-5.88	-0.13	-0.23	-0.15
Consensus					
Revenue (mn)			286.4	241.1	311.8
EBIT (mn)			9.8	17.1	23.7
EBITDA (mn)			44.2	42.6	56.0
EPS (€)			-0.41	-0.24	-0.23

Guidance: na

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: FactSet, Barclays Capital

## Divisional/group forecast

FY Dec, € mn	2008	2009e	2010e	2011e
Sales				
Sale of project	-18.2	214.6	145.0	145.0
Electricity	99.0	89.2	88.5	89.8
Non wind	-10.8	1.6	0.0	0.0
EBIT margin (%)				
Sale of project	na	1.3%	4.9%	5.0%
Electricity	-30.5%	6.8%	5.5%	5.1%
Non wind	50.1%	-167.1%	0.0%	0.0%

Source: Company data, Barclays Capital

# Price target sensitivity

€	Long term sales growth								
		1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%	
	23.5%	1.68	1.92	2.15	2.39	2.62	2.86	3.09	
Long term return on sales	24.0%	1.74	2.00	2.26	2.51	2.77	3.02	3.28	
turn or	24.5%	1.80	2.08	2.36	2.64	2.91	3.19	3.47	
erm ref	25.0%	1.87	2.16	2.46	2.75	3.06	3.35	3.65	
Long te	25.5%	1.93	2.25	2.57	2.88	3.20	3.52	3.84	
_	26.0%	1.99	2.33	2.67	3.01	3.35	3.69	4.02	
	26.5%	2.05	2.41	2.77	3.13	3.49	3.85	4.21	

Source: Company data, Barclays Capital

#### Calendar

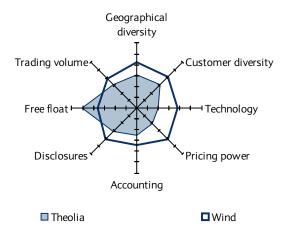
- 11 Feb 2010: FY 2009 Revenue (after market)
- 30 Mar 2010: FY 2009 full Results (after market)

Source: Company data, Barclays Capital

## Sector view: 1- Positive

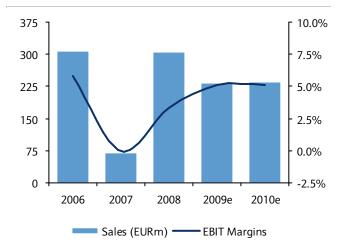
- Despite an upward trend in financing costs over the last 18 months, the outlook for project IRR remained stable to positive driven by a substantial reduction in transportation and balance of system costs as well as commodity prices decline passed through indexed turbine contracts.
- Wind operators without a demonstrable operational track record and liquidity constraints experienced an extremely challenging funding environment in the last twelve months. Though the appetite for financing quality projects improved, due diligences from banks on project, counterparty, technology and warranty risks have significantly lengthened financing negotiations. We are positive on tier 1 operators which offer balance sheet guarantees, track record, recurring cash flow base and diversified project portfolios.

# Competitive position and investability benchmarking



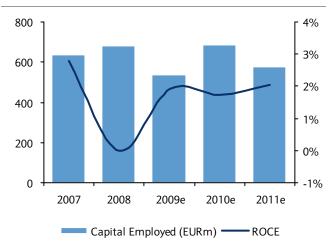
Source: Company data, Barclays Capital

## Sales and EBIT



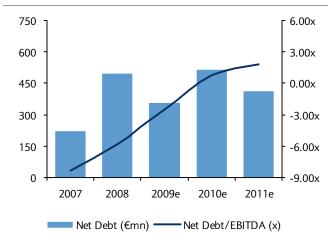
Source: Company data, Barclays Capital

# **CE and ROCE**



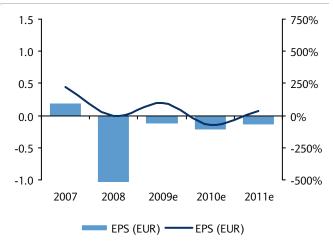
Source: Company data, Barclays Capital

# Net Debt to EBITDA



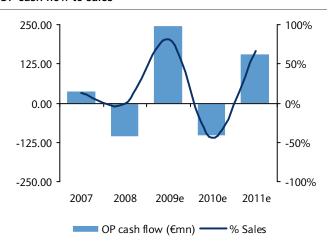
Source: Company data, Barclays Capital

## EPS and EPS growth



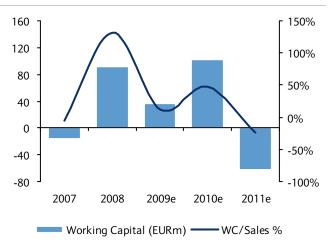
Source: Company data, Barclays Capital

# OP cash flow to sales



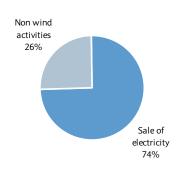
Source: Company data, Barclays Capital

# WC and WC/Sales



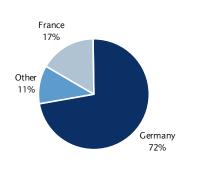
Source: Company data, Barclays Capital

## Divisional revenue breakdown (2008)



Source: Company data, Barclays Capital

# Geographical revenue breakdown (2008)



Source: Company data, Barclays Capital

# Shareholder structure

Mar	ket value (€119mn) Float	70%
Тор	10 holders (% shares outstanding)	
1	GAMA Energy, Inc.	16.2%
2	BALZ WILLI	9.1%
3	SALIK PIERRE	5.3%
4	New Jersey Division of Investment	3.6%
5	BlackRock Investment Management (UK)	2.7%
6	Norges Bank Investment Management	1.4%
7	DnB NOR Kapitalforvaltning ASA	1.2%
8	Guinness Atkinson Asset Management, Inc.	1.0%
9	First Trust Advisors LP	0.8%
10	KD Funds - Management Co. LLC	0.8%

Source: FactSet, Barclays Capital

#### Corporate history

Founded in 1999 and based in Aix en Provence, France, Theolia has positioned itself as a major player within the growing European renewable energy market. Theolia has chosen to focus its development on the construction and operation of wind power plants. The company pursued a strategy of external growth through the acquisition of individual projects or local developers. In 2005 and 2006, Theolia finalised the acquisitions of Ventura in France and Natenco in Germany. In 2007, the company significantly increased its installed capacity through the asset-for-equity swap with GE Energy Financial Services wind farms in Germany. The group continued its external growth strategy to diversify its development portfolio with the acquisition of local developers in Italy (Maestrale Green Energy, 2007) and Morocco (Compagnie Eolienne du Detroit, 2008). The urgency of the situation in which the company was in 2008 required the appointment of new management team with a different strategic approach. The company accelerated the process of non-core assets divestment, initiated a 200MW asset disposal programme and initiated the implementation of a new strategy as independent wind project developers focused on the construction, operation and sell of wind farms.

## Management

CEO: Marc van't Noordende joined Essent NV in 2000 as President of the Energy Division, became a member of Essent's Executive Board in 2002 and was its COO from 2005 to 2008. Mr. van't Noordende has an MBA from Insead (France) and a Law Degree from the University of Leiden (The Netherlands).

CFO: Olivier Dubois is a graduate from French business school ESSEC and Institut d'Etudes Politiques in Paris. Olivier Dubois spent 11 years (1980-1991) in industrial corporate finance with Banque Paribas followed by 11 years (1991-2002) Deputy Chief Executive Officer. Recently (2002-2008) he Held Chief Financial Officer position at Technip.

#### M&A

Jan 2008: Acquired Compagnie Eolienne du Detroit Nov 2007: Acquired Maestrale Green Energy, Italy

Feb 2007: Asset-for-equity swap with GE Energy Financial Services

Dec 2006: Acquired Natenco group, Germany

## Accounting issues

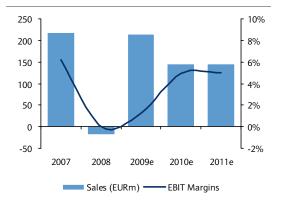
Three accounting errors in the 2007 led to restatements in the 2008 financial accounts resulting in an increase in net earnings by €0.2mn. Power plants and wind farms are depreciated over the lifetime of the agreement of 15 years (France) and 20 years (Germany). The discount rate for impairment tests was 7% (between 6-7% in 2007). Since mid-2008, the cash position worsened considerably and 2007 sales were cancelled leading to a revenue reversal of €31.4mn and margin loss of €3.67m. The total value of intangible assets is €94mn including €30.2mn for projects in development and €60.1mn for other intangible assets. In the first half of 2008, the company acquired turbines for €20.1mn and because of a decline in their recoverable value, an impairment of €3.1mn was recognised at year end. Frozen cash represented €42.2mn pledged by most of the companies.

## Development construction, sale of wind farms and operation

Theolia sells wind farms and turnkey projects to third parties via its subsidiaries in France and Germany. This activity provides Theolia with an opportunity to unlock some values of its project pipeline, optimize the use of the firm capital and provide a good platform to secure maintenance contract. In 2007, the company sold 133MW in Germany and 18MW in France for a total €218mn, or €1.4mn/MW. At the end of 2008, the company announced the reactivation of sales of operational wind farms (no project were sold in 2008) as a pillar of its new strategy to "develop, operate and sell". Theolia is now focusing on developing wind projects until their commissioning, and then will sell the wind farms after two to four years of operation in order to prove the performance of the asset and maximize return on individual project. The company is targeting both industrial and financial investors and concluded the sale of 41.5 Megawatts (MW) over the course of 2009. In addition, the company provides operation and maintenance services and has c370MW under operations for third party at the end of 2009.

Key competitors: EDF Energies Nouvelles

## Divisional forecasts



## Key issues

- The construction and sale of wind farms is a highly seasonal activity. In 2007, Theolia generated 96% of its sale of wind farm activity during the second half of the year. Clients who invest in wind farms in Germany benefit from a significant tax advantage and delay investment as late as possible in the tax year.
- The profitability of individual projects sold to third party remain highly conditioned a number of parameters which include, construction risks, quality and relevance of wind resource assessment as well as investors appetite for wind assets and ability to raise finance.

Source: Company data, Barclays Capital

## Sales of wind electricity

The sale of electricity business includes the sale of electricity produced by Theolia own assets. The newly appointed management team has withdrawn the company installed capacity target (2,000MW by 2011) which was no longer aligned with the company's financial resources. Theolia initiated a 200MW asset disposal program in 2009 in order to restore the company's balance sheet and address liquidity issues. In addition to the operation of own account assets, the Sales of electricity division is an integral part of the company new strategy to "develop, operate and sell", in our view. We think demonstrating the performance of individual over a 2- to 4-year period is crucial for Theolia to maximise return on the sale of individual projects and provide an intermediate source of revenues and cash flow for the company. Though medium term the company is focused on it new strategy, we believe Theolia aspires to develop assets for own account as well near term once balance sheet issues have been addressed.

Key competitors: Greentech, EDF Energies Nouvelles, Iberdrola Renovables, EDP Renovaveis, E.ON, RWE Innogy, Enel Green Power

## Divisional forecasts

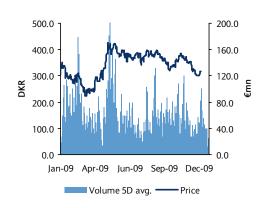


Source: Company data, Barclays Capital

## Key issues

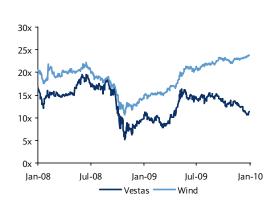
- Wind conditions are variable from quarter to quarter and from year to year. The relative lack of geographical diversification compared to peers makes Theolia revenue stream from the Sale of wind electricity more volatile. In 2009 in particular, the company has been impacted by the poor wind conditions In Germany and France
- Access to project financing remain limited at this stage reflecting funding environment and more importantly the relatively weakness of Theolia balance sheet relative to other market operators.

## Share price performance



Source: FactSet, Barclays Capital

## Historical valuation (EV/EBIT)



Source: Bloomberg, FactSet, Barclays Capital

# Financial benchmarking



Source: FactSet, Barclays Capital

## Vestas (1-OW, DKR 540 PT)

Vestas has been an emotive stock for the market over the course of 2009, and we expect it will continue to be so in 2010. The order book development has been delayed and erratic, as opposed to the more steady evolution seen in the 2005-2008 period, even accounting for the recent good intake in the last two months. We believe the important aspects to note are that this reflects a careful assessment of their ability to price turbines into the market for the 2010-2012 period, and while other vendors have enjoyed some success in the near term, we believe the diversity of their customer base and length of customer relationships is likely to lead to significant order intake over 2010. A source of discussion in the market has been the ability of larger companies to offer in house finance solutions to ensure turbines can be sold. We do not believe that Vestas will participate in utilising its own balance sheet in the near term to do this, though in the future, similar to other industrial companies (such as Volvo, GE) we believe the funding and financing solutions by Vestas can be a useful and recurring source of revenues. In addition, profitability improvements outlined by competitors such as Gamesa, Repower, Suzlon and Clipper are also part of the medium term aspirations for the company. This reflects an improved pricing mechanism for projects, greater after sales service revenues, and improvements from the supply chain in terms of quality.

## **Bulls and Bears**

#### Bulls

- Strengthened balance sheet following Q1 2009 rights issue which provides financial flexibility to capitalize on 2010 and 2011 growth potential
- Opportunities for operational improvements through the implementation of Sigma standards and economies of scale
- Diversified geographical and product profile strengthened by a leading position in the operation and maintenance activity

#### **Bears**

- Order backlog development in 2009 delayed US expansion plan which will be aligned to end market development
- Working capital has deteriorated over the course of 2009 as a result of low order intake and relatively higher inventories
- Challenged market position by domestic suppliers in China and Tier I operators in Europe and North America

# Earnings estimate and company guidance

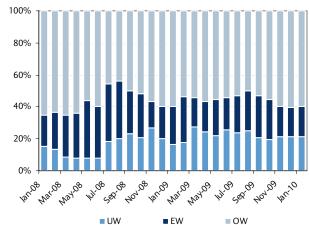
FY Dec, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	4,861.0	6,035.0	7,040.0	7,508.7	10,080.7
EBIT (mn)	443.0	668.0	819.1	914.2	1,281.8
Margin (%)	9.1%	11.1%	11.6%	12.2%	12.7%
EBITDA (mn)	581.0	787.3	982.0	1,110.7	1,498.4
EPS	1.57	2.76	2.82	3.16	4.45
Consensus					
Revenue (mn)			51,462.5	54,802.2	65,528.9
EBIT (mn)			5,826.4	5,812.4	7,664.7
EBITDA (mn)			7,383.7	7,688.6	9,788.6
EPS (€)			19.82	19.93	5,428.8

Guidance: 2009: Sales €7.2bn, EBIT 11-13%, NWC 10-20%, warranty 3-4%, €1bn Capex

- 2010: Sales €7-8bn, EBIT 10-12%, NWC 15%, warranty 3%, €0.6bn Capex
- Triple 15: Sales €15bn. EBIT 15% no later than 2015

Source: FactSet, Company data, Barclays Capital (All % are % of Sales)

#### Recommendation structure



Source: FactSet, Barclays Capital

## Divisional/group forecast

FY Dec, € mn	2008	2009e	2010e	2011e
Sales				
Manufacturing	5,566.0	6,424.6	6,715.1	9,169.5
Sale of service	396.0	550.4	723.6	836.3
Other	73.0	65.0	70.0	75.0
EBIT margin (%)				
Manufacturing	11.1%	11.1%	11.5%	12.0%
Sale of service	13.0%	13.0%	15.0%	15.4%
Other	na	na	na	na

Calendar

14 Jan 2010: Extraordinary General Meeting

10 Feb 2010: FY 2009 Results

17 Mar 2010: Annual General Meeting

28 Apr 2010: Q1 2010 Results

29 Apr 2010: Barclays Capital NY Roadshow (Ditlev Engel)

18 Aug 2010: Q2 2010 Results 26 Oct 2010: Q3 2010 Results

Source: Company data, Barclays Capital

## Sector view: 1- Positive

- Despite an upward trend in financing costs over the last 18 months, the outlook for project IRR remained stable to positive driven by a substantial reduction in transportation and balance of system costs as well as commodity prices decline passed through indexed turbine contracts.
- Lead times significantly reduced over the past twelve months which had a negative impact on prices for unbooked capacities. Due to finance ability and technology limitations, we are not concerned by the emergence of Chinese competition on the medium term. With financing improving and incentive to complete projects in the next two years in major markets, we believe turbine manufacturers and tier 1 supply chain players will likely benefit from a positive order momentum over the next 12-18 months.

Source: Company data, Barclays Capital

# Price target sensitivity

DKR	Long term sales growth								
		3.0%	3.5%	4.0%	4.5%	5.0%	5.5%	6.0%	
	13.5%	467.0	483.1	499.2	515.3	531.4	547.5	563.6	
ı sales	14.0%	472.5	489.5	506.5	523.5	540.5	557.5	574.5	
urn or	14.5%	478.0	495.9	513.8	531.8	549.7	567.6	585.5	
Long term return on sales	15.0%	483.5	502.3	521.1	540.0	558.8	577.7	596.5	
Long t	15.5%	489.0	508.7	528.5	548.2	568.0	587.7	607.5	
	16.0%	494.5	515.1	535.8	556.4	577.1	597.8	618.4	
	16.5%	499.9	521.5	543.1	564.7	586.3	607.8	629.4	

Source: Company data, Barclays Capital

# Competitive position and investability benchmarking



Source: Company data, Barclays Capital

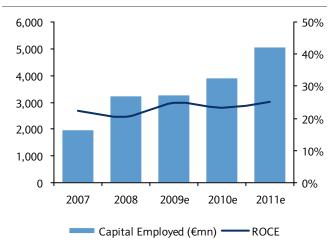
13 January 2010 223

## Sales and EBIT



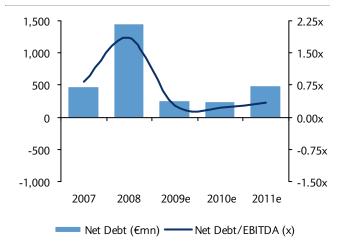
Source: Company data, Barclays Capital

# **CE and ROCE**



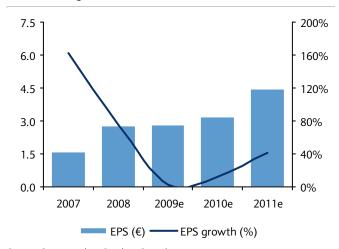
Source: Company data, Barclays Capital

# Net Debt to EBITDA



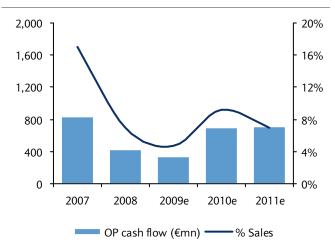
Source: Company data, Barclays Capital

# EPS and EPS growth



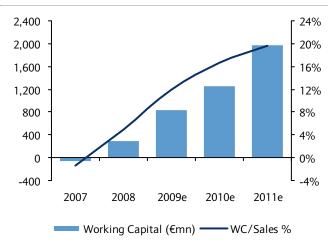
Source: Company data, Barclays Capital

# OP cash flow to sales



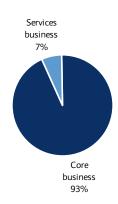
Source: Company data, Barclays Capital

# WC and WC/Sales



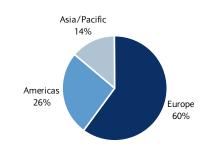
Source: Company data, Barclays Capital

## Divisional revenue breakdown (2008)



Source: Company data, Barclays Capital

# Geographical revenue breakdown (2008)



# Source: Company data, Barclays Capital

# Shareholder structure

Mar	ket value (€9bn)	Float	98%
Тор	10 holders (% shares outstanding)		
1	Marsico Capital Management LLC		4.6%
2	ATP Investment Management		4.5%
3	Capital World Investors		2.6%
4	BlackRock Investment Management	(UK)	2.0%
5	Schouw & Co A/S		2.0%
6	Thornburg Investment Management,	Inc.	1.9%
7	FIL Investments International Ltd.		1.2%
8	Norges Bank Investment Managemer	nt	1.2%
9	Danske Capital Denmark		1.1%
10	Carmignac Gestion SA		0.8%

Source: FactSet, Barclays Capital

## Corporate history

The oil crises of the 1970s prompted the company to diversify from hydraulic cranes into wind turbines. In the 1980s, the wind energy market took off and Vestas expanded into the US. In 1986, the withdrawal of tax advantages on wind turbine investments in the US slowed the market significantly and Vestas was forced to sell off all non-wind turbine-related assets and re-emerge as Vestas Wind Systems A/S. In the 1990s, Vestas acquired Danish Wind Technology A/S, and the major European markets of Germany, Denmark and Spain started to emerge. Vestas floated on the Copenhagen Stock Exchange in 1998. In 2001, Vestas sold its 40% stake in Gamesa Eólica (the Spanish JV 1994), then in 2004 acquired the rival Danish wind turbine manufacturer, NEG Micon. Ditlev Engel succeeded Svend Sigaard as CEO during the summer of 2005. The company has emerged as the leading wind turbine manufacturer and expects by 2015 to achieve to achieve at €15bn sales and a 15% EBIT margin.

## Management

Ditlev Engel, President and CEO: Holds a diploma in Business Economics from the Copenhagen Business School. Before joining Vestas, he spent 15 years in Hempel were he was President and CEO from 2000 to 2005.

Henrik Nørremark, CFO: Holds a diploma in Business Economics from Herning Business School in Denmark. Previously, he was an auditor with Krøyer Pedersenand and Financial Controller at Wind Turbine Maintenance Corp.

Internet Address: www.vestas.com

## Accounting issues

Vestas recognises revenue and profit for supply only contracts on completion of projects when the risks and reward of the turbine are transferred to the buyer prior to the year end. Turnkey and supply and install projects are recognised on a percentage of completion accounting. In 2007, the company wrote off £24mn for intangible assets which relate to development projects where parts of the technology are not to be used in the future. No impairments took place in 2008. The carrying value of goodwill is £320mn. In 2008, the company estimates 45-50% of the warranty provisions made for the year related to adjustments in estimate for previous year provisions for serial faults. 4.0% of sales were provisioned for warranty costs in 2008.

## M&A

Oct 05: Acquired certain assets from Weier Electric.

Mar 04: Acquired NEG Micon for €26.2mn, EV/sales: 40%

Oct 02: Acquired Windcast for €17.9mn, EV/sales: 30%

Dec 01: Sold 40% Gamesa Eólica – €287mn, EV/sales 120

## Wind turbine manufacturing

Vestas is the largest supplier of wind turbines in the world, focusing on the principal activities of product development, manufacture, turnkey delivery and maintenance of wind turbine installations. In 2008, Vestas installed 5,580MW of wind turbine capacity, representing a 19% share of the global market. An important evolution over the past three years is the increased share of supply-only contracts (from 20% in 2007 to more than 30% in 2009 onwards) compared to installation and turnkey projects Vestas has the industry's broadest turbine offering in each market segment: <1MW, <2MW, <3MW and ≥3MW. In addition, the company has announced this year the commercialization in 2010 of three additional turbines, enhancing its position in the low and medium wind speed segments: the V112-3.0MW, the V100 1.8MW and the V60 850kW specifically designed for the Chinese market. In its development strategy Vestas made the strategic decision to focus on improving efficiency, quality and reliability of its existing turbine range. This is key to Vestas' strategy to reduce cost of energy and minimise uncertainty on project returns for its customers. Significant improvements in turbine technology have been achieved in recent years, as evidenced by the reduced guidance for warranty provisions from 3-4% in 2009 to 3% in 2010. Finally, the company has announced in Q3 2009 the ongoing development of a 6MW offshore dedicated turbine to strengthen its offering on this segment and benefit from medium-term opportunities in the UK and Germany.

Vestas maintains production facilities in Denmark, Germany, Italy, India, the UK, Spain, Norway, Sweden, China and the US. The group reports sales globally with 60% revenues in Europe, 26% for Americas and 14% in Asia/Pacific. Vestas' supply chain and production strategy is based upon three pillars: (i) establishing local supply chain and production platforms in each major region (Europe, Asia and North America); (ii) increasing coordination and integration with its supply chain vendors; and (iii) implementing high quality and testing control processes. Over the past three years, we believe the implementation of supply chain, control and risk management measures has been an important driver for Vestas to increase profitability. With its 10GW in 2010 strategy, Vestas outlines its ambition to scale its manufacturing business to higher standards and gain market share. Over the medium term the company expects through the achievement of six Sigma quality standards, capacity expansion and the development of its operation and maintenance activity to achieve revenues of €15bn and a profit margin of 15% no later than 2015.

Key competitors: Gamesa, Enercon, GE, Siemens, Suzlon, Nordex, REpower, Sinovel, Goldwind, Dongfang, Clipper

#### Divisional forecasts

#### 12,000 15% 13% 9.000 11% 6.000 9% 3,000 0 5% 2011e 2007 2010e 2008 2009e Sales (€mn) — EBIT Margins

#### Key issues

- The company has not received new order from the US market in 2009 providing limited visibility on the utilisation of its US facility which the company plans to increase to 3GW in 2010. While timing for US orders to materialize remains uncertain, the ITC cash grant provides a strong incentive for project to be 5% cost incurred by the end of 2010 and completed by October 2011. This in our view provides the most attractive support to wind investment in the United States so far.
- Despite its significant track record and a growing share of supply-only contracts (the company expects >30% in 2009), Vestas' manufacturing business carries project execution risks which may negatively affect profitability. In particular, the company will be executing a 300MW offshore wind project in 2010 (Thanet project)
- Vestas has strengthened its quality control procedures and lengthened testing procedures for individual components and new products. However, technology risks remain during the warranty period provided which we estimate on Vestas fleet of three to four years on average. In addition, product risk may increase as a result of the acceleration of product launch the company announced for the 2010-2012 period
- As a result of low order intake in 2010, the high expected inventory build up in 2010 to prepare an anticipate for a strong rebound in installations in 2011 and less favorable payment terms relative to 2008 levels, the company expects working capital to increase to ~15% in 2010.

Source: Company data, Barclays Capital

## Services

Vestas' Service division offers maintenance, service and monitoring of turbines and repairs and the supply of spare parts. Vestas streamlined its services operation, particularly in the distribution of spare parts and its contract negotiations. Increasing efficiency with the implementation of ERP and SCADA systems have enabled the company to double its mean time between inspections. Revenue from services has doubled over the past five years and accounted for €396mn in FY08 or 6.6% of total group revenues. We estimate Vestas' market for its Services division as €876mn in 2008 of which its market penetration is 45%. The company anticipates a €600mn to be generated from the division in 2010 with an EBIT margin in excess of 15%.

Key competitors: Enercon, GE, Siemens, Suzlon, Nordex, REpower, EDF Energies Nouvelles, Theolia

## **Divisional forecasts**



Source: Company data, Barclays Capital

## Key issues

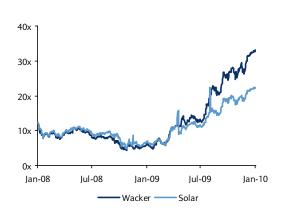
Vestas has experienced challenges to distribute its resources efficiently to deal with operation and maintenance issues. The company has deployed new systems and a global supply and repair organisation over the course of 2009 in order to more efficiently operate in 2010 and minimise turbine downtime to its customers.

## Share price performance



Source: FactSet, Barclays Capital

## Historical valuation (EV/EBIT)



Source: Bloomberg, FactSet, Barclays Capital

## Financial benchmarking



Source: FactSet, Barclays Capital

## Wacker (1-OW, €145 PT)

Wacker's outlook for 2010 looks robust as it continues along its path of expanding its Polysilicon division. This year we expect the Poly division to represent 70% of group Ebitda, and the expectation for the year continues to be that contract, shortterm and spot price evolution will be more stable than over the past two years. As new entrants from Asia continue to procure equipment we believe that over the medium term these companies will be able to compete more effectively on price and quality, but that Wacker will be able to respond through an ongoing trend towards lower cost of production. Over the course of this year we expect the company to conduct an impairment test of assets, which in line with other solar companies may see a write down of carrying values. We expect the company to see a deterioration of cashflow and working capital over the next twelve months as prepayments that historically have been signed are now no longer being agreed and we forecast working capital from the end of 2009 of -7.2% of sales to increase to 4.3% of sales by the end of 2011. Together with an underlying improvement in non-solar end market segments, we see Wacker well positioned to benefit from global economic activity.

## **Bulls and Bears**

#### **Bulls**

- Wacker is a leading supplier of high quality polysilicon and has strong cost-ofproduction advantages over newer entrants
- Important efficiency gains which enable the company to produce well above designed capacity, increasing its expansion plan by 12% to 40,000MT without additional capex
- €260mn cost-savings program over the next two years driven by personnel cost reduction and the restructuring of the Siltronics and Silicones divisions.

#### **Bears**

- Visibility on demand for semiconductor wafers remains low and pricing pressure may continue to drive losses in the Siltronic division
- Solar demand remains a concern. A low installation level in 2010 may cause the poly spot prices to fall below long-term contracts, resulting in potentially greater renegotiation scope.

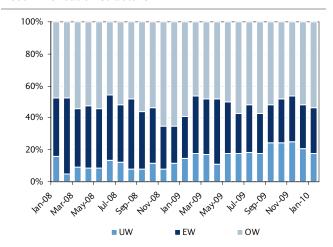
## Earnings estimate and company guidance

FY Dec, €	2007	2008	2009e	2010e	2011e
Revenue (mn)	3,781.3	4,298.1	3,785.0	4,059.2	4,202.2
EBIT (mn)	651.2	681.3	210.1	627.9	745.3
Margin (%)	17.2%	15.9%	5.6%	15.5%	17.7%
EBITDA (mn)	1,003.1	1,088.6	736.5	1,054.1	1,186.5
EPS	8.09	8.43	0.16	7.90	9.55
Consensus					
Revenue (mn)			3,753.7	4,179.3	4,586.6
EBIT (mn)			226.1	587.9	756.4
EBITDA (mn)			710.7	1,023.5	1,239.7
EPS (€)			1.14	7.58	9.49

Guidance: na

Source: FactSet, Company data, Barclays Capital

#### Recommendation structure



Source: FactSet, Barclays Capital

## Divisional/group forecast

FY Dec, € mn	2008	2009e	2010e	2011e
Sales				
Siltronic	1,360.0	701.8	758.0	822.9
Silicones	1,408.6	1,267.7	1,331.1	1,397.7
Polymers	867.9	772.4	701.3	715.3
Polysilicon	828.1	1,091.1	1,325.5	1,440.8
Fine Chemicals	97.7	96.7	110.3	125.7
EBIT margin (%)				
Siltronic	14.3%	-52.5%	1.5%	2.3%
Silicones	6.1%	7.1%	5.7%	5.9%
Polymers	7.5%	10.0%	9.9%	10.2%
Polysilicon	42.2%	37.7%	35.5%	39.2%
Fine Chemicals	6.1%	6.1%	7.3%	9.6%

Source: Company data, Barclays Capital

# Price target sensitivity

€	Long term sales growth								
		1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%	
	11.5%	169.7	160.1	150.4	140.8	131.2	121.6	112.0	
า sales	12.0%	170.4	161.0	151.6	142.2	132.8	123.5	114.1	
turn or	12.5%	171.1	161.9	152.8	143.6	134.5	125.3	116.2	
Long term return on sales	13.0%	171.7	162.8	153.9	145.0	136.1	127.1	118.2	
Long te	13.5%	172.4	163.7	155.1	146.4	137.7	129.0	120.3	
	14.0%	173.1	164.7	156.2	147.7	139.3	130.8	122.4	
	14.5%	173.8	165.6	157.4	149.1	140.9	132.7	124.4	

Source: Company data, Barclays Capital

#### Calendar

24 Mar 2010: FY 2009 Results29 Apr 2010: Q1 2010 Results

■ 21 May 2010: Annual Shareholders' Meeting

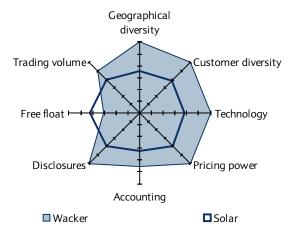
28 Jun 2010: Capital Market Days
 30 Jun 2010: Q2 2010 Results
 05 Nov 2010: Q3 2010 Results

Source: Company data, Barclays Capital

## Sector view: 1- Positive

- The solar sector was affected in 2009 by a sudden shift in supply demand driven by regulatory changes in Spain and financing constraint. Industry fundamentals have significantly improved with financing availability and demand showing some signs of elasticity from lower installation costs post renegotiations across the supply chain.
- The upstream segment of the solar PV supply chain enjoys higher barriers to entry the rest of the PV supply chain as a result of the significant technology and processing expertise necessary to run profitable operations coupled with the high capital intensity of investments. Despite the trend toward shorter-term contracts, lower prepayment and declining pricing we expect earnings to remain relatively stable for Tier 1 operators as they realise economies of scale and further technology cost reduction.

# Competitive position and investability benchmarking



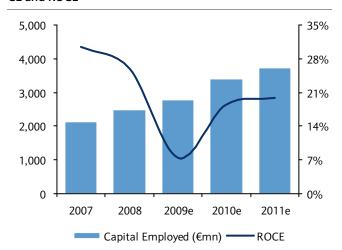
Source: Company data, Barclays Capital

## Sales and EBITDA



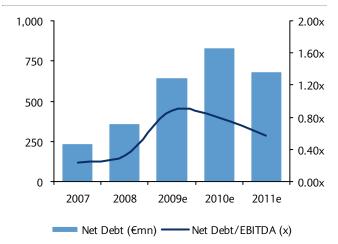
Source: Company data, Barclays Capital

# **CE and ROCE**



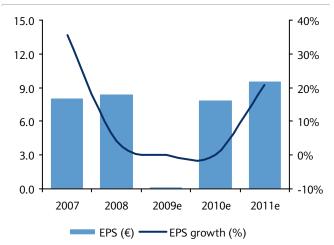
Source: Company data, Barclays Capital

# Net Debt to EBITDA



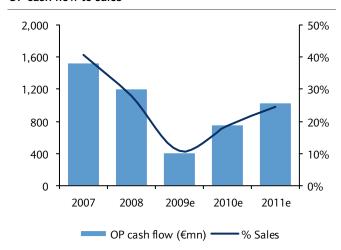
Source: Company data, Barclays Capital

# EPS and EPS growth



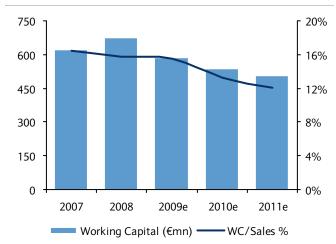
Source: Company data, Barclays Capital

# OP cash flow to sales



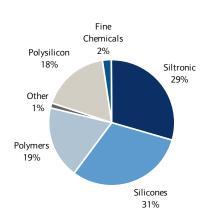
Source: Company data, Barclays Capital

# WC and WC/Sales



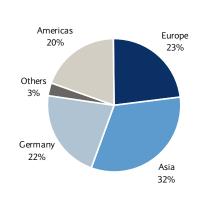
Source: Company data, Barclays Capital

## Divisional revenue breakdown (2008)



Source: Company data, Barclays Capital

# Geographical revenue breakdown (2008)



Source: Company data, Barclays Capital

# Shareholder structure

Mar	ket value (€6.3bn)	loat	29%
Тор	10 holders (% shares outstanding)		
1	WACKER FAMILY		55.6%
2	WACKER PETER-ALEXANDER		10.9%
3	Wacker Chemie AG		4.7%
4	Artisan Partners LP		2.9%
5	BlackRock Investment Management (Ul	K)	1.0%
6	Union Investment Privatfonds GmbH		0.8%
7	DWS Investment GmbH		0.8%
8	Deutsche Asset Management Investme	nt	0.5%
9	T. Rowe Price Associates, Inc.		0.5%
10	Allianz Global Investors		0.4%

Source: FactSet, Barclays Capital

## Corporate history

Wacker's origins begin with the foundation of Dr. Alexander Wacker Gesellschaft fur elektrochemische Industrie KG in 1914. In 1921, Hoechst AG became a shareholder of Wacker Chemie, owning 50% of the share capital. In 1947 the company started working in the silicone business, and in 1953 began producing hyper pure silicon for the semiconductor industry. The Siltronic Corporation was founded in 1978 in Portland, Oregon. The company went public in 2006 and that year formed JVs with Dow Corning for silicones and Samsung for semiconductor wafers. In 2007, the company formed a JV with Schott Solar for the manufacture and distribution of solar wafers. After difficulties experienced in 2009 and unsatisfactory performance of the division, the company has decided to withdraw from the Schott Solar JV to entirely focus on the production of polysilicon on the solar market.

## Management

Dr. Rudolf Staudigl (CEO): Held various positions within Wacker Siltronic after joining the company in 1983. Rudolf joined the group's Executive Board in 1995 and became CEO in May 2008.

Dr. Joachim Rauhut (CFO): Joined Wacker as a member of the Executive Board in 2001 after previously working for Mannesmann in several roles including CFO. Previously Joachim worked at Krauss-Maffei AG as CFO between 1997 and 1999.

Dr. Wilhelm Sittenthaler: Wilhelm has held various positions in the Chemicals and Silicones divisions since 1980. Wilhelm joined the board in 2000 and has carried out the duties of Siltronic CEO from 2003-2008.

Auguste Willems: Auguste worked in various roles at Henkel Belelux before joining COGNIS as a member of the Corporate Executive Committee. He became a member of Wacker's Executive Board in January 2006.

Internet address: www.wacker.com

## Accounting issues

Goodwill impairment tests are based upon a 10-year planning period and a discount rate of 6.9% assumed. At the end of 2008, the carrying value of intangible assets was  $\in$ 10.1mn and  $\in$ 24.7mn (including acquired assets). The company has guarantees of  $\in$ 73.7mn including obligations to make additional contributions.

## M&A

2009: Exit Wacker - Schott JV

2007: establish Wacker - Schott JV to develop solar wafers

2006: establish JV with Dow Corning in China

2005: acquisition of Polymers activity of Wuxi Xinda Fine Chemicals (China)

2005: establish Silicones JV with China's Dymatic Chemicals

## Wacker Polysilicon

Wacker is a leading polysilicon manufacturer for the solar and the semi-conductor industry with a c25% market share in 2009. The division caters to the semiconductor and solar industries, with the service line including polysilicon chunks, polysilicon rods, granular polysilicon, pyrogenic silica, salt and wafers for the solar industry. The company currently has a polysilicon production capacity of 15,000MT, and plans to increase capacity to 40,000MT by 2011 through plant expansion and efficiency improvements. In February 2009 the company purchased 220 hectares of land in Tennessee, USA at a price of USUS\$20mn to aid US expansion, although the company has yet to announce development plans awaiting polysilicon demand developments. The company enjoys a strong competitive position on the solar polysilicon market which is based on its track record in delivering consistently on volume, high quality at attractive pricing conditions. Over the course of 2009, the company has maintained full capacity utilisation which highlighted market share gains especially on the spot market which was primarily supplied by Tier 2 suppliers in 2007 and 2008. In 2009, the sharp changes in market conditions for solar wafers and unsatisfactory performance lead Wacker to withdraw from the Schott Solar JV it established in 2007.

Key competitors: REC, MEMC, Hemlock, Tokuyama, Mitsubishi Electrics

## Divisional forecasts



#### Key issues

- Competition may intensify if quality, volume and efficiency issues are overcome by Tier Two players. The medium-term outlook remains conditioned by endmarket demand for solar product. Should the rebound in solar installation be less pronounced by the growth in polysilicon supply in 2010 from established players (REC, Hemlock) and newer entrants (LDK, PV Crystalox, Solarworld), poly spot prices may fall below long-term contracts, resulting in potentially greater long-term contract renegotiation scope.
- Given the more balance supply demand scenario expected for polysilicon over the next 12-18 months, we expect prepayment levels to materially decrease from their 2008 levels of 20-25%. In addition, we expect contract length to decline over time or framework agreements to include more dynamic price and volume mechanisms which may impact Wacker visibility and working capital.

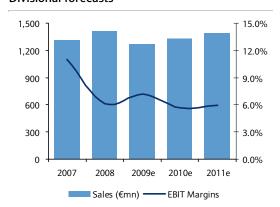
Source: Company data, Barclays Capital

## **Wacker Silicones**

Wacker has a 15% share of the global Silicones market catering to construction, chemicals, health, automotive and the plastics industry. Through advanced technology, the company has been able to prepare eco-friendly spray foams and silicone elastomers that substitute conventional ceramics as insulating materials in power transmission. In September 2008, two new production facilities in Nunchrltz, Germany came online and the company plans for 280kT of total capacity by 2011. The Silicones division is currently focusing on the high-growth Asian market, specifically India and China. In partnership with Dow Corning, the Zhangjlagang site in China was expanded during 2008 with full capacity scheduled for the end of 2010. Historical growth rates have usually been at GDP +2-3%, driven mainly by the substitution of alternative materials, regional growth and innovation.

Key competitors: Dow Corning, Evonik, Momentive, Cabot, Shin-Etsu, Tokuyama

# Divisional forecasts



Source: Company data, Barclays Capital

# Key issues

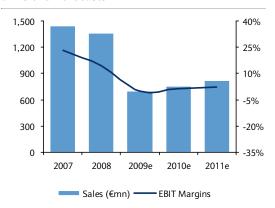
- End-market conditions may remain challenging for Silicones in the short term due to weak demand and pricing pressure driven by de-stocking and the uncertain economic environment.
- The division reorganization may not realise the company's anticipated €50mn cost savings and further provisions may be required.

## Siltronic

The Siltronic division produces wafers for the semiconductor industry and ingots for the solar industry. The company commands a 15% market share in the global semiconductor wafers market. In addition, the company has developed expertise in the manufacture of 300mm wafers and benefits from secure in-house polysilicon supply. The company is currently undergoing a restructure with production of each wafer diameter to be focused on one facility. The company has announced that the division's headcount will be reduced by 1,000 from the second quarter of 2008 levels and the company expects annual savings of €50mn from 2009 onwards.

Key competitors: Shin-Etsu, SUMCO, MEMC, LG Siltron.

## **Divisional forecasts**



## Key issues

Current high 300mm wafer inventories and overcapacity may exert further pressure on the division's profitability. Wacker expects demand on 200mm wafers. The division reorganisation may not realise the company's estimated €50mn cost savings and further provisions may be required.

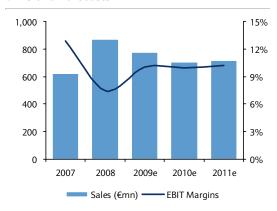
Source: Company data, Barclays Capital

## **Wacker Polymers**

The Polymers division largely caters to the ceramic tile adhesives market and to the market for EIFS (External Insulation Finishing Systems). The company is a leading supplier of Dispersible Polymer Powders (2008: >70% market share) and VAE dispersion (2008: 45%). Wacker Polymers has also ensured regional penetration by establishing technical centres in nine locations around the world. With leading market shares, Polymers is the only vertically-integrated player globally in this market. The company has implemented a cost-cutting program to counter rising raw material and energy costs. Measures include temporary production shutdowns at specific plants and the delay of a scheduled ramp-up in China. In addition, Polymers sold its Pioloform binder in 2008.

Key competitors: Bayer, BASF, Air Products, Dow Corning, Degussa, Henkel, Rhodia

## **Divisional forecasts**



Source: Company data, Barclays Capital

# Key issues

 While end-market uncertainty remains, orders may continue to be short-term driven, limiting medium-term potential to fully optimise capacity utilisation.

## **Wacker Fine Chemicals**

The Fine Chemicals division is largely focused on niche markets. Its key products are Cyclodextrins, which cater to the household and industrial segments, and Cysteines, which serve the food and flavouring, pharma and cosmetics industries. The company also produces biologics which are used in protein production, biotransformation and metabolic engineering. The division remains relatively small within the Wacker group: 2008 EBITDA accounted for less than 1% of group EBITDA.

Key competitors: Bayer, BASF, Air Products, Dow Corning, Degussa, Henkel, Rhodia

# **Divisional forecasts**

#### 12% 150 8% 120 4% 90 0% 60 30 -8% 0 -12% 2007 2008 2010e 2011e 2009e Sales (€mn) -EBIT Margins

Source: Company data, Barclays Capital

# Key issues

The Fine Chemicals business forms a small part of activities for the Wacker group, representing the centre of competence for biotechnological engineering. We expect the company to focus on niche markets and the division's contribution to group revenues to remain limited to c3% over the next three years.

# **AMG**

Profit & Loss (€ mn)	2006	2007	2008	2009e	2010e	2011e
Total sales	927.8	1155.7	1517.9	848.8	854.1	854.9
Less associate sales	0.0	0.0	0.0	0.0	0.0	0.0
Sales	927.8	1155.7	1517.9	848.8	854.1	854.9
Variable costs	-693.7	-842.1	-1076.9	-611.1	-614.9	-615.5
Gross profit	234.1	313.6	441.0	237.7	239.1	239.4
Personnel expenses	-136.1	-180.5	-233.5	-210.2	-199.7	-189.7
Depreciation	-16.9	-18.7	-31.3	-35.5	-37.4	-34.9
Goodwill amortisation	-1.6	0.0	0.0	0.0	0.0	0.0
Other operating Items	-41.3	-30.3	-101.0	33.9	42.1	34.8
Reported EBIT	38.1	84.2	75.2	25.8	44.2	49.6
Income from associates	-2.4	-3.2	-10.6	-4.9	-8.1	0.3
Other financials	0.0	-31.1	-6.3	0.0	0.0	0.0
Interest income	3.5	7.0	7.8	4.3	4.6	6.5
Interest expense	-36.6	-28.0	-21.6	-17.3	-17.3	-17.3
Net interest income/(charge)	-33.0	-21.1	-13.8	-13.0	-12.8	-10.9
Exceptional Items	0.0	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	2.7	28.8	44.5	7.9	23.4	39.0
Taxation	-8.4	-20.7	-41.9	-3.3	-8.2	-10.1
Minority interest	10.2	10.2	10.2	10.2	10.2	10.2
Discontinued Operations	0.0	0.0	0.0	-54.6	0.0	0.0
Reported net income	4.5	18.3	12.8	-39.8	25.4	39.1
Dividend	0.0	0.0	0.0	0.0	0.0	0.0
Retained profit	4.5	18.3	12.8	-39.8	25.4	39.1

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2006	2007	2008	2009e	2010e	2011e
Reported EBIT	38.1	84.2	75.2	25.8	44.2	49.6
Movement in working capital	-16.3	-2.8	-40.0	18.6	-27.3	16.8
Depreciation (& amortisation if deducted)	18.5	18.7	31.3	35.5	37.4	34.9
Change in provisions/ other items	18.2	6.2	81.3	0.0	0.0	0.0
Operating Cash Flow	59.4	106.2	147.8	80.0	54.3	101.3
Financing Activities	-34.4	-41.8	-55.7	-16.3	-20.9	-20.9
Net interest expense	-28.7	-21.1	-13.8	-13.0	-12.8	-10.9
Dividends paid	0.0	0.0	0.0	0.0	0.0	0.0
Tax paid	-5.8	-20.7	-41.9	-3.3	-8.2	-10.1
Investing Activities	-23.9	-57.5	-157.0	-12.7	-17.1	-17.1
Capital expenditure	-24.3	-58.3	-158.3	-12.7	-17.1	-17.1
Fixed asset/ investment sales	0.4	0.8	1.3	0.0	0.0	0.0
BCER free cash flow	1.1	7.0	-64.9	50.9	16.2	63.3
Other financial items	14.4	-188.2	85.7	0.0	0.0	0.0
Net acquisition/disposals	-4.0	-9.2	-80.4	0.0	0.0	0.0
Proceeds from share issues	0.1	342.6	0.2	0.0	0.0	0.0
Other cash flow items	-7.3	8.4	6.6	0.0	0.0	0.0
Change in net debt	-4.3	-160.6	52.9	-50.9	-16.2	-63.3

Balance Sheet (€ mn)	2006	2007	2008	2009e	2010e	2011e
Fixed assets	186.2	282.7	435.0	412.2	391.9	374.2
Goodwill in BS	36.1	40.0	36.1	36.1	36.1	36.1
Other intangibles	8.8	10.3	10.9	10.9	10.9	10.9
Tangible assets	101.3	155.8	313.5	290.7	270.3	252.6
Financial investments	13.3	15.1	15.7	15.7	15.7	15.7
Other LT financial assets	26.7	61.5	58.8	58.8	58.8	58.8
Working capital	177.0	172.1	241.5	246.2	273.3	256.5
Inventories	159.7	186.4	318.8	178.2	179.4	145.3
Trade debtors	141.0	187.2	173.4	169.8	170.8	171.0
Cash unavailable for investment	-29.7	-74.7	-94.0	-34.0	-34.2	-34.2
Trade creditors	-93.8	-126.8	-156.7	-67.9	-42.7	-25.6
Other Debtors/(creditors)	-15.2	2.1	-38.7	-61.9	-61.8	-61.7
Other debtors	29.2	52.3	59.2	35.9	36.1	36.1
Other creditors	-44.4	-50.3	-97.9	-97.9	-97.9	-97.9
Net cash/(debt)	-222.2	47.1	-88.5	-42.5	-34.4	29.2
Cash & securities	54.6	187.9	143.6	143.6	151.7	215.2
Gross debt	276.8	140.8	232.0	186.1	186.1	186.1
Provisions	149.6	194.1	237.6	237.6	237.6	237.6
Pension provisions (net)	94.2	102.8	103.2	103.2	103.2	103.2
Tax provisions (net)	26.1	43.6	70.7	70.7	70.7	70.7
Restructuring provisions	0.0	0.0	0.0	0.0	0.0	0.0
Other provisions	29.3	47.7	63.7	63.7	63.7	63.7
Net Equity	-23.7	309.8	311.8	316.4	331.5	360.5
Ordinary shareholders' funds	-34.1	245.7	254.7	259.2	274.4	303.3
Preference shares	10.4	64.1	57.1	57.1	57.1	57.1
Minorities	0.0	0.0	0.0	0.0	0.0	0.0
Total assets (or liabilities)	570.6	896.5	1130.0	939.7	929.9	941.8

# Abengoa

Profit & Loss (€ mn)	2006	2007	2008	2009e	2010e	2011e
Total sales	2677.2	2655.8	3114.5	4069.2	5504.7	6507.4
Less associate sales	0.0	0.0	0.0	0.0	0.0	0.0
Sales	2677.2	2655.8	3114.5	4069.2	5504.7	6507.4
Variable costs	-1645.7	-1880.7	-2733.7	-3458.8	-4679.0	-5531.3
Gross profit	1031.5	775.0	380.9	610.4	825.7	976.1
Administrative expenses	-426.0	-372.3	-461.4	-716.5	-969.2	-1145.7
Depreciation	-68.7	-89.6	-163.2	-189.6	-225.8	-265.5
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0	0.0
Other operating Items	-317.7	-79.8	539.8	698.4	883.9	1068.5
Reported EBIT	219.2	233.4	296.1	402.7	514.6	633.4
Income from associates	7.5	4.2	9.4	0.0	0.0	0.0
Other financials	3.0	14.4	-63.4	0.0	0.0	0.0
Interest income	24.4	22.6	30.9	30.9	30.9	30.9
Interest expense	-119.2	-164.7	-261.3	-197.2	-217.4	-248.4
Net interest income/(charge)	-84.3	-123.4	-284.5	-166.4	-186.5	-217.5
Exceptional Items	0.0	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	134.8	109.9	11.7	236.4	328.1	415.9
Taxation	-13.3	-10.1	115.2	-63.8	-88.6	-112.3
Minority interest	-21.2	20.5	-25.4	0.0	0.0	0.0
Discontinued Operations	0.0	0.0	38.9	0.0	0.0	0.0
Reported net income	100.3	120.4	140.4	172.5	239.5	303.6
Dividend	-12.7	12.7	16.3	0.0	0.0	0.0
Retained profit	113.0	107.7	124.1	172.5	239.5	303.6

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2006	2007	2008	2009e	2010e	2011e
Reported EBIT	219.2	233.4	296.1	402.7	514.6	633.4
Movement in working capital	104.7	166.9	351.0	-602.1	88.4	-121.5
Depreciation (& amortisation if deducted)	68.7	147.0	178.4	189.6	225.8	265.5
Change in provisions/ other items	-48.7	11.4	48.9	0.0	0.0	0.0
<b>3</b> ,	343.8	558.8	874.3	-9.7	828.8	777.4
Operating Cash Flow	343.6	330.0	6/4.3	-9.7	020.0	777.4
Financing Activities	-111.4	-158.0	-184.7	-230.2	-275.1	-329.8
Net interest expense	-84.3	-123.4	-284.5	-166.4	-186.5	-217.5
Dividends paid	-13.8	-24.5	-15.4	0.0	0.0	0.0
Tax paid	-13.3	-10.1	115.2	-63.8	-88.6	-112.3
Investing Activities	-877.2	-1164.4	-1577.9	-1078.3	-1128.5	-1334.0
Capital expenditure	-918.2	-1347.8	-1628.9	-1078.3	-1128.5	-1334.0
Fixed asset / investment sales / other items	41.0	183.4	51.0	0.0	0.0	0.0
BCER free cash flow	-644.9	-763.6	-888.2	-1318.3	-574.8	-886.4
Other financial items	-197.1	-150.2	-339.0	0.0	0.0	0.0
Net acquisition/disposals	0.0	0.0	0.0	0.0	0.0	0.0
Proceeds from share issues	1434.6	1547.8	902.1	0.0	0.0	0.0
Other cash flow items	0.0	0.0	0.0	0.0	0.0	0.0
Change in net debt	-592.6	-634.0	325.2	1318.3	574.8	886.4

Balance Sheet (€ mn)	2006	2007	2008	2009e	2010e	2011e
Fixed assets	2784.1	4152.5	6139.8	7028.5	7931.1	8999.7
Goodwill in BS	0.0	0.0	0.0	0.0	0.0	0.0
Other intangibles	623.3	1227.0	1056.9	1091.7	1150.0	1223.7
Tangible assets	639.7	870.9	1035.1	1663.6	2276.8	2989.3
Financial investments	1146.9	1638.1	2249.8	2475.1	2706.3	2988.7
Other LT financial assets	374.1	416.5	1798.0	1798.0	1798.0	1798.0
Working capital	-795.7	-931.2	-1632.9	-1030.9	-1119.3	-997.8
Inventories	150.7	242.5	316.1	413.0	558.7	660.4
Trade debtors	714.4	1145.8	919.4	1201.2	1624.9	1920.9
Cash unavailable for investment	0.0	0.0	0.0	0.0	0.0	0.0
Trade creditors	-1660.9	-2319.4	-2868.4	-2645.0	-3302.8	-3579.1
Other Debtors/(creditors)	50.1	491.6	568.0	568.0	568.0	568.0
Other debtors	749.4	871.5	1085.7	1085.7	1085.7	1085.7
Other creditors	-699.3	-380.0	-517.6	-517.6	-517.6	-517.6
Net cash/(debt)	-1259.5	-2634.4	-3233.0	-4551.2	-5126.0	-6012.4
Cash & securities	1028.0	1697.9	1333.7	1333.7	1333.7	1333.7
Gross debt	2287.5	4332.3	4566.7	5885.0	6459.7	7346.2
Provisions	237.8	281.0	1214.4	1214.4	1214.4	1214.4
Pension provisions (net)	0.0	0.0	0.0	0.0	0.0	0.0
Tax provisions (net)	86.4	139.2	123.4	123.4	123.4	123.4
Restructuring provisions	0.0	0.0	0.0	0.0	0.0	0.0
Other provisions	151.4	141.8	1090.9	1090.9	1090.9	1090.9
Net Equity	541.1	797.5	627.5	800.0	1039.5	1343.1
Ordinary Shareholders' funds	390.1	617.0	406.8	579.3	818.8	1122.4
Preference shares	0.0	0.0	0.0	0.0	0.0	0.0
Minorities	151.0	180.5	220.7	220.7	220.7	220.7
Total assets (or liabilities)	5426.6	8110.2	9794.6	11062.0	12534.1	14000.4

# Acciona

Profit & Loss (€ mn)	2007	2008	2009e	2010e	2011e
Total sales	7952.6	12665.3	6771.5	7460.1	8017.5
Less associate sales	0.0	0.0	0.0	0.0	0.0
Sales	7952.6	12665.3	6771.5	7460.1	8017.5
Variable costs	-2827.4	-5891.3	-2525.3	-2782.1	-2990.0
Gross profit	5125.1	6774.0	4246.2	4678.0	5027.5
Administrative expenses	-1342.2	-1724.4	-1239.2	-1365.2	-1467.2
Depreciation	-471.8	-1149.1	-535.3	-643.3	-723.9
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0
Other operating Items	-2376.1	-2222.9	-2016.1	-2058.3	-2181.2
Reported EBIT	935.0	1677.6	455.6	611.1	655.3
Income from associates	0.0	0.0	0.0	0.0	0.0
Other financials	235.3	14.1	0.0	0.0	0.0
Interest income	671.5	336.3	57.2	57.2	57.2
Interest expense	-722.8	-1282.4	-258.7	-246.1	-259.2
Net interest income/(charge)	184.0	-932.0	-201.4	-188.9	-202.0
Exceptional Items	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	1119.0	745.6	254.2	422.3	453.4
Taxation	-123.4	-178.3	-55.9	-126.7	-136.0
Minority interest	-69.4	-190.6	0.0	0.0	0.0
Discontinued Operations	48.3	87.8	1129.0	0.0	0.0
Reported net income	974.5	464.5	1327.3	295.6	317.4
Dividend	-190.0	-96.6	0.0	0.0	0.0
Retained profit	1164.5	561.1	1327.3	295.6	317.4

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2007	2008	2009e	2010e	2011e
Reported EBIT	935.0	1677.6	455.6	611.1	655.3
Movement in working capital	-640.7	-673.9	790.1	-92.3	-74.7
Depreciation (& amortisation if deducted)	475.7	1315.9	535.3	643.3	723.9
Change in provisions/ other items	-607.6	-130.3	0.0	0.0	0.0
Operating Cash Flow	162.5	2189.3	1781.0	1162.1	1304.4
Financing Activities	-172.7	-1352.8	-257.3	-315.5	-338.0
Net interest expense	184.0	-932.0	-201.4	-188.9	-202.0
Dividends paid	-234.4	-344.6	0.0	0.0	0.0
Tax paid	-122.3	-76.2	-55.9	-126.7	-136.0
Investing Activities	-3171.6	-619.5	9720.8	-1865.0	-1403.1
Capital expenditure	-2159.6	-3108.6	-1862.2	-1865.0	-1403.1
Fixed asset / investment sales / other items	-1011.9	2489.2	11583.0	0.0	0.0
BCER free cash flow	-3181.8	217.0	11244.5	-1018.4	-436.6
Other financial items	3135.4	1079.1	0.0	-946.0	-1472.0
Net acquisition/disposals	0.0	0.0	0.0	0.0	0.0
Proceeds from share issues	0.0	0.0	0.0	0.0	0.0
Other cash flow items	0.0	0.0	0.0	0.0	0.0
Change in net debt	46.4	-1296.1	-11244.5	1964.4	1908.6

Balance Sheet (€ mn)	2007	2008	2009e	2010e	2011e
Fixed assets	25599.5	28707.5	18451.4	19673.1	20352.3
Goodwill in BS	8105.5	3962.4	3962.4	3962.4	3962.4
Other intangibles	763.2	3845.6	3845.6	3845.6	3845.6
Tangible assets	13671.7	17236.5	6980.3	8202.0	8881.2
Financial investments	2851.6	3530.8	3530.8	3530.8	3530.8
Other LT financial assets	207.4	132.3	132.3	132.3	132.3
Working capital	1972.7	1697.9	907.8	1000.1	1074.8
Inventories	2141.5	2217.4	1185.5	1306.1	1403.7
Trade debtors	4156.6	3963.1	2118.9	2334.3	2508.8
Cash unavailable for investment	0.0	0.0	0.0	0.0	0.0
Trade creditors	-4325.5	-4482.6	-2396.6	-2640.3	-2837.6
Other Debtors/(creditors)	-3164.4	-3406.8	-3406.8	-3406.8	-3406.8
Other debtors	2812.8	708.4	708.4	708.4	708.4
Other creditors	-5977.2	-4115.2	-4115.2	-4115.2	-4115.2
Net cash/(debt)	-14331.7	-15567.4	-4322.9	-5341.3	-5777.9
Cash & securities	1565.9	2862.0	2862.0	2862.0	2862.0
Gross debt	15897.6	18429.4	7184.9	8203.3	8639.9
Provisions	3619.6	5112.2	5112.2	5112.2	5112.2
Pension provisions (net)	0.0	0.0	0.0	0.0	0.0
Tax provisions (net)	932.2	2337.4	2337.4	2337.4	2337.4
Restructuring provisions	0.0	0.0	0.0	0.0	0.0
Other provisions	2687.4	2774.8	2774.8	2774.8	2774.8
Net Equity	6456.5	6319.0	7646.3	7941.9	8259.2
Ordinary Shareholders' funds	4860.2	4390.0	5717.3	6012.9	6330.2
Preference shares	0.0	0.0	0.0	0.0	0.0
Minorities	1596.2	1929.0	1929.0	1929.0	1929.0
Total assets (or liabilities)	36276.3	38458.4	25326.2	26883.8	27835.1

# Centrotherm

Profit & Loss (€ mn)	2006	2007	2008	2009e	2010e	2011e
Total sales	71.2	166.2	374.7	553.6	601.2	691.4
Less associate sales	0.0	0.0	0.0	0.0	0.0	0.0
Sales	71.2	166.2	374.7	553.6	601.2	691.4
Variable costs	-53.8	-117.9	-263.8	-358.7	-425.7	-489.5
Gross profit	17.4	48.3	110.9	194.9	175.6	201.9
Administrative expenses	-2.5	-8.7	-27.8	-62.0	-63.1	-65.7
Depreciation	-0.1	-0.4	-14.0	-21.5	-14.9	-14.2
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0	0.0
Other operating Items	-5.4	-18.1	-25.6	-57.1	-26.7	-36.4
Reported EBIT	9.3	21.1	43.5	54.3	70.9	85.6
Income from associates	0.0	0.0	0.0	0.0	0.0	0.0
Other financials	0.0	0.0	0.0	0.0	0.0	0.0
Interest income	0.2	0.7	4.6	2.1	2.1	2.1
Interest expense	-0.1	-0.3	-1.1	-3.1	-2.6	-1.9
Net interest income/(charge)	0.1	0.4	3.5	-1.0	-0.4	0.2
Exceptional Items	0.0	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	9.4	21.5	47.0	53.3	70.5	85.8
Taxation	-3.5	-7.3	-14.6	-16.3	-19.0	-23.2
Minority interest	-0.1	-0.6	0.2	0.0	0.0	0.0
Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0
Reported net income	5.9	13.6	32.5	37.0	51.5	62.5
Dividend	0.0	0.0	0.0	0.0	0.0	0.0
Retained profit	5.9	13.6	32.5	37.0	51.5	62.5

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2006	2007	2008	2009e	2010e	2011e
Reported EBIT	9.3	21.1	43.5	54.3	70.9	85.6
Movement in working capital	-7.6	11.5	23.1	-128.1	-21.6	-26.8
Depreciation (& amortisation if deducted)	0.1	0.4	14.0	21.5	14.9	14.2
Change in provisions/ other items	-2.1	-5.6	-24.1	-6.6	-7.2	-8.3
Operating Cash Flow	-0.3	27.4	56.5	-59.0	57.0	64.7
Financing Activities	0.0	-6.6	-2.6	-17.3	-19.4	-23.1
Net interest expense	0.1	0.4	3.5	-1.0	-0.4	0.2
Dividends paid	0.0	0.0	0.0	0.0	0.0	0.0
Tax paid	-0.1	-7.0	-6.1	-16.3	-19.0	-23.2
Investing Activities	-0.3	-5.7	-37.8	-27.7	-18.0	-20.7
Capital expenditure	-0.3	-5.8	-37.8	-27.7	-18.0	-20.7
Fixed asset / investment sales / other items	0.0	0.0	0.0	0.0	0.0	0.0
BCER free cash flow	-0.6	15.1	16.2	-104.0	19.5	20.9
Other financial items	-3.4	-132.7	-33.5	0.0	0.0	0.0
Net acquisition/disposals	0.0	0.0	0.0	0.0	0.0	0.0
Proceeds from share issues	0.0	134.4	16.6	0.0	0.0	0.0
Other cash flow items	0.0	3.6	0.0	0.0	0.0	0.0
Change in net debt	4.0	-20.4	0.7	104.0	-19.5	-20.9

Balance Sheet (€ mn)	2006	2007	2008	2009e	2010e	2011e
Fixed assets	4.2	10.9	273.0	279.2	282.4	289.9
Goodwill in BS	3.9	3.9	129.3	129.3	129.3	129.3
Other intangibles	0.2	2.6	98.5	98.5	98.5	98.5
Tangible assets	0.2	4.4	44.3	50.4	53.6	61.1
Financial investments	0.0	0.0	0.0	0.0	0.0	0.0
Other LT financial assets	0.0	0.1	1.0	1.0	1.0	1.0
Working capital	6.5	-3.3	-17.1	111.0	132.5	159.3
Inventories	1.4	1.1	23.3	55.4	60.1	69.1
Trade debtors	17.8	56.5	118.3	138.4	150.3	172.8
Cash unavailable for investment	-1.7	-35.0	-109.8	-10.5	0.6	7.6
Trade creditors	-11.0	-25.8	-48.9	-72.3	-78.5	-90.3
Other Debtors/(creditors)	3.6	8.7	-13.0	-13.0	-13.0	-13.0
Other debtors	3.6	10.6	21.2	21.2	21.2	21.2
Other creditors	0.0	-1.9	-34.2	-34.2	-34.2	-34.2
Net cash/(debt)	-1.8	152.6	130.4	33.0	59.8	89.0
Cash & securities	7.2	163.2	180.9	180.9	180.9	180.9
Gross debt	9.0	10.6	50.5	147.8	121.1	91.9
Provisions	5.6	6.8	55.1	55.1	55.1	55.1
Pension provisions (net)	0.0	0.0	0.0	0.0	0.0	0.0
Tax provisions (net)	3.4	5.0	47.7	47.7	47.7	47.7
Restructuring provisions	0.0	0.0	0.0	0.0	0.0	0.0
Other provisions	2.2	1.8	7.4	7.4	7.4	7.4
Net Equity	7.0	162.1	318.2	348.5	392.8	447.0
Ordinary Shareholders' funds	6.9	161.5	318.4	348.7	393.0	447.2
Preference shares	0.0	0.0	0.0	0.0	0.0	0.0
Minorities	0.1	0.7	-0.2	-0.2	-0.2	-0.2
Total assets (or liabilities)	34.2	242.2	616.7	675.0	694.9	734.0

# Clipper

Profit & Loss (US\$ mn)	2005	2006	2007	2008	2009e	2010e	2011e
Total sales	2.7	7.3	23.9	737.3	747.5	503.4	810.8
Less associate sales	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sales	2.7	7.3	23.9	737.3	747.5	503.4	810.8
Variable costs	-14.1	-16.2	-63.1	-753.2	-706.2	-426.0	-662.5
Gross profit	-11.4	-8.9	-39.3	-15.8	41.3	77.4	148.3
Administrative expenses	-6.5	-32.7	-41.0	-79.6	-88.9	-43.4	-44.8
Depreciation	-2.0	-3.6	-9.1	-12.9	-12.0	-12.0	-12.0
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other operating Items	0.0	19.4	-107.5	-203.7	-71.4	-55.0	-54.1
Reported EBIT	-19.8	-25.9	-196.8	-312.0	-131.1	-33.0	37.4
Income from associates	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other financials	-0.2	6.2	7.1	3.1	0.0	0.0	0.0
Interest income	1.4	0.0	0.0	0.0	-4.1	-2.7	-2.7
Interest expense	-2.3	-0.2	-2.2	0.0	0.0	-0.8	-2.1
Net interest income/(charge)	-1.1	6.0	5.0	3.1	-4.1	-3.6	-4.8
Exceptional Items	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	-20.9	-19.9	-191.9	-308.9	-135.2	-36.5	32.6
Taxation	0.3	-0.5	-0.6	-0.1	0.0	0.0	0.0
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reported net income	-20.6	-20.3	-192.5	-308.9	-135.2	-36.5	32.6
Dividend	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Retained profit	-20.6	-20.3	-192.5	-308.9	-135.2	-36.5	32.6

Source: Company data, Barclays Capital

Common Cash Flow (US\$ mn)	2005	2006	2007	2008	2009e	2010e	2011
Reported EBIT	-19.8	-25.9	-196.8	-312.0	-131.1	-33.0	37.4
Movement in working capital	-4.3	52.0	75.2	223.6	-354.0	11.4	-77.7
Depreciation (& amortisation if deducted)	2.0	3.6	9.1	12.9	12.0	12.0	12.0
Change in provisions/ other items	0.7	-5.7	18.2	-31.3	0.0	2.0	2.0
Operating Cash Flow	-21.4	24.1	-94.2	-106.8	-473.1	-7.5	-26.2
Financing Activities	0.0	4.5	6.5	1.4	-4.1	-2.7	-2.7
Net interest expense	0.0	5.5	6.8	1.6	-4.1	-2.7	-2.7
Dividends paid	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tax paid	0.0	-1.0	-0.3	-0.2	0.0	0.0	0.0
Investing Activities	-12.7	-8.0	-18.0	-0.7	-5.2	-3.5	-5.7
Capital expenditure	-12.7	-14.2	-12.5	-20.2	-5.2	-3.5	-5.7
Fixed asset / investment sales / other items	0.0	6.1	-5.5	19.5	0.0	0.0	0.0
BCER free cash flow	-34.1	20.5	-105.7	-106.2	-482.4	-13.8	-34.6
Other financial items	0.0	-0.1	-0.2	-0.2	0.0	0.0	0.0
Net acquisition/disposals	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Proceeds from share issues	135.1	95.0	1.7	197.8	0.0	0.0	0.0
Other cash flow items	0.0	0.0	-0.2	1.2	0.0	0.0	0.0
Change in net debt	-101.0	-115.4	104.4	-92.5	482.4	13.8	34.6

Balance Sheet (US\$ mn)	2005	2006	2007	2008	2009e	2010e	2011e
Fixed assets	15.6	28.3	41.9	79.0	64.8	64.8	64.8
Goodwill in BS	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other intangibles	0.0	0.4	0.7	1.2	1.2	1.2	1.2
Tangible assets	15.5	25.7	32.9	40.9	40.9	40.9	40.9
Financial investments	0.0	2.0	7.8	15.8	1.6	1.6	1.6
Other LT financial assets	0.0	0.2	0.5	21.2	21.2	21.2	21.2
Working capital	2.5	-47.4	-125.0	-241.9	112.1	100.7	178.4
Inventories	6.6	127.2	523.2	557.4	149.5	100.7	162.2
Trade debtors	4.1	51.5	64.1	143.8	89.7	60.4	97.3
Cash unavailable for investment	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trade creditors	-8.1	-226.0	-712.3	-943.1	-127.1	-60.4	-81.1
Trade Creditors	-0.1	-226.0	-/12.5	-945.1	-127.1	-00.4	-01.1
Other Debtors/(creditors)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other debtors	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other creditors	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net cash/(debt)	104.0	218.1	113.7	209.0	-273.5	-287.3	-308.1
Cash & securities	104.0	218.8	114.4	209.0	-273.5	-273.5	-273.5
Gross debt	0.0	0.8	0.7	0.0	0.0	13.8	34.6
Provisions	0.4	0.0	18.3	142.7	141.7	141.7	141.7
Pension provisions (net)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tax provisions (net)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Restructuring provisions	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other provisions	0.4	0.0	18.3	142.7	141.7	141.7	141.7
Net Equity	121.7	199.0	12.3	-99.4	-238.3	-263.5	-206.7
Ordinary Shareholders' funds	121.7	199.0	12.3	-99.4	-238.3	-263.5	-206.7
Preference shares	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minorities	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total assets (or liabilities)	130.2	425.8	743.7	989.2	30.6	-47.5	50.8

# Conergy

Profit & Loss (€ mn)	2007	2008	2009e	2010e	2011e
Total sales	705.5	1006.2	536.5	631.5	676.4
Less associate sales	0.0	0.0	0.0	0.0	0.0
Sales	705.5	1006.2	536.5	631.5	676.4
Variable costs	-612.0	-880.2	-418.5	-467.3	-500.5
Gross profit	93.6	126.0	118.0	164.2	175.9
Personnel expenses	-109.9	-113.5	-90.2	-81.2	-81.2
Depreciation	-42.6	-35.8	-24.2	-23.8	-23.0
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0
Operating exceptional Items	-151.3	-189.2	-61.2	-45.3	-40.6
Reported EBIT	-210.3	-212.5	-57.5	13.8	31.0
Income from associates	0.0	0.0	0.0	0.0	0.0
Other financials	0.0	0.0	0.0	0.0	0.0
Interest income	11.1	3.6	1.2	1.2	1.2
Interest expense	-32.9	-71.4	-24.5	-27.5	-28.3
Net interest income/(charge)	-21.7	-67.8	-23.2	-26.3	-27.0
Exceptional Items	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	-232.0	-280.3	-80.8	-12.4	4.0
Taxation	21.5	26.8	-0.6	0.0	-1.2
Minority interest	-0.5	1.3	1.3	1.3	1.3
Discontinued Operations	0.0	0.0	0.0	0.0	0.0
Reported net income	-248.6	-305.3	-80.1	-11.1	4.1
Dividend	0.0	0.0	0.0	0.0	0.0
Retained profit	-248.6	-305.3	-80.1	-11.1	4.1

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2007	2008	2009e	2010e	2011e
Reported EBIT	-210.3	-212.5	-57.5	13.8	31.0
Depreciation (& amortisation if deducted)	42.6	35.8	24.2	23.8	23.0
Movement in working capital	-62.8	-97.5	51.5	-38.8	-19.6
Change in provisions/ other items	62.8	121.6	0.0	0.0	0.0
Operating Cash Flow	-167.6	-152.6	18.1	-1.1	34.5
Financing Activities	-35.5	-59.5	-25.1	-27.5	-29.5
Net interest expense	-30.8	-59.3	-24.5	-27.5	-28.3
Dividends paid	-3.0	-3.3	0.0	0.0	0.0
Tax paid	-1.8	3.1	-0.6	0.0	-1.2
Investing Activities	-194.5	-21.2	-25.6	-14.5	-15.7
Capital expenditure	-198.5	-34.5	-26.8	-15.8	-16.9
Fixed asset/ investment sales	4.0	13.3	1.2	1.2	1.2
BCER free cash flow	-397.7	-233.3	-32.6	-43.1	-10.7
Other financial items	235.6	-193.6	0.0	0.0	0.0
Net acquisition/disposals	-0.2	0.0	0.0	0.0	0.0
Proceeds from share issues	219.9	399.3	0.0	0.0	0.0
Other cash flow items	-21.1	-29.1	0.0	0.0	0.0
Change in net debt	-36.6	56.7	32.6	43.1	10.7

Balance Sheet (€ mn)	2007	2008	2009e	2010e	2011e
Fixed assets	309.8	319.7	322.4	314.3	308.2
Goodwill in BS	20.7	17.5	17.5	17.5	17.5
Other intangibles	23.4	12.6	12.6	12.6	12.6
Tangible assets	210.9	204.0	206.7	198.6	192.5
Financial investments	4.4	5.3	5.3	5.3	5.3
Other LT financial assets	50.4	80.3	80.3	80.3	80.3
Working capital	382.2	288.2	236.7	275.5	295.1
Inventories	342.4	245.6	131.0	154.1	165.1
Trade debtors	212.7	120.9	147.5	170.5	182.6
Cash unavailable for investment	41.6	32.9	17.5	20.6	22.1
Trade creditors	-214.5	-111.2	-59.3	-69.8	-74.7
Other Debtors/(creditors)	-106.4	-74.7	-74.7	-74.7	-74.7
Other debtors	0.0	0.0	0.0	0.0	0.0
Other creditors	106.4	74.7	74.7	74.7	74.7
Net cash/(debt)	-406.8	-289.5	-322.1	-365.2	-375.9
Cash & securities	61.8	27.7	27.7	27.7	27.7
Gross debt	468.6	317.2	349.8	392.9	403.6
Provisions	53.7	46.9	46.9	46.9	46.9
Pension provisions (net)	0.0	0.0	0.0	0.0	0.0
Tax provisions (net)	20.2	12.2	12.2	12.2	12.2
Restructuring provisions	0.0	0.0	0.0	0.0	0.0
Other provisions	33.5	34.7	34.7	34.7	34.7
Net Equity	125.1	196.8	115.4	103.0	105.8
Ordinary Shareholders' funds	124.5	196.8	115.4	103.0	105.8
Preference shares	0.0	0.0	0.0	0.0	0.0
Minorities	0.7	0.0	0.0	0.0	0.0
Total assets (or liabilities)	1036.1	746.8	646.1	687.3	705.7

# **EDF Energies Nouvelles**

Profit & Loss (€ mn)	2006	2007	2008	2009e	2010e	2011e
Total sales	334.8	560.5	1006.6	995.9	1286.5	1404.4
Less associate sales	0.0	0.0	0.0	0.0	0.0	0.0
Sales	334.8	560.5	1006.6	995.9	1286.5	1404.4
Variable costs	-178.8	-350.8	-584.7	-547.7	-707.6	-772.4
Gross profit	156.0	209.7	421.9	448.2	578.9	632.0
Administrative expenses	-88.1	-114.3	-239.0	-220.1	-284.3	-310.4
Depreciation	-30.1	-44.4	-61.3	-93.2	-130.8	-170.0
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0	0.0
Other operating Items	23.9	44.5	36.9	54.4	86.3	198.6
Reported EBIT	61.7	95.5	158.6	189.2	250.1	350.2
Income from associates	0.0	0.0	0.0	0.0	0.0	0.0
Other financials	-1.8	-3.1	11.7	0.0	0.0	0.0
Interest income	0.0	0.0	0.0	19.0	19.0	19.0
Interest expense	-22.0	-21.6	-54.4	-125.7	-173.9	-213.9
Net interest income/(charge)	-23.8	-24.6	-42.6	-106.7	-154.9	-194.9
Exceptional Items	0.0	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	37.8	70.8	115.9	82.5	95.2	155.3
Taxation	-10.8	-18.4	-37.1	-20.6	-23.8	-38.8
Minority interest	-5.6	-2.3	-7.3	-7.3	-7.3	-7.3
Discontinued Operations	0.4	1.3	-2.0	20.0	0.0	0.0
Reported net income	21.9	51.4	69.6	74.6	64.1	109.2
Dividend	0.0	0.0	0.0	0.0	0.0	0.0
Retained profit	21.9	51.4	69.6	74.6	64.1	109.2

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2006	2007	2008	2009e	2010e	2011e
Reported EBIT	61.7	95.5	158.6	189.2	250.1	350.2
Movement in working capital	12.9	-11.2	-199.0	-65.3	77.9	177.4
Depreciation (& amortisation if deducted)	28.9	43.3	61.7	93.2	130.8	170.0
Change in provisions/ other items	-6.4	9.4	-0.1	20.0	0.0	0.0
Operating Cash Flow	97.0	136.9	21.1	237.1	458.8	697.7
Financing Activities	-32.0	-31.2	-92.0	-146.3	-197.7	-252.7
Net interest expense	-20.9	-16.6	-51.6	-125.7	-173.9	-213.9
Dividends paid	-3.5	-11.0	-19.0	0.0	0.0	0.0
Tax paid	-7.6	-3.6	-21.4	-20.6	-23.8	-38.8
Investing Activities	-314.9	-527.1	-1008.0	-1095.5	-1183.6	-1123.5
Capital expenditure	-317.4	-478.8	-967.6	-1095.5	-1183.6	-1123.5
Fixed asset / investment sales / other items	2.5	-48.2	-40.4	0.0	0.0	0.0
BCER free cash flow	-249.9	-421.4	-1078.9	-1004.7	-922.4	-678.6
Other financial items	92.9	370.7	699.9	0.0	0.0	0.0
Net acquisition/disposals	0.0	0.0	0.0	0.0	0.0	0.0
Proceeds from share issues	514.9	1.1	540.4	0.0	0.0	0.0
Other cash flow items	-13.4	-5.8	-5.8	0.0	0.0	0.0
Change in net debt	-344.4	55.3	-155.7	1004.7	922.4	678.6

Balance Sheet (€ mn)	2006	2007	2008	2009e	2010e	2011e
Fixed assets	1035.4	1515.7	2727.4	3729.7	4782.5	5736.0
Goodwill in BS	41.2	78.3	105.8	105.8	105.8	105.8
Other intangibles	3.6	3.6	11.7	11.7	11.7	11.7
Tangible assets	897.2	1303.3	2260.8	3263.1	4315.9	5269.4
Financial investments	54.4	38.0	91.0	91.0	91.0	91.0
Other LT financial assets	39.1	92.4	258.0	258.0	258.0	258.0
Working capital	64.9	183.1	362.1	448.2	411.7	280.9
Inventories	121.4	128.3	279.2	318.7	283.0	210.7
Trade debtors	52.2	109.5	300.9	278.9	321.6	280.9
Cash unavailable for investment	0.0	0.0	0.0	0.0	0.0	0.0
Trade creditors	-108.7	-54.8	-217.9	-149.4	-193.0	-210.7
Other Debtors/(creditors)	-35.2	-1.9	113.2	111.4	88.9	61.3
Other debtors	115.1	260.5	481.1	460.4	418.9	372.3
Other creditors	-150.3	-262.4	-367.9	-348.9	-330.0	-311.0
Net cash/(debt)	-240.0	-673.4	-1379.3	-2384.0	-3306.4	-3985.0
Cash & securities	402.9	369.3	632.1	632.1	632.1	632.1
Gross debt	642.8	1042.7	2011.5	3016.1	3938.6	4617.1
Provisions	103.0	266.1	332.4	332.4	332.4	332.4
Pension provisions (net)	0.1	0.1	1.5	1.5	1.5	1.5
Tax provisions (net)	36.1	58.7	99.0	99.0	99.0	99.0
Restructuring provisions	0.0	0.0	0.0	0.0	0.0	0.0
Other provisions	66.7	207.3	231.9	231.9	231.9	231.9
Net Equity	722.1	757.3	1491.0	1572.9	1644.3	1760.7
Ordinary Shareholders' funds	709.4	745.3	1268.0	1349.8	1421.2	1537.7
Preference shares	0.0	0.0	0.0	0.0	0.0	0.0
Minorities	12.8	12.0	223.1	223.1	223.1	223.1
Total assets (or liabilities)	1726.9	2383.3	4420.7	5419.7	6438.2	7231.9

**EDP Renovaveis** 

Profit & Loss (€ mn)	2007	2008	2009e	2010e	2011e
Total sales	315.8	532.4	738.7	1067.2	1269.9
Less associate sales	0.0	0.0	0.0	0.0	0.0
Sales	315.8	532.4	738.7	1067.2	1269.9
Variable costs	-19.8	-12.2	-16.9	-24.5	-29.1
Gross profit	296.0	520.2	721.8	1042.8	1240.8
Administrative expenses	-83.2	-145.0	-207.4	-289.0	-343.9
Depreciation	-125.7	-207.8	-264.5	-393.5	-461.7
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0
Other operating Items	17.0	64.2	45.9	50.2	55.1
Reported EBIT	104.1	231.6	295.7	410.4	490.4
Income from associates	2.9	4.4	0.0	0.0	0.0
Other financials	6.7	2.4	0.0	0.0	0.0
Interest income	0.0	0.0	4.6	4.6	4.6
Interest expense	-104.3	-77.2	-80.1	-119.5	-159.7
Net interest income/(charge)	-94.7	-70.4	-75.5	-114.9	-155.1
Exceptional Items	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	9.4	161.2	220.2	295.5	335.3
Taxation	-3.1	-49.0	-66.1	-82.8	-93.9
Minority interest	-2.4	0.0	0.0	0.0	0.0
Discontinued Operations	0.0	0.0	0.0	0.0	0.0
Reported net income	4.0	112.2	154.2	212.8	241.4
Dividend	0.0	0.0	0.0	0.0	0.0
Retained profit	4.0	112.2	154.2	212.8	241.4

Common Cash Flow (€ mn)	2008	2009e	2010e	2011e
Reported EBIT	231.6	295.7	410.4	490.4
Movement in working capital	0.0	63.7	329.7	240.9
Depreciation (& amortisation if deducted)	0.0	264.5	393.5	461.7
Change in provisions/ other items	6.8	0.0	0.0	0.0
Operating Cash Flow	238.4	624.0	1133.6	1193.0
Financing Activities	-129.0	-141.6	-197.6	-249.0
Net interest expense	-77.2	-75.5	-114.9	-155.1
Dividends paid	-2.8	0.0	0.0	0.0
Tax paid	-49.0	-66.1	-82.8	-93.9
Investing Activities	-1934.7	-1690.0	-2000.0	-2200.0
Capital expenditure	-1919.8	-1690.0	-2000.0	-2200.0
Fixed asset / investment sales / other items	-14.9	0.0	0.0	0.0
BCER free cash flow	-1825.2	-1207.6	-1064.0	-1256.0
Other financial items	-60.1	0.0	0.0	0.0
Net acquisition/disposals	0.0	0.0	0.0	0.0
Proceeds from share issues	1539.0	0.0	0.0	0.0
Other cash flow items	0.0	0.0	0.0	0.0
Change in net debt	346.4	1207.6	1064.0	1256.0

Balance Sheet (€ mn)	2007	2008	2009e	2010e	2011e
Fixed assets	6165.0	8664.2	10089.7	11696.2	13434.5
Goodwill in BS	0.0	0.0	0.0	0.0	0.0
Other intangibles	1268.0	1394.8	1394.8	1394.8	1394.8
Tangible assets	4839.0	7052.8	8478.3	10084.8	11823.1
Financial investments	40.0	194.8	194.8	194.8	194.8
Other LT financial assets	18.0	21.8	21.8	21.8	21.8
Working capital	-463.0	-1877.8	-1941.6	-2271.2	-2512.1
Inventories	39.0	12.4	14.8	21.3	25.4
Trade debtors	360.0	453.5	629.3	909.1	1081.7
Cash unavailable for investment	0.0	0.0	0.0	0.0	0.0
Trade creditors	-862.0	-2343.7	-2585.6	-3201.6	-3619.3
Other Debtors/(creditors)	45.0	36.8	36.8	36.8	36.8
Other debtors	45.0	36.8	36.8	36.8	36.8
Other creditors	0.0	0.0	0.0	0.0	0.0
Net cash/(debt)	-2494.0	-1232.6	-2440.2	-3504.2	-4760.2
Cash & securities	388.0	229.7	229.7	229.7	229.7
Gross debt	2882.0	1462.3	2669.9	3733.9	4989.9
Provisions	1035.0	400.5	400.5	400.5	400.5
Pension provisions (net)	0.0	0.0	0.0	0.0	0.0
Tax provisions (net)	278.0	349.6	349.6	349.6	349.6
Restructuring provisions	733.0	0.0	0.0	0.0	0.0
Other provisions	24.0	50.9	50.9	50.9	50.9
Net Equity	2218.0	5190.1	5344.3	5557.1	5798.5
Ordinary Shareholders' funds	2032.0	5107.4	5261.5	5474.3	5715.7
Preference shares	0.0	0.0	0.0	0.0	0.0
Minorities	186.0	82.8	82.8	82.8	82.8
Total assets (or liabilities)	6997.0	9396.6	11000.2	12893.1	14808.1

### Gamesa

Profit & Loss (€ mn)	2007	2008	2009e	2010e	2011e
Total sales	3,260	3,901	2,988	3,585	4,061
Less associate sales	0	0	0	0	0
Sales	3,260	3,901	2,988	3,585	4,061
Variable costs	(2,347)	(2,808)	(1,987)	(2,384)	(2,700)
Gross profit	913	1,093	1,001	1,201	1,360
Personnel expenses	(241)	(267)	(246)	(271)	(298)
Depreciation	(218)	(288)	(77)	(80)	(85)
Goodwill amortisation	0	0	0	0	0
Operating exceptional Items	(204)	(331)	(490)	(593)	(593)
Reported EBIT	250	208	189	257	384
Income from associates	0	0	0	0	0
Other financials	0	0	0	0	0
Interest income	32	23	32	32	32
Interest expense	(80)	(71)	(27)	(26)	(20)
Net interest income/(charge)	(47)	(48)	4	5	12
Exceptional Items	0	0	0	0	0
Reported pre-tax income	203	159	193	262	396
Taxation	20	(2)	(29)	(42)	(63)
Minority interest	0	0	0	0	0
Discontinued Operations	0	165	0	0	0
Reported net income	223	322	164	220	332
Dividend	(28)	(20)	(21)	(28)	(42)
Retained profit	195	302	144	192	290

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2007	2008	2009e	2010e	2011e
Reported EBIT	250	208	189	257	384
Depreciation (& amortisation if deducted)	218	288	175	199	219
Movement in working capital	167	2	(326)	(93)	(251)
Change in provisions/ other items	(30)	3	0	0	0
Operating Cash Flow	604	500	39	362	352
Financing Activities	(130)	(121)	(41)	(57)	(86)
Net interest expense	(80)	(46)	0	0	0
Dividends paid	(50)	(56)	(21)	(28)	(42)
Tax paid	0	(19)	(20)	(29)	(44)
Investing Activities	(94)	(103)	(96)	(108)	(122)
Capital expenditure	(97)	(41)	(96)	(108)	(122)
Fixed asset/ investment sales	3	(63)	0	0	0
BCER free cash flow	380	277	(98)	197	144
Other financial items	(40)	(152)	0	0	0
Net acquisition/disposals	4	14	0	0	0
Proceeds from share issues	0	0	0	0	0
Other cash flow items	0	0	0	0	0
Change in net debt	344.3	138.5	-97.9	197.3	143.5

Balance Sheet (€ mn)	2007	2008	2009e	2010e	2011e
Fixed assets	867	894	913	940	977
Goodwill in BS	387	311	311	311	311
Other intangibles	132	136	140	147	157
Tangible assets	279	331	346	367	393
Financial investments	69	115	115	115	115
Other LT financial assets	0	0	0	0	0
Working capital	515	449	456	490	717
Inventories	702	828	747	717	812
Trade debtors	1,553	1,196	916	1,099	1,245
Cash unavailable for investment	0	0	0	0	0
Trade creditors	(1,740)	(1,576)	(1,207)	(1,326)	(1,340)
Other Debtors/creditors	237	(277)	120	180	203
Other debtors	454	294	225	270	306
Other creditors	(217)	(571)	(105)	(90)	(102)
Net cash/(debt)	(213)	43	(80)	81	173
Cash & securities	628	530	530	530	530
Gross debt	(840)	(487)	(609)	(448)	(357)
Provisions	203	371	371	371	371
Pension provisions (net)	0	0	0	0	0
Tax provisions (net)	0	0	0	0	0
Restructuring provisions	0	0	0	0	0
Other provisions	203	371	371	371	371
Net Equity	1,204	817	1,039	1,320	1,700
Ordinary Shareholders' funds	1,201	823	1,045	1,326	1,706
Preference shares	0	0	0	0	0
Minorities	2	(7)	(7)	(7)	(7)
Total assets (or liabilities)	4,204	3,742	3,331	3,556	3,869

## Greentech

Profit & Loss (DKR mn)	2006	2007	2008	2009e	2010e	2011e
Total sales	14.7	51.3	83.6	85.3	261.0	410.4
Less associate sales	0.0	0.0	0.0	0.0	0.0	0.0
Sales	14.7	51.3	83.6	85.3	261.0	410.4
Variable costs	-8.9	-28.2	-49.5	-43.5	-120.6	-189.6
Gross profit	5.7	23.0	34.1	41.8	140.4	220.8
Administrative expenses	-5.7	1.1	9.6	-8.5	-13.0	-20.5
Depreciation	-6.8	-20.7	-29.2	-29.7	-6.7	-14.8
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0	0.0
Other operating Items	1.0	0.0	-13.2	-234.0	-17.0	-20.7
Reported EBIT	-5.8	3.4	1.3	-230.4	103.7	164.9
Income from associates	-0.1	1.2	1.8	0.0	0.0	0.0
Other financials	0.0	0.0	0.0	0.0	0.0	0.0
Interest income	1.7	14.7	12.0	2.6	2.6	2.6
Interest expense	-8.7	-24.1	-24.5	-42.9	-74.3	-99.1
Net interest income/(charge)	-7.1	-8.2	-10.8	-40.3	-71.7	-96.4
Exceptional Items	0.0	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	-12.9	-4.8	-9.5	-270.7	32.0	68.4
Taxation	0.0	4.7	-1.9	0.0	0.0	0.0
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0
Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0
Reported net income	-12.9	-0.1	-11.3	-270.7	32.0	68.4
Dividend	0.0	0.0	0.0	0.0	0.0	0.0
Retained profit	-12.9	-0.1	-11.3	-270.7	32.0	68.4

Source: Company data, Barclays Capital

Common Cash Flow (DKR mn)	2006	2007	2008	2009e	2010e	2011e
Reported EBIT	-5.8	3.4	1.3	-230.4	103.7	164.9
Movement in working capital	-12.8	-120.8	-30.7	-0.6	-62.8	-53.5
Depreciation (& amortisation if deducted)	6.8	20.7	29.3	29.7	6.7	14.8
Change in provisions/ other items	0.0	0.0	0.0	233.7	0.0	0.0
Operating Cash Flow	-11.8	-96.6	-0.1	32.4	47.6	126.2
Financing Activities	-7.0	-4.7	-6.9	-40.3	-71.7	-96.4
Net interest expense	-7.0	-9.4	-6.8	-40.3	-71.7	-96.4
Dividends paid	0.0	0.0	0.0	0.0	0.0	0.0
Tax paid	0.0	4.7	-0.1	0.0	0.0	0.0
Investing Activities	-88.7	-624.3	-984.5	-142.7	-261.0	-410.4
Capital expenditure	-88.7	-554.8	-979.8	-256.0	-261.0	-410.4
Fixed asset / investment sales / other items	0.0	-69.5	-4.7	113.4	0.0	0.0
BCER free cash flow	-107.5	-725.6	-991.5	-150.6	-285.1	-380.7
Other financial items	28.4	-74.0	384.6	0.0	0.0	0.0
Net acquisition/disposals	0.0	0.0	0.0	0.0	0.0	0.0
Proceeds from share issues	86.5	1463.8	0.0	0.0	0.0	0.0
Other cash flow items	0.0	0.0	0.0	0.0	0.0	0.0
Change in net debt	-7.4	-664.3	606.9	150.6	285.1	380.7

Balance Sheet (DKR mn)	2006	2007	2008	2009e	2010e	2011e
Fixed assets	372.7	1450.7	2612.3	2491.5	2745.8	3141.5
Goodwill in BS	0.0	0.0	0.0	0.0	0.0	0.0
Other intangibles	0.0	0.0	0.0	0.0	0.0	0.0
Tangible assets	343.2	1383.6	2433.6	2312.8	2567.1	2962.8
Financial investments	29.4	67.1	178.7	178.7	178.7	178.7
Other LT financial assets	0.0	0.0	0.0	0.0	0.0	0.0
Working capital	-1.1	6.7	11.2	10.9	-16.5	-39.9
Inventories	0.0	0.0	0.0	0.0	0.0	0.0
Trade debtors	3.1	19.2	29.3	29.4	40.1	49.3
Cash unavailable for investment	0.0	0.0	0.0	0.0	0.0	0.0
Trade creditors	-4.2	-12.5	-18.2	-18.5	-56.7	-89.1
Other Debtors/(creditors)	-4.2	-6.6	16.3	17.1	107.4	184.2
Other debtors	8.8	50.3	74.4	75.3	165.5	242.3
Other creditors	-13.0	-57.0	-58.1	-58.1	-58.1	-58.1
Net cash/(debt)	-121.1	471.1	-619.9	-770.5	-1055.6	-1436.3
Cash & securities	35.4	695.0	87.7	87.7	87.7	87.7
Gross debt	156.5	224.0	707.7	858.2	1143.3	1524.0
Provisions	1.7	3.7	10.9	10.9	10.9	10.9
Pension provisions (net)	0.0	0.0	0.0	0.0	0.0	0.0
Tax provisions (net)	0.0	0.0	5.2	5.2	5.2	5.2
Restructuring provisions	0.0	0.0	0.0	0.0	0.0	0.0
Other provisions	1.7	3.7	5.7	5.7	5.7	5.7
Net Equity	244.5	1918.1	2008.9	1738.2	1770.2	1838.6
Ordinary Shareholders' funds	244.5	1917.2	2008.2	1737.5	1769.5	1837.9
Preference shares	0.0	0.0	0.0	0.0	0.0	0.0
Minorities	0.0	0.9	0.7	0.7	0.7	0.7
Total assets (or liabilities)	419.9	2215.3	2803.7	2683.9	3039.2	3520.8

### Hansen

Profit & Loss (€ mn)	2006	2007	2008	2009	2010e	2011e	2012e
Total sales	285.4	335.6	421.5	609.2	610.3	775.7	997.6
Less associate sales	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sales	285.4	335.6	421.5	609.2	610.3	775.7	997.6
Variable costs	-165.1	-202.6	-278.8	-424.7	-452.0	-561.0	-704.4
Gross profit	120.3	132.9	142.7	184.5	158.2	214.6	293.2
Personnel expenses	-69.4	-80.3	-88.5	-90.3	-94.0	-97.8	-101.7
Depreciation	-10.8	-11.8	-18.8	-29.8	-38.0	-42.0	-43.0
Goodwill amortisation	-1.0	-1.2	0.0	0.0	0.0	0.0	0.0
Operating Items	-3.8	-0.7	6.9	-0.5	-2.6	-0.8	-25.9
Reported EBIT	35.3	39.0	42.3	63.9	23.7	74.0	122.5
Income from associates	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other financials	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interest income	0.3	0.5	6.8	10.4	1.9	1.9	1.9
Interest expense	-5.1	-5.3	-14.6	-12.1	-21.2	-19.1	-17.8
Net interest income/(charge)	-4.8	-4.8	-7.8	-1.7	-19.3	-17.2	-15.9
Exceptional Items	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	30.5	34.2	34.5	62.2	4.4	56.9	106.6
Taxation	-10.9	-9.9	-3.2	-17.1	-1.9	-10.8	-18.9
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reported net income	19.7	24.3	31.3	45.1	2.6	46.1	87.7
Dividend	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Retained profit	19.7	24.3	31.3	45.1	2.6	46.1	87.7

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2006	2007	2008	2009	2010e	2011e	2012e
Reported EBIT	35.3	39.0	42.3	63.9	23.7	74.0	122.5
Depreciation (& amortisation if deducted)	11.8	12.9	18.8	29.8	38.0	42.0	43.0
Movement in working capital	-11.9	-62.4	-3.6	-129.5	29.6	-44.1	-75.6
Change in provisions/ other items	0.9	2.0	-2.8	-0.7	0.0	0.0	0.0
Operating Cash Flow	36.2	-8.5	54.7	-36.5	91.2	71.9	89.9
Investing Activities	-12.1	-62.4	-169.3	-243.7	-149.5	-54.3	-61.9
Capital expenditure	-12.2	-62.4	-169.5	-243.7	-149.5	-54.3	-61.9
Fixed asset/ investment sales	0.1	0.1	0.2	0.0	0.0	0.0	0.0
Financing Activities	-7.6	-10.5	-8.8	-18.8	-12.9	-22.2	-30.8
Dividends paid	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tax paid	-4.3	-4.7	-0.8	-17.1	-1.9	-10.8	-18.9
Net interest expense	-3.3	-5.8	-8.0	-1.7	-11.0	-11.4	-11.9
BCER free cash flow	16.4	-81.3	-123.3	-299.0	-71.2	-4.5	-2.7
Other cash flow items	-1.7	89.6	411.6	-0.1	0.0	0.0	0.0
Other financial items	-1.4	88.2	52.0	0.0	0.0	0.0	0.0
Net acquisition/disposals	0.0	0.0	-1.5	0.0	0.0	0.0	0.0
Proceeds from share issues	0.0	0.0	440.0	0.0	0.0	0.0	0.0
Other cash flow items	-0.3	1.4	-79.0	-0.1	0.0	0.0	0.0
Change in net debt	-14.8	-8.3	-288.3	299.0	71.2	4.5	2.7

Balance Sheet (€ mn)	2006	2007	2008	2009	2010e	2011e	2012e
Fixed assets	152.5	200.2	353.8	542.0	653.5	665.8	684.7
Goodwill in BS	6.2	5.8	6.1	6.1	6.1	6.1	6.1
Other intangibles	3.1	2.7	2.9	5.2	5.2	5.2	5.2
Tangible assets	140.1	189.9	343.1	529.1	640.7	653.0	671.8
Financial investments	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other LT financial assets	3.1	1.7	1.7	1.6	1.6	1.6	1.6
Working capital	63.9	59.2	98.1	228.1	198.5	236.8	304.6
Inventories	51.0	68.4	136.2	209.0	189.2	224.9	289.3
Trade debtors	64.0	72.3	88.5	182.0	182.3	231.8	298.1
Cash unavailable for investment	-1.7	-3.1	-4.1	-2.1	-2.1	-2.7	-3.5
Trade creditors	-49.4	-78.4	-122.4	-160.8	-170.9	-217.2	-279.3
Other Debtors/(creditors)	-0.3	66.6	29.0	24.4	24.4	30.3	38.1
Other debtors	4.0	70.1	34.5	34.1	34.1	40.0	47.8
Other creditors	4.3	3.5	5.5	9.7	9.7	9.7	9.7
Net cash/(debt)	-23.1	-101.7	132.7	-124.1	-196.6	-206.0	-217.5
Cash & securities	30.5	38.8	325.5	126.4	126.4	126.4	126.4
Gross debt	53.6	140.5	192.8	250.5	323.0	332.4	343.9
Provisions	54.2	62.2	66.4	86.5	86.5	86.5	86.5
Pension provisions (net)	18.2	20.4	23.1	26.5	26.5	26.5	26.5
Tax provisions (net)	24.3	25.6	28.9	42.5	42.5	42.5	42.5
Restructuring provisions	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other provisions	11.7	16.3	14.4	17.5	17.5	17.5	17.5
Net Equity	138.8	162.0	547.1	583.8	593.3	640.3	723.3
Ordinary Shareholders' funds	138.8	162.0	547.1	583.8	593.3	640.3	723.3
Preference shares	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minorities	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total assets (or liabilities)	302.0	449.8	938.4	1093.5	1185.6	1288.9	1446.3

## Iberdrola Renovables

Profit & Loss (€ mn)	2007	2008	2009e	2010e	2011e
Total sales	953.0	2030.3	2334.2	2684.7	3117.9
Less associate sales	0.0	0.0	0.0	0.0	0.0
Sales	953.0	2030.3	2334.2	2684.7	3117.9
Variable costs	-130.2	-409.2	-396.8	-402.7	-467.7
Gross profit	822.8	1621.1	1937.4	2282.0	2650.2
Administrative expenses	-264.0	-448.4	-515.5	-592.9	-688.6
Depreciation	-217.0	-475.9	-572.4	-635.4	-716.4
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0
Other operating Items	5.1	34.1	-61.2	-80.2	15.3
Reported EBIT	346.9	730.9	788.3	973.5	1260.5
Income from associates	-0.6	0.1	0.0	0.0	0.0
Other financials	1.5	-5.6	0.0	0.0	0.0
Interest income	40.4	113.4	113.4	114.8	114.8
Interest expense	-192.2	-235.2	-257.8	-274.5	-409.5
Net interest income/(charge)	-150.9	-127.3	-144.4	-159.7	-294.7
Exceptional Items	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	196.0	603.6	643.8	813.7	965.8
Taxation	-67.2	-184.9	-206.0	-260.4	-309.0
Minority interest	-11.2	-7.2	-7.2	-7.2	-7.2
Discontinued Operations	0.0	0.0	0.0	0.0	0.0
Reported net income	117.5	390.2	430.6	546.1	649.5
Dividend	0.0	84.5	0.0	0.0	0.0
Retained profit	117.5	305.7	430.6	546.1	649.5

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2007	2008	2009e	2010e	2011e
Reported EBIT	346.9	730.9	788.3	973.5	1260.5
Movement in working capital	-1052.6	795.4	-23.8	-27.4	-33.9
Depreciation (& amortisation if deducted)	261.0	475.9	572.4	635.4	716.4
Change in provisions/ other items	154.3	52.8	0.0	0.0	0.0
Operating Cash Flow	-290.4	2055.0	1336.9	1581.4	1943.0
Financing Activities	-316.2	-306.7	-350.5	-420.1	-603.8
Net interest expense	-151.9	-121.8	-144.4	-159.7	-294.7
Dividends paid	-97.1	0.0	0.0	0.0	0.0
Tax paid	-67.2	-184.9	-206.0	-260.4	-309.0
Investing Activities	-2233.7	-4161.3	-2000.0	-2200.0	-3000.0
Capital expenditure	-2085.8	-3880.3	-2000.0	-2200.0	-3000.0
Fixed asset / investment sales / other items	-147.9	-281.0	0.0	0.0	0.0
BCER free cash flow	-2840.4	-2413.0	-1013.6	-1038.7	-1660.7
Other financial items	-2372.9	2507.1	0.0	0.0	0.0
Net acquisition/disposals	0.0	0.0	0.0	0.0	0.0
Proceeds from share issues	5304.4	0.0	0.0	0.0	0.0
Other cash flow items	0.0	0.0	0.0	0.0	0.0
Change in net debt	-91.2	-94.1	1013.6	1038.7	1660.7

Balance Sheet (€ mn)	2007	2008	2009e	2010e	2011e
Fixed assets	14933.6	18072.7	19500.3	21064.9	23348.5
Goodwill in BS	0.0	0.0	0.0	0.0	0.0
Other intangibles	4672.8	4492.9	4492.9	4492.9	4492.9
Tangible assets	9695.5	12874.8	14302.4	15867.0	18150.6
Financial investments	300.7	341.2	341.2	341.2	341.2
Other LT financial assets	264.7	363.8	363.8	363.8	363.8
Working capital	-788.3	-1646.0	-2106.1	-2078.7	-2044.8
Inventories	200.2	221.0	254.1	292.2	339.4
Trade debtors	1617.9	614.3	706.2	812.3	943.4
Cash unavailable for investment	0.0	0.0	0.0	0.0	0.0
Trade creditors	-2606.4	-2481.3	-3066.5	-3183.2	-3327.5
Other Debtors/(creditors)	356.0	-1304.3	-1304.3	-1304.3	-1304.3
Other debtors	689.5	1021.3	1021.3	1021.3	1021.3
Other creditors	-333.6	-2325.6	-2325.6	-2325.6	-2325.6
Net cash/(debt)	-828.8	-925.2	-1938.8	-2977.5	-4638.3
Cash & securities	214.0	286.9	286.9	286.9	286.9
Gross debt	1042.8	1212.1	2225.7	3264.4	4925.2
Provisions	2754.1	3008.9	3008.9	3008.9	3008.9
Pension provisions (net)	143.4	146.2	146.2	146.2	146.2
Tax provisions (net)	1866.7	1955.9	1955.9	1955.9	1955.9
Restructuring provisions	0.0	0.0	0.0	0.0	0.0
Other provisions	743.9	906.8	906.8	906.8	906.8
Net Equity	10918.5	11188.3	11626.1	12179.4	12836.1
Ordinary Shareholders' funds	10783.9	11114.8	11552.6	12105.9	12762.6
Preference shares	0.0	0.0	0.0	0.0	0.0
Minorities	134.6	73.5	73.5	73.5	73.5
Total assets (or liabilities)	17655.2	20216.2	21768.8	23477.7	25939.4

### **Manz Automation**

Profit & Loss (€ mn)	2006	2007	2008	2009e	2010e	2011e
Total sales	43.8	71.2	236.5	82.3	120.1	173.4
Less associate sales	0.0	0.0	0.0	0.0	0.0	0.0
Sales	43.8	71.2	236.5	82.3	120.1	173.4
Variable costs	-21.7	-45.7	-125.6	-42.5	-67.1	-101.8
Gross profit	22.1	25.5	110.9	39.7	53.0	71.6
Administrative expenses	-11.3	-16.6	-41.7	-36.2	-36.0	-39.0
Depreciation	-1.2	-1.6	-5.5	-8.0	-7.3	-6.8
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0	0.0
Other operating Items	-4.8	2.7	-35.1	-8.8	-1.9	-13.4
Reported EBIT	4.9	10.0	28.6	-13.3	7.8	12.4
Income from associates	0.0	0.0	0.0	0.0	0.0	0.0
Other financials	0.0	0.0	0.0	0.0	0.0	0.0
Interest income	0.1	0.8	2.0	1.9	2.7	2.2
Interest expense	-0.9	-0.3	-2.1	-2.1	-2.1	-2.1
Net interest income/(charge)	-0.8	0.5	-0.1	-0.2	0.6	0.1
Exceptional Items	0.0	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	4.1	10.6	28.5	-13.5	8.3	12.5
Taxation	-1.3	-2.3	-7.3	4.0	-2.5	-3.7
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0
Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0
Reported net income	2.8	8.2	21.2	-9.4	5.8	8.7
Dividend	0.0	0.0	0.0	0.0	0.0	0.0
Retained profit	2.8	8.2	21.2	-9.4	5.8	8.7

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2006	2007	2008	2009e	2010e	2011e
Reported EBIT	4.9	10.0	28.6	-13.3	7.8	12.4
Movement in working capital	-1.5	-5.7	-45.0	34.3	14.6	-25.8
Depreciation (& amortisation if deducted)	1.2	1.6	5.5	8.0	7.3	6.8
Change in provisions/ other items	0.1	0.1	1.6	0.0	0.0	0.0
Operating Cash Flow	4.5	6.1	-9.3	29.0	29.6	-6.6
Financing Activities	-2.1	-1.8	-7.5	3.9	-1.9	-3.6
Net interest expense	-0.7	0.5	-0.1	-0.2	0.6	0.1
Dividends paid	0.0	0.0	0.0	0.0	0.0	0.0
Tax paid	-1.3	-2.3	-7.3	4.0	-2.5	-3.7
Investing Activities	-2.0	-19.9	-73.7	-2.5	-3.6	-5.2
Capital expenditure	-2.0	-4.9	-12.1	-2.5	-3.6	-5.2
Fixed asset / investment sales / other items	-0.1	-14.9	-61.5	0.0	0.0	0.0
BCER free cash flow	0.4	-15.6	-90.4	30.4	24.1	-15.5
Other financial items	0.0	0.0	0.0	0.0	0.0	0.0
Net acquisition/disposals	0.0	0.0	0.0	0.0	0.0	0.0
Proceeds from share issues	14.0	22.1	108.3	0.0	0.0	0.0
Other cash flow items	-2.1	-0.1	-2.6	0.0	0.0	0.0
Change in net debt	-12.3	-6.4	-15.2	-30.4	-24.1	15.5

Balance Sheet (€ mn)	2006	2007	2008	2009e	2010e	2011e
Fixed assets	11.3	9.1	60.4	54.9	51.2	49.5
Goodwill in BS	0.0	0.0	0.0	0.0	0.0	0.0
Other intangibles	3.9	5.8	42.9	37.9	34.2	32.0
Tangible assets	7.4	3.0	16.1	15.6	15.6	16.2
Financial investments	0.0	0.3	0.3	0.3	0.3	0.3
Other LT financial assets	0.0	0.0	1.1	1.1	1.1	1.1
Working capital	9.3	18.2	107.0	72.8	58.1	84.0
Inventories	5.4	14.7	33.0	28.8	24.0	34.7
Trade debtors	11.0	23.0	101.4	53.5	48.0	69.4
Cash unavailable for investment	-4.1	-14.1	-3.3	-1.2	-1.7	-2.4
Trade creditors	-3.0	-5.4	-24.0	-8.4	-12.2	-17.6
Other Debtors/(creditors)	-5.6	1.8	5.5	5.5	5.5	5.5
Other debtors	0.6	1.9	5.7	5.7	5.7	5.7
Other creditors	-6.2	-0.1	-0.1	-0.1	-0.1	-0.1
Net cash/(debt)	10.6	31.6	41.5	71.9	96.0	80.5
Cash & securities	12.5	33.4	65.9	96.2	120.3	104.9
Gross debt	2.0	1.8	24.3	24.3	24.3	24.3
Provisions	3.9	8.1	23.3	23.3	23.3	23.3
Pension provisions (net)	0.0	0.1	3.7	3.7	3.7	3.7
Tax provisions (net)	2.4	4.4	11.0	11.0	11.0	11.0
Restructuring provisions	0.0	0.0	0.0	0.0	0.0	0.0
Other provisions	1.5	3.7	8.5	8.5	8.5	8.5
Net Equity	21.7	52.6	181.9	172.4	178.2	187.0
Ordinary Shareholders' funds	21.7	52.6	181.9	172.4	178.2	187.0
Preference shares	0.0	0.0	0.0	0.0	0.0	0.0
Minorities	0.0	0.0	0.0	0.0	0.0	0.0
Total assets (or liabilities)	40.8	82.2	266.3	239.0	249.2	264.1

## Nordex

Profit & Loss (€ mn)	2007	2008	2009e	2010e	2011e
Total sales	747	1,135.7	1,171.6	1,283.2	1,465.2
Less associate sales	0	0.0	0.0	0.0	0.0
Sales	747	1,135.7	1,171.6	1,283.2	1,465.2
Variable costs	(638)	(975.1)	(1,010.8)	(1,105.6)	(1,266.0)
Gross profit	109	160.6	160.9	177.6	199.2
Personnel expenses	(55)	(81.7)	(106.7)	(111.6)	(116.4)
Depreciation	(14)	(15.9)	(17.7)	(17.9)	(18.7)
Goodwill amortisation	0	0.0	0.0	0.0	0.0
Operating exceptional Items	0	0.0	0.0	0.0	0.0
Exceptional Items	0	0.0	0.0	0.0	0.0
Reported EBIT	40	63.0	36.4	48.2	64.1
% EBIT margins		5.5%	3.1%	3.8%	4.4%
Income from associates	0	0.0	0.0	0.0	0.0
Other financials	(1)	(0.0)	(0.6)	(0.4)	(0.2)
Interest income	5	6.3	2.0	2.0	2.0
Interest expense	(5)	(5.3)	(4.5)	(4.5)	(4.5)
Net interest income/(charge)	(0)	1.0	(2.5)	(2.5)	(2.5)
Reported pre-tax income	39	64.0	33.4	45.3	61.4
Taxation	9	(14.4)	(10.0)	(13.6)	(18.4)
Discontinued Operations	0	0.0	0.0	0.0	0.0
Minority interest	1	0.0	0.0	0.0	0.0
Reported net income	49	49.5	23.4	31.7	43.0
Dividend	0	0.0	0.0	0.0	0.0
Retained profit	49	49.5	23.4	31.7	43.0

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2007	2008	2009e	2010e	2011e
Reported EBIT	40	63	36	48	64
Depreciation (& amortisation if deducted)	15	16	18	18	19
Movement in working capital	(26)	(169)	(48)	(56)	(93)
Change in provisions/ other items	(8)	44	0	0	0
Operating Cash Flow	21	(46)	6	10	(10)
Financing Activities	8	(13)	(13)	(16)	(21)
Net interest expense	(1)	1	(3)	(3)	(3)
Dividends paid	0	0	0	0	0
Tax paid	9	(14)	(10)	(14)	(18)
Investing Activities	(28)	(70)	(50)	(51)	(44)
Capital expenditure	(28)	(72)	(50)	(51)	(44)
Fixed asset/ investment sales	1	2	0	0	0
BCER free cash flow	1	(130)	(58)	(58)	(75)
Other financial items	0	0	0	0	0
Net acquisition/disposals	3	(0)	0	0	0
Proceeds from share issues	76	0	0	0	0
Other cash flow items	(0)	31	0	0	0
Change in net debt	80	(99)	(58)	(58)	(75)

Balance Sheet (€ mn)	2007	2008	2009e	2010e	2011e
Fixed assets	74	128.9	159.3	192.3	217.4
Goodwill in BS	10	10.0	10.0	10.0	10.0
Other intangibles	19	29.7	21.9	16.2	12.0
Tangible assets	35	78.8	119.3	158.4	187.9
Financial investments	4	6.7	4.4	4.0	3.8
Other LT financial assets	6	3.7	3.7	3.7	3.7
Working capital	(13)	139.1	187.5	243.8	337.0
Inventories	232	372.2	304.6	308.0	410.3
Trade debtors	99	103.4	117.2	128.3	146.5
Cash unavailable for investment	(265)	(203.9)	(117.2)	(128.3)	(146.5)
Trade creditors	(79)	(132.6)	(117.2)	(64.2)	(73.3)
Other Debtors/creditors	5	(8.8)	(8.8)	(8.8)	(8.8)
Other debtors	36	82.3	82.3	82.3	82.3
Other creditors	(31)	(91.1)	(91.1)	(91.1)	(91.1)
Net cash/(debt)	211	111.7	54.0	(4.0)	(79.5)
Cash & securities	212	111.7	113.0	55.0	(20.5)
Gross debt	(1)	0.0	(59.0)	(59.0)	(59.0)
Provisions	(5)	(46.5)	(46.5)	(46.5)	(46.5)
Pension provisions (net)	(0)	(0.5)	(0.5)	(0.5)	(0.5)
Tax provisions (net)	29	18.9	18.9	18.9	18.9
Restructuring provisions	0	0.0	0.0	0.0	0.0
Other provisions	(34)	(64.9)	(64.9)	(64.9)	(64.9)
Net Equity	272	324.4	345.5	376.9	419.6
Ordinary Shareholders' funds	270	321.1	342.2	373.5	416.3
Preference shares	0	0.0	0.0	0.0	0.0
Minorities	1	3.3	3.3	3.3	3.3
Total assets (or liabilities)	653	798.4	776.4	765.9	835.9

### Outotec

Profit and Loss (€ mn)	2006	2007	2008	2009e	2010e	2011e
Total sales	740	1,000	1,218	880	860	956
Less associate sales	0	0	0	0	0	0
Sales	740	1,000	1,218	880	860	956
Variable costs	(594)	(712)	(1,087)	(574)	(611)	(670)
Gross profit	147	288	131	306	249	286
Personnel expenses	(94)	(180)	0	(220)	(155)	(172)
Depreciation	0	(12)	(11)	(16)	(17)	(18)
Goodwill amortisation	0	0	0	0	0	0
Operating exceptional Items	(1)	0	0	0	0	0
Exceptional Items	0	0	0	0	0	0
Reported EBIT	51	96	120	70	78	96
Income from associates	(1)	(1)	0	0	0	0
Other financials	(4)	(4)	(0)	0	0	0
Interest income	4	13	16	5	6	6
Interest expense	(2)	(0)	0	(3)	(4)	(4)
Net interest income/(charge)	2	12	16	2	2	2
Reported pre-tax income	49	105	136	72	80	98
Taxation	(20)	(27)	(42)	(23)	(25)	(31)
Discontinued Operations	0	0	0	0	0	0
Minority interest	0	0	0	0	0	0
Reported net income	29	78	94	49	54	67
Dividend	(13)	0	(38)	(20)	(22)	(27)
Retained profit	16	78	56	29	32	40

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2006	2007	2008	2009e	2010e	2010e
Reported EBIT	51	96	120	70	78	96
Depreciation (& amortisation if deducted)	10	11	11	16	17	18
Movement in working capital	12	29	8	(31)	(2)	9
Change in provisions/ other items	14	26	14	0	0	0
Operating Cash Flow	88	162	153	55	92	123
Financing Activities	(6)	(1)	(20)	(3)	(3)	(3)
Net interest expense	9	12	17	2	2	2
Other financial items	0	0	0	0	0	0
Dividends paid	0	0	0	0	0	0
Tax paid	(15)	(13)	(37)	(5)	(5)	(5)
Investing Activities	(8)	(11)	(15)	(9)	(9)	(10)
Capital expenditure	(8)	(12)	(15)	(9)	(9)	(10)
Fixed asset/ investment sales	0	0	1	0	0	0
BCER free cash flow	75	150	118	43	81	110
Net acquisition/disposals	0	(1)	(8)	0	0	0
Proceeds from share issues	0	0	0	0	0	0
Other cash flow items	(22)	(29)	(91)	(37)	(37)	(45)
Change in net debt	53	121	20	5	44	65

Balance Sheet (€ mn)	2006	2007	2008	2009e	2010e	2010e
Fixed assets	103	117	104	112	121	132
Goodwill in BS	47	47	47	47	47	47
Other intangibles	26	28	34	36	38	39
Tangible assets	27	25	30	36	43	52
Financial investments	1	0	0	0	0	0
Other LT financial assets	3	18	(7)	(7)	(7)	(7)
Working capital	(70)	(80)	108	78	77	85
Inventories	84	117	88	63	62	69
Trade debtors	82	82	313	226	221	245
Cash unavailable for investment	(180)	(222)	(236)	(171)	(167)	(185)
Trade creditors	(56)	(56)	(56)	(40)	(39)	(44)
Other Debtors/creditors	(23)	(63)	(205)	(144)	(141)	(157)
Other debtors	133	134	0	4	4	4
Other creditors	(156)	(197)	(205)	(148)	(145)	(161)
Net cash/(debt)	168	289	308	314	357	422
Cash & securities	171	291	318	323	367	432
Gross debt	(3)	(2)	(9)	(9)	(9)	(9)
Provisions	(34)	(49)	(90)	(85)	(84)	(86)
Pension provisions (net)	(19)	(20)	(23)	(23)	(23)	(23)
Tax provisions (net)	(14)	(27)	(31)	(26)	(26)	(27)
Restructuring provisions	0	0	0	0	0	0
Other provisions	(0)	(1)	(35)	(35)	(35)	(35)
Net Equity	144	215	226	275	330	396
Ordinary Shareholders' funds	144	215	226	275	330	396
Preference shares	0	0	0	0	0	0
Minorities	0	0	0	0	0	0
Total assets (or liabilities)	573	741	823	728	774	881

### **Phoenix Solar**

Profit & Loss (€ mn)	2006	2007	2008	2009e	2010e	2011e
Total sales	119.0	260.1	402.5	456.2	596.3	736.1
Less associate sales	0.0	0.0	0.0	0.0	0.0	0.0
Sales	119.0	260.1	402.5	456.2	596.3	736.1
Variable costs	-103.1	-220.9	-339.6	-404.0	-528.2	-651.9
Gross profit	15.8	39.2	62.9	52.1	68.2	84.1
Administrative expenses	-4.8	-8.0	-12.5	-16.0	-20.9	-25.8
Depreciation	-0.2	-0.3	-0.4	-0.4	-0.5	-0.9
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0	0.0
Other operating Items	-6.0	-8.7	-16.1	-21.4	-10.1	-10.0
Reported EBIT	4.8	22.3	33.8	14.4	36.7	47.5
Income from associates	0.0	0.0	0.0	0.0	0.0	0.0
Other financials	0.0	0.0	0.0	0.0	0.0	0.0
Interest income	0.3	0.4	0.7	1.7	0.5	-0.2
Interest expense	-0.3	-1.1	-1.1	-1.1	-1.1	-1.1
Net interest income/(charge)	0.0	-0.7	-0.4	0.6	-0.5	-1.3
Exceptional Items	0.0	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	4.8	21.6	33.4	15.0	36.1	46.2
Taxation	-1.8	-7.1	-9.8	-4.5	-10.8	-13.9
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0
Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0
Reported net income	3.0	14.5	23.7	10.5	25.3	32.3
Dividend	-0.6	-1.2	-2.0	0.0	0.0	0.0
Retained profit	3.6	15.7	25.7	10.5	25.3	32.3

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2006	2007	2008	2009e	2010e	2011e
Reported EBIT	4.8	22.3	33.8	14.4	36.7	47.5
Movement in working capital	-18.5	-13.6	-59.6	0.1	-37.8	-39.6
Depreciation (& amortisation if deducted)	0.2	0.3	0.3	0.4	0.5	0.9
Change in provisions/ other items	0.3	0.7	7.1	0.0	0.0	0.0
Operating Cash Flow	-13.2	9.6	-18.3	14.8	-0.6	8.7
Financing Activities	-1.6	-5.2	-6.0	-3.1	-9.5	-14.2
Net interest expense	-0.1	-0.9	-0.8	0.6	-0.5	-1.3
Dividends paid	0.0	-0.6	-1.3	0.0	0.0	0.0
Tax paid	-1.5	-3.7	-3.8	-3.7	-8.9	-12.9
Investing Activities	-1.0	-1.5	-2.5	-1.5	-1.9	-2.4
Capital expenditure	-0.6	-1.1	-1.3	-1.5	-1.9	-2.4
Fixed asset / investment sales / other items	-0.4	-0.4	-1.2	0.0	0.0	0.0
BCR free cash flow	-15.8	2.9	-26.8	10.3	-12.0	-7.9
Other financial items	-0.1	0.0	-0.1	0.0	0.0	0.0
Net acquisition/disposals	0.0	0.0	0.0	0.0	0.0	0.0
Proceeds from share issues	6.9	0.0	20.4	0.0	0.0	0.0
Other cash flow items	0.0	0.0	0.0	0.0	0.0	0.0
Change in net debt	8.9	-2.8	6.5	-10.3	12.0	7.9

Balance Sheet (€ mn)	2006	2007	2008	2009e	2010e	2011e
Fixed assets	3.1	5.3	5.3	6.5	8.0	12.0
Goodwill in BS	0.3	0.3	0.5	0.5	0.5	0.5
Other intangibles	0.4	0.8	0.5	1.0	1.6	4.5
Tangible assets	0.8	1.2	1.7	2.2	3.0	3.9
Financial investments	1.0	1.2	0.6	0.6	0.6	0.6
Other LT financial assets	0.7	1.9	2.0	2.1	2.2	2.4
Working capital	25.9	41.2	88.4	88.8	128.1	169.1
Inventories	20.7	25.4	76.0	74.8	109.7	146.5
Trade debtors	18.5	30.0	27.0	30.6	40.0	49.4
Cash unavailable for investment	0.0	0.0	0.0	0.0	0.0	0.0
Trade creditors	-13.2	-14.2	-14.6	-16.6	-21.7	-26.8
Other Debtors/(creditors)	-5.4	-7.3	-4.8	-5.4	-6.9	-8.5
Other debtors	0.6	2.3	11.9	11.9	11.9	11.9
Other creditors	-6.0	-9.6	-16.7	-17.3	-18.8	-20.4
Net cash/(debt)	10.4	12.1	2.7	12.9	0.9	-7.0
Cash & securities	11.2	14.0	7.5	17.7	5.7	-2.1
Gross debt	0.8	1.9	4.8	4.8	4.8	4.8
Provisions	0.6	4.0	2.3	3.1	5.0	5.9
Pension provisions (net)	0.0	0.0	0.0	0.0	0.0	0.0
Tax provisions (net)	0.2	3.4	0.5	1.3	3.2	4.2
Restructuring provisions	0.0	0.0	0.0	0.0	0.0	0.0
Other provisions	0.5	0.6	1.8	1.8	1.8	1.8
Net Equity	33.3	47.3	89.3	99.8	125.1	157.4
Ordinary Shareholders' funds	33.3	47.3	89.3	99.8	125.1	157.4
Preference shares	0.0	0.0	0.0	0.0	0.0	0.0
Minorities	0.0	0.0	0.0	0.0	0.0	0.0
Total assets (or liabilities)	54.0	77.1	127.8	141.5	175.4	217.7

# **PV** Crystalox

Profit & Loss (€ mn)	2006	2007	2008	2009e	2010e	2011e
Total sales	242.4	263.4	274.1	221.0	239.9	245.4
Less associate sales	0.0	0.0	0.0	0.0	0.0	0.0
Sales	242.4	263.4	274.1	221.0	239.9	245.4
Variable costs	-173.0	-168.1	-141.7	-126.4	-137.2	-140.3
Gross profit	69.4	95.3	132.4	94.6	102.7	105.0
Administrative expenses	-8.2	-12.6	-13.8	-15.7	-18.3	-19.9
Depreciation	-5.5	-4.7	-4.0	-8.6	-10.3	-12.1
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0	0.0
Other operating Items	-7.4	-10.6	28.2	-22.4	-31.0	-21.4
Reported EBIT	48.3	67.5	142.8	47.9	43.1	51.7
Income from associates	0.0	0.0	0.0	0.0	0.0	0.0
Other financials	0.0	0.0	0.0	0.0	0.0	0.0
Interest income	1.6	4.6	5.1	1.7	1.2	1.1
Interest expense	-0.9	-1.4	-0.7	-0.7	-0.7	-0.7
Net interest income/(charge)	0.7	3.3	4.4	1.0	0.5	0.4
Exceptional Items	0.0	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	49.0	70.8	147.2	48.9	43.6	52.1
Taxation	-17.4	-23.8	-44.0	-14.7	-13.1	-15.6
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0
Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0
Reported net income	31.6	47.0	103.2	34.2	30.5	36.5
Dividend	0.0	-12.5	-25.0	-16.1	-9.2	-10.9
Retained profit	31.6	59.5	128.2	18.1	21.4	25.5

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2006	2007	2008	2009e	2010e	2011e
Reported EBIT	48.3	67.5	142.8	47.9	43.1	51.7
Movement in working capital	-24.3	8.7	-26.4	-33.8	-12.0	-3.5
Depreciation (& amortisation if deducted)	5.4	4.7	4.0	8.6	10.3	12.1
Change in provisions/ other items	1.5	-0.8	-3.7	0.0	0.0	0.0
Operating Cash Flow	31.0	80.1	116.6	22.7	41.4	60.2
Financing Activities	-15.6	-18.1	-46.7	-29.7	-21.7	-26.1
Net interest expense	0.7	3.3	4.4	1.0	0.5	0.4
Dividends paid	0.0	0.0	-18.4	-16.1	-9.2	-10.9
Tax paid	-16.3	-21.4	-32.7	-14.7	-13.1	-15.6
Investing Activities	-2.4	-22.7	-61.0	-33.2	-36.0	-36.8
Capital expenditure	-3.7	-26.1	-80.1	-33.2	-36.0	-36.8
Fixed asset / investment sales / other items	1.2	3.4	19.0	0.0	0.0	0.0
BCER free cash flow	12.9	39.3	8.9	-40.1	-16.3	-2.7
Other financial items	16.7	-19.0	-27.5	0.0	0.0	0.0
Net acquisition/disposals	0.0	0.0	0.0	0.0	0.0	0.0
Proceeds from share issues	0.0	76.8	0.0	0.0	0.0	0.0
Other cash flow items	0.1	-10.8	-32.4	0.0	0.0	0.0
Change in net debt	-29.7	-86.4	51.1	40.1	16.3	2.7

Balance Sheet (€ mn)	2006	2007	2008	2009e	2010e	2011e
Fixed assets	17.1	42.4	139.6	174.3	202.7	228.3
Goodwill in BS	0.0	0.0	0.0	0.0	0.0	0.0
Other intangibles	0.2	0.4	0.6	0.5	0.4	0.3
Tangible assets	14.0	35.1	110.9	135.6	161.3	186.1
Financial investments	0.0	0.0	0.0	0.0	0.0	0.0
Other LT financial assets	2.9	6.9	28.0	38.2	41.0	41.8
Working capital	76.9	64.2	84.7	108.3	117.5	120.2
Inventories	13.8	20.7	24.0	44.2	48.0	49.1
Trade debtors	79.5	75.3	112.2	90.6	98.3	100.6
Cash unavailable for investment	0.0	0.0	0.0	0.0	0.0	0.0
Trade creditors	-16.5	-31.7	-51.5	-26.5	-28.8	-29.4
Other Debtors/(creditors)	-12.2	-16.3	-36.8	-36.8	-36.8	-36.8
Other debtors	2.2	0.0	1.3	1.3	1.3	1.3
Other creditors	-14.5	-16.3	-38.2	-38.2	-38.2	-38.2
Net cash/(debt)	6.5	108.3	81.1	41.0	24.7	21.9
Cash & securities	61.5	147.9	96.8	56.7	40.4	37.7
Gross debt	55.1	39.6	15.7	15.7	15.7	15.7
Provisions	4.1	7.2	23.9	23.9	23.9	23.9
Pension provisions (net)	0.6	0.5	0.3	0.3	0.3	0.3
Tax provisions (net)	0.3	0.3	0.4	0.4	0.4	0.4
Restructuring provisions	0.0	0.0	0.0	0.0	0.0	0.0
Other provisions	3.2	6.4	23.2	23.2	23.2	23.2
Net Equity	84.1	191.5	244.7	262.8	284.2	309.7
Ordinary Shareholders' funds	84.1	191.5	244.7	262.8	284.2	309.7
Preference shares	0.0	0.0	0.0	0.0	0.0	0.0
Minorities	0.0	0.0	0.0	0.0	0.0	0.0
Total assets (or liabilities)	174.2	286.3	373.9	367.1	390.7	416.9

Q-Cells

Profit & Loss (€ mn)	2008	2009e	2010e	2011e
Total sales	1251.3	862.2	1114.2	1335.5
Less associate sales	0	0	0	0
Sales	1251.3	862.2	1114.2	1335.5
Variable costs	-846.0	-659.6	-796.6	-888.1
Gross profit	405.3	202.6	317.5	447.4
Personnel expenses	-93.1	-115.9	-122.1	-125.7
Depreciation	-44.5	-70.5	-71.8	-71.5
Goodwill amortisation	-0.3	-0.6	-0.8	-0.9
Operating exceptional Items	-62.3	-111.9	-101.7	-189.9
Reported EBIT	205.1	-96.4	21.2	59.4
Income from associates	34.5	-418.4	0.0	0.0
Other financials	8.8	-211.2	0.0	0.0
Interest income	9.1	5.3	5.3	5.3
Interest expense	-32.3	-16.5	-10.5	-14.5
Net interest income/(charge)	-23.2	-11.2	-5.2	-9.2
Exceptional Items	0.0	0.0	0.0	0.0
Reported pre-tax income	225.2	-737.2	16.0	50.2
Taxation	-37.9	-22.1	-3.7	-11.5
Minority interest	3.3	0.0	0.0	0.0
Discontinued Operations	0.0	0.0	0.0	0.0
Reported net income	190.6	-759.3	12.4	38.7
Dividend	0.0	0.0	0.0	0.0
Retained profit	190.6	-759.3	12.4	38.7

Common Cash Flow (€ mn)	2008	2009e	2010e	2011e
Reported EBIT	205.1	-96.4	21.2	59.4
Depreciation (& amortisation if deducted)	34.1	71.2	72.6	72.4
Movement in working capital	-425.1	165.2	-149.0	-26.2
Change in provisions/ other items	8.3	100.0	0.0	0.0
Operating Cash Flow	-177.6	240.0	-55.2	105.6
Financing Activities	-63.6	-33.3	-8.9	-20.7
Net interest expense	1.4	-11.2	-5.2	-9.2
Dividends paid	0.0	0.0	0.0	0.0
Tax paid	-65.0	-22.1	-3.7	-11.5
Investing Activities	-219.0	-439.7	-101.1	-80.1
Capital expenditure	-313.5	-439.7	-101.1	-80.1
Fixed asset/ investment sales	94.5	0.0	0.0	0.0
BCER free cash flow	-460.2	-233.0	-165.2	4.7
Other financial items	214.9	0.0	0.0	0.0
Net acquisition/disposals	0	0	0	0
Proceeds from share issues	24.7	530.0	0.0	0.0
Other cash flow items	5.1	0.0	0.0	0.0
Change in net debt	431.0	-297.0	165.2	-4.7

Balance Sheet (€ mn)	2008	2009e	2010e	2011e
Fixed assets	2089.3	1533.0	1566.7	1578.9
Goodwill in BS	3.8	3.8	3.8	3.8
Other intangibles	48.4	56.4	66.8	79.2
Tangible assets	664.6	1025.1	1043.4	1038.7
Financial investments	0.0	0.0	0.0	0.0
Other LT financial assets	1372.5	447.7	452.8	457.2
Working capital	293.3	241.4	367.7	373.9
Inventories	216.8	172.4	222.8	200.3
Trade debtors	181.2	172.4	278.5	333.9
Cash unavailable for investment	-25.0	-17.2	-22.3	-26.7
Trade creditors	-79.7	-86.2	-111.4	-133.6
Other Debtors/creditors	83.8	-21.7	-4.1	11.4
Other debtors	171.2	65.7	83.3	98.8
Other creditors	87.4	87.4	87.4	87.4
Net cash/(debt)	-473.8	-176.8	-342.0	-337.3
Cash & securities	176.6	176.6	176.6	176.6
Gross debt	650.4	353.4	518.6	513.9
Provisions	115.9	115.9	115.9	115.9
Pension provisions (net)	0.0	0.0	0.0	0.0
Tax provisions (net)	5.7	5.7	5.7	5.7
Restructuring provisions	0.0	0.0	0.0	0.0
Other provisions	110.2	110.2	110.2	110.2
Net Equity	1876.7	1117.4	1129.7	1168.4
Ordinary Shareholders' funds	1847.0	1087.7	1100.0	1138.7
Preference shares	0.0	0.0	0.0	0.0
Minorities	29.7	29.7	29.7	29.7
Total assets (or liabilities)	2835.1	2120.2	2327.9	2388.5

REC

Profit & Loss (NOK mn)	2006	2007	2008	2009e	2010e	2011e
Total sales	4334.1	6642.0	8190.8	9093.6	12767.5	17587.8
Less associate sales	0.0	0.0	0.0	0.0	0.0	0.0
Sales	4334.1	6642.0	8190.8	9093.6	12767.5	17587.8
Variable costs	720.8	1272 5	1700.0	2546.2	2210.6	4572.0
	-739.8	-1272.5	-1700.9	-2546.2	-3319.6	-4572.8
Gross profit	3594.3	5369.5	6489.9	6547.4	9448.0	13015.0
Personnel expenses	-668.0	-1033.4	-1545.2	-1909.7	-2170.5	-2989.9
Depreciation	-333.9	-584.6	-750.1	-1990.6	-1728.1	-1839.7
Goodwill amortisation	-44.5	0.0	0.0	0.0	0.0	0.0
Operating exceptional Items	-961.8	-1163.8	-1665.8	-2630.9	-3311.5	-4306.0
Reported EBIT	1574.4	2587.7	2528.8	16.2	2237.9	3879.3
Income from associates	-18.3	-45.5	-2.9	0.0	0.0	0.0
Other financials	-827.8	-816.0	1727.6	-872.0	0.0	0.0
Interest income	164.2	314.6	181.3	79.7	98.1	119.2
Interest expense	-148.5	-63.6	-56.1	-202.2	-311.0	-318.7
Net interest income/(charge)	15.7	251.1	125.2	-122.5	-212.8	-199.5
Exceptional Items	0.0	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	744.0	1977.3	4378.6	-978.3	2025.1	3679.9
Taxation	-285.6	-644.0	-1314.4	244.6	-607.5	-1104.0
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0
Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0
Reported net income	458.3	1333.4	3064.2	-733.7	1417.6	2575.9
Dividend	0.0	0.0	0.0	0.0	0.0	0.0
Retained profit	458.3	1333.4	3064.2	-733.7	1417.6	2575.9

Common Cash Flow (NOK mn)	2006	2007	2008	2009e	2010e	2011e
Reported EBIT	1574.4	2587.7	2528.8	16.2	2237.9	3879.3
Depreciation (& amortisation if deducted)	390.2	0.0	750.1	1261.6	1728.1	1839.7
Movement in working capital	-390.5	0.0	-858.6	-122.3	-1013.3	-1302.5
Change in provisions/ other items	21.7	0.0	-1306.4	0.0	0.0	0.0
Operating Cash Flow	1595.8	2587.7	1113.9	1155.6	2952.6	4416.6
Financing Activities	-167.0	251.1	-752.1	122.1	-820.4	-1303.4
Net interest expense	15.7	251.1	125.2	-122.5	-212.8	-199.5
Dividends paid	0.0	0.0	0.0	0.0	0.0	0.0
Tax paid	-182.7	0.0	-877.3	244.6	-607.5	-1104.0
Investing Activities	-1488.8	-4453.2	-9743.3	-11000.0	-4200.0	-3500.0
Capital expenditure	-1534.5	-4453.2	-9747.6	-11000.0	-4200.0	-3500.0
Fixed asset/ investment sales	45.7	0.0	4.3	0.0	0.0	0.0
BCER free cash flow	-60.0	-1614.4	-9381.6	-9722.4	-2067.7	-386.8
Other financial items	244.6	0.0	2773.2	0.0	0.0	0.0
Net acquisition/disposals	-144.9	0.0	-220.6	0.0	0.0	0.0
Proceeds from share issues	6777.7	0.0	0.0	4317.0	0.0	0.0
Other cash flow items	-67.4	-1198.4	1699.8	-872.0	0.0	0.0
Change in net debt	-6749.9	2812.8	5129.1	6277.4	2067.7	386.8

Balance Sheet (NOK mn)	2006	2007	2008	2009e	2010e	2011e
Fixed assets	5758.0	10361.9	22982.2	32720.6	35192.5	36852.8
Goodwill in BS	792.3	799.5	916.5	916.5	916.5	916.5
Other intangibles	255.0	256.4	476.8	476.8	476.8	476.8
Tangible assets	4643.8	7634.9	20994.6	30733.0	33204.9	34865.2
Financial investments	64.2	1440.4	573.2	573.2	573.2	573.2
Other LT financial assets	2.7	230.8	21.0	21.0	21.0	21.0
Working capital	945.1	453.6	3711.9	3834.2	4847.5	6150.0
Inventories	508.5	655.2	1669.9	1853.9	2885.5	4326.6
Trade debtors	708.9	1019.8	2219.5	2464.2	3191.9	3517.6
Cash unavailable for investment	387.6	113.6	2840.4	3153.5	3238.8	3582.2
Trade creditors	-660.0	-1335.0	-3018.0	-3637.4	-4468.6	-5276.3
Other Debtors/(creditors)	0.0	0.0	0.0	0.0	0.0	0.0
Other debtors	0.0	0.0	0.0	0.0	0.0	0.0
Other creditors	0.0	0.0	0.0	0.0	0.0	0.0
Net cash/(debt)	4773.3	2671.8	-6706.4	-12983.8	-15051.5	-15438.4
Cash & securities	7417.5	5794.9	496.8	496.8	496.8	496.8
Gross debt	2644.2	3123.1	7203.2	13480.6	15548.3	15935.2
Provisions	839.8	1730.2	3475.2	3475.2	3475.2	3475.2
Pension provisions (net)	202.0	116.9	188.8	188.8	188.8	188.8
Tax provisions (net)	386.6	790.7	1227.7	1227.7	1227.7	1227.7
Restructuring provisions	0.0	0.0	0.0	0.0	0.0	0.0
Other provisions	251.3	822.6	2058.7	2058.7	2058.7	2058.7
Net Equity	10636.5	11757.1	16512.4	20095.7	21513.2	24089.1
Ordinary Shareholders' funds	10636.5	11756.7	16512.1	20095.4	21512.9	24088.8
Preference shares	0.0	0.0	0.0	0.0	0.0	0.0
Minorities	0.0	0.3	0.3	0.3	0.3	0.3
Total assets (or liabilities)	14780.5	17945.3	30208.9	40689.0	45005.5	48775.9

# Repower

Profit & Loss (€ mn)	2007	2008/9	2009/10e	2010/11e	2011/12e
Total sales	680.2	1209.1	1309.5	1532.1	1746.6
Less associate sales	0.0	0.0	0.0	0.0	0.0
Sales	680.2	1209.1	1309.5	1532.1	1746.6
Variable costs	-554.1	-970.1	-1049.7	-1228.1	-1400.0
Gross profit	126.0	239.0	259.8	304.0	346.5
Personnel expenses	-49.6	-80.7	-94.9	-96.8	-98.8
Depreciation	-3.4	-7.1	-13.3	-13.9	-14.4
Goodwill amortisation	-7.7	-11.2	-6.7	-10.0	-12.7
Operating exceptional Items	-41.7	-66.9	-57.2	-83.3	-96.7
Reported EBIT	23.8	73.2	87.7	99.9	123.9
Income from associates	-0.1	1.9	0.0	0.0	0.0
Other financials	0.0	0.0	0.0	0.0	0.0
Interest income	6.2	4.0	2.0	2.0	2.0
Interest expense	-4.9	-6.2	-17.4	-11.8	-19.2
Net interest income/(charge)	1.4	-2.2	-15.4	-9.8	-17.2
Exceptional Items	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	29.5	76.6	72.3	90.1	106.7
Taxation	-8.3	-24.6	-25.3	-31.5	-37.3
Minority interest	0.1	0.0	0.0	0.0	0.0
Discontinued Operations	0.0	0.0	0.0	0.0	0.0
Reported net income	21.2	51.9	47.0	58.6	69.3
Dividend	0.0	0.0	0.0	0.0	0.0
Retained profit	21.2	51.9	47.0	58.6	69.3

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2007	2008/9	2009/10e	2010/11e	2011/12e
Reported EBIT	28.2	76.9	87.7	99.9	123.9
Depreciation (& amortisation if deducted)	6.6	14.5	20.0	23.9	27.2
Movement in working capital	-82.4	-116.4	-138.8	17.7	-106.0
Change in provisions/ other items	3.9	3.0	0.0	0.0	0.0
Operating Cash Flow	-43.7	-22.0	-31.2	141.5	45.1
Financing Activities	1.5	-13.2	-40.7	-41.4	-54.6
Net interest expense	1.6	-2.7	-15.4	-9.8	-17.2
Dividends paid	0.0	-0.5	0.0	0.0	0.0
Tax paid	-0.1	-10.1	-25.3	-31.5	-37.3
Investing Activities	-42.1	-63.2	-52.4	-53.6	-52.4
Capital expenditure	-43.5	-62.5	-52.4	-53.6	-52.4
Fixed asset/ investment sales	1.4	-0.7	0.0	0.0	0.0
BCER free cash flow	-84.3	-98.4	-124.2	46.5	-61.9
Other financial items	0.1	0.1	0.0	0.0	0.0
Net acquisition/disposals	0.0	0.0	0.0	0.0	0.0
Proceeds from share issues	110.9	7.8	0.0	0.0	0.0
Other cash flow items	-1.6	3.4	0.0	0.0	0.0
Change in net debt	-25.2	87.1	124.2	-46.5	61.9

Balance Sheet (€ mn)	2007	2008/9	2009/10e	2010/11e	2011/12e
Fixed assets	90.2	155.0	187.3	217.1	242.3
Goodwill in BS	1.4	1.4	1.4	1.4	1.4
Other intangibles	20.4	27.0	46.5	63.3	76.8
Tangible assets	49.7	110.7	115.7	120.6	124.5
Financial investments	5.2	7.3	15.2	23.2	31.1
Other LT financial assets	13.5	8.6	8.6	8.6	8.6
Working capital	153.5	261.9	400.7	383.0	489.0
Inventories	97.5	240.9	196.4	229.8	314.4
Trade debtors	200.3	309.1	458.3	435.1	496.0
Cash unavailable for investment	-36.2	-139.0	-57.6	-52.1	-59.4
Trade creditors	-108.1	-149.1	-196.4	-229.8	-262.0
Other Debtors/(creditors)	-29.3	-44.2	-29.1	-29.1	-29.1
Other debtors	0.0	0.0	0.0	0.0	0.0
Other creditors	29.3	44.2	29.1	29.1	29.1
Net cash/(debt)	143.0	80.8	-43.4	3.1	-58.8
Cash & securities	144.9	101.2	101.2	101.2	101.2
Gross debt	1.9	20.4	144.7	98.1	160.0
Provisions	31.1	45.1	41.5	41.5	41.5
Pension provisions (net)	0.0	0.0	0.0	0.0	0.0
Tax provisions (net)	10.4	21.7	18.1	18.1	18.1
Restructuring provisions	0.0	0.0	0.0	0.0	0.0
Other provisions	20.8	23.4	23.4	23.4	23.4
Net Equity	326.2	408.5	427.2	485.7	555.1
Ordinary Shareholders' funds	325.5	408.5	426.4	485.0	554.4
Preference shares	0.0	0.0	0.0	0.0	0.0
Minorities	0.7	0.0	0.7	0.7	0.7
Total assets (or liabilities)	532.9	806.2	943.3	983.2	1154.0

## Roth and Rau

Profit & Loss (€ mn)	2007	2008	2009e	2010e	2011e
Total sales	146.2	272.1	193.6	211.7	251.4
Less associate sales	0.0	0.0	0.0	0.0	0.0
Sales	146.2	272.1	193.6	211.7	251.4
Variable costs	-114.3	-191.8	-142.1	-155.4	-184.6
Gross profit	32.0	80.3	51.4	56.2	66.8
Administrative expenses	-7.6	-20.1	-14.3	-15.7	-18.6
Depreciation	-1.7	-6.1	-15.5	-12.7	-11.1
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0
Other operating Items	-8.8	-25.6	-6.6	-8.9	-12.6
Reported EBIT	13.9	28.5	15.0	19.0	24.6
Income from associates	0.0	0.0	0.0	0.0	0.0
Other financials	0.0	0.0	0.0	0.0	0.0
Interest income	1.4	4.3	6.0	6.3	6.7
Interest expense	-0.2	-1.1	-0.5	-0.5	-0.5
Net interest income/(charge)	1.2	3.3	5.4	5.8	6.2
Exceptional Items	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	15.1	31.8	20.4	24.7	30.8
Taxation	-3.4	-8.6	-5.1	-6.2	-7.7
Minority interest	0.0	0.0	0.0	0.0	0.0
Discontinued Operations	0.0	0.0	0.0	0.0	0.0
Reported net income	11.7	23.2	15.3	18.5	23.1
Dividend	0.0	0.0	0.0	0.0	0.0
Retained profit	11.7	23.2	15.3	18.5	23.1

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2007	2008	2009e	2010e	2011e
Reported EBIT	13.9	28.5	15.0	19.0	24.6
Movement in working capital	-4.8	-62.2	10.3	-17.1	-16.3
Depreciation (& amortisation if deducted)	1.7	6.1	15.5	12.7	11.1
Change in provisions/ other items	3.5	5.6	0.0	0.0	0.0
Operating Cash Flow	14.3	-21.9	40.8	14.6	19.3
Financing Activities	-2.2	-5.4	0.3	-0.4	-1.5
Net interest expense	1.2	3.3	5.4	5.8	6.2
Dividends paid	0.0	0.0	0.0	0.0	0.0
Tax paid	-3.4	-8.6	-5.1	-6.2	-7.7
Investing Activities	-8.9	-47.1	-6.5	-7.1	-8.5
Capital expenditure	-8.9	-13.1	-6.5	-7.1	-8.5
Fixed asset / investment sales / other items	0.0	-34.1	0.0	0.0	0.0
BCER free cash flow	3.2	-74.5	34.6	7.0	9.4
Other financial items	0.0	0.0	0.0	0.0	0.0
Net acquisition/disposals	0.0	0.0	0.0	0.0	0.0
Proceeds from share issues	35.6	98.5	0.0	0.0	0.0
Other cash flow items	0.4	1.6	0.0	0.0	0.0
Change in net debt	-39.2	-25.6	-34.6	-7.0	-9.4

Balance Sheet (€ mn)	2007	2008	2009e	2010e	2011e
Fixed assets	15.2	49.1	40.1	34.6	31.9
Goodwill in BS	0.0	0.0	0.0	0.0	0.0
Other intangibles	4.6	27.4	20.2	15.7	13.1
Tangible assets	9.4	21.1	19.3	18.2	18.1
Financial investments	0.2	0.2	0.2	0.2	0.2
Other LT financial assets	0.9	0.5	0.5	0.5	0.5
Working capital	2.0	60.0	55.4	71.2	84.6
Inventories	12.3	28.7	29.0	42.3	50.3
Trade debtors	34.8	75.8	58.1	63.5	75.4
Cash unavailable for investment	0.0	0.0	0.0	0.0	0.0
Trade creditors	-45.1	-44.5	-31.7	-34.6	-41.2
Other Debtors/(creditors)	13.5	20.0	14.2	15.6	19.5
Other debtors	13.5	20.0	14.2	15.6	18.5
Other creditors	0.0	0.0	0.0	0.0	1.0
Net cash/(debt)	61.5	87.0	121.6	128.7	138.0
Cash & securities	63.3	91.5	126.1	133.1	142.5
Gross debt	1.8	4.5	4.5	4.5	4.5
Provisions	9.4	22.9	22.9	22.9	22.9
Pension provisions (net)	0.0	0.0	0.0	0.0	0.0
Tax provisions (net)	6.6	15.2	15.2	15.2	15.2
Restructuring provisions	0.0	0.0	0.0	0.0	0.0
Other provisions	2.8	7.7	7.7	7.7	7.7
Net Equity	82.8	206.5	221.8	240.3	263.4
Ordinary Shareholders' funds	82.8	206.5	221.8	240.3	263.4
Preference shares	0.0	0.0	0.0	0.0	0.0
Minorities	0.0	0.0	0.0	0.0	0.0
Total assets (or liabilities)	139.0	265.1	267.6	289.1	318.7

SMA Solar

Profit & Loss (€ mn)	2007	2008	2009e	2010e	2011e
Total sales	327.3	681.6	888.2	1010.9	1273.5
Less associate sales	0.0	0.0	0.0	0.0	0.0
Sales	327.3	681.6	888.2	1010.9	1273.5
Variable costs	-204.3	-427.8	-568.4	-626.8	-776.8
Gross profit	123.1	253.8	319.8	384.2	496.6
Administrative expenses	-27.6	-48.4	-64.4	-91.0	-114.6
Depreciation	-16.0	-8.8	-17.9	-19.7	-22.1
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0
Other operating Items	-20.2	-29.1	-30.8	-35.8	-67.9
Reported EBIT	59.3	167.4	206.7	237.7	292.0
Income from associates	0.0	0.0	0.0	0.0	0.0
Other financials	0.0	0.0	0.0	0.0	0.0
Interest income	1.1	5.2	6.4	9.0	11.8
Interest expense	-1.2	-1.4	-1.6	-1.6	-1.6
Net interest income/(charge)	-0.1	3.7	4.8	7.4	10.2
Exceptional Items	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	59.2	171.1	211.4	245.1	302.2
Taxation	-22.4	-51.6	-63.8	-73.9	-91.1
Minority interest	0.0	0.0	0.0	0.0	0.0
Discontinued Operations	0.0	0.0	0.0	0.0	0.0
Reported net income	36.8	119.5	147.7	171.2	211.0
Dividend	13.0	25.2	0.0	0.0	0.0
Retained profit	23.8	94.3	147.7	171.2	211.0

Common Cash Flow (€ mn)	2007	2008	2009e	2010e	2011e
Reported EBIT	59.3	167.4	206.7	237.7	292.0
Movement in working capital	-7.6	18.7	-78.3	-31.7	-61.6
Depreciation (& amortisation if deducted)	16.0	8.8	17.9	19.7	22.1
Change in provisions/ other items	3.4	25.3	0.0	0.0	0.0
Operating Cash Flow	71.1	220.1	146.2	225.6	252.5
Financing Activities	-30.9	-57.8	-59.0	-66.5	-81.0
Net interest expense	1.0	5.0	4.8	7.4	10.2
Dividends paid	-13.0	-25.2	0.0	0.0	0.0
Tax paid	-18.9	-37.6	-63.8	-73.9	-91.1
Investing Activities	-20.8	-94.5	-31.1	-35.4	-44.6
Capital expenditure	-21.2	-73.9	-31.1	-35.4	-44.6
Fixed asset / investment sales / other items	0.4	-20.6	0.0	0.0	0.0
BCER free cash flow	19.4	67.8	56.2	123.8	127.0
Other financial items	0.0	0.0	0.0	0.0	0.0
Net acquisition/disposals	0.0	0.0	0.0	0.0	0.0
Proceeds from share issues	0.0	126.9	0.0	0.0	0.0
Other cash flow items	0.0	0.0	0.0	0.0	0.0
Change in net debt	-19.3	-194.7	-56.2	-123.8	-127.0

Balance Sheet (€ mn)	2007	2008	2009e	2010e	2011e
Fixed assets	34.4	102.3	115.4	131.2	153.6
Goodwill in BS	0.0	0.0	0.0	0.0	0.0
Other intangibles	1.9	5.5	10.0	15.0	21.4
Tangible assets	31.3	94.1	102.9	113.5	129.6
Financial investments	0.1	0.1	0.1	0.1	0.1
Other LT financial assets	1.2	2.5	2.5	2.5	2.5
Working capital	59.8	78.0	156.4	188.1	249.6
Inventories	47.6	75.3	152.8	184.0	244.5
Trade debtors	26.8	24.0	31.3	35.6	44.9
Cash unavailable for investment	0.0	0.0	0.0	0.0	0.0
Trade creditors	-14.6	-21.3	-27.7	-31.6	-39.8
Other Debtors/(creditors)	-43.8	-53.2	-53.2	-53.2	-53.2
Other debtors	1.6	27.3	27.3	27.3	27.3
Other creditors	-45.4	-80.5	-80.5	-80.5	-80.5
Net cash/(debt)	41.2	219.1	275.3	399.1	526.1
Cash & securities	52.8	240.7	296.8	420.6	547.6
Gross debt	11.6	21.5	21.5	21.5	21.5
Provisions	27.2	65.4	65.4	65.4	65.4
Pension provisions (net)	0.0	0.0	0.0	0.0	0.0
Tax provisions (net)	12.0	27.6	27.6	27.6	27.6
Restructuring provisions	15.2	37.8	37.8	37.8	37.8
Other provisions	0.0	0.0	0.0	0.0	0.0
Net Equity	64.4	280.8	428.4	599.6	810.6
Ordinary Shareholders' funds	64.4	280.8	428.4	599.6	810.6
Preference shares	0.0	0.0	0.0	0.0	0.0
Minorities	0.0	0.0	0.0	0.0	0.0
Total assets (or liabilities)	163.2	469.6	623.7	798.7	1017.9

## Solar Millennium

Profit & Loss (€ mn)	2007	2008	2009e	2010e	2011e
Total sales	31.1	32.0	198.4	288.2	454.2
Less associate sales	0.0	0.0	0.0	0.0	0.0
Sales	31.1	32.0	198.4	288.2	454.2
Variable costs	-3.8	-6.6	-72.0	-104.6	-164.9
Gross profit	27.3	25.4	126.4	183.6	289.3
Administrative expenses	-4.9	-7.2	-10.2	-14.7	-21.1
Depreciation	-0.3	-0.4	-3.9	-10.6	-22.2
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0
Other operating Items	-5.7	-6.6	-69.4	-100.0	-166.6
Reported EBIT	16.4	11.2	42.9	58.3	79.5
Income from associates	0.0	0.0	0.0	0.0	0.0
Other financials	0.0	0.0	0.0	0.0	0.0
Interest income	3.6	8.9	1.6	1.6	0.7
Interest expense	-7.0	-12.2	-4.1	-4.8	-3.4
Net interest income/(charge)	-3.4	-3.3	-2.5	-3.2	-2.7
Exceptional Items	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	12.9	8.0	40.4	55.2	76.7
Reported pre-tax medine	12.3	0.0	10.1	33.2	7 0.7
Taxation	-1.1	-1.8	-10.1	-16.6	-23.0
Minority interest	0.0	0.0	0.0	0.0	0.0
Discontinued Operations	0.0	0.0	0.0	0.0	0.0
Reported net income	11.9	6.1	30.3	38.6	53.7
Dividend	0.0	0.0	0.0	0.0	0.0
Retained profit	11.9	6.1	30.3	38.6	53.7

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2007	2008	2009e	2010e	2011e
Reported EBIT	16.4	11.2	42.9	58.3	79.5
Movement in working capital	-14.6	-30.7	-15.1	-23.1	-31.5
Depreciation (& amortisation if deducted)	0.3	0.4	3.9	10.6	22.2
Change in provisions/ other items	4.7	-0.5	0.0	0.0	0.0
Operating Cash Flow	6.8	-19.6	31.7	45.9	70.2
Financing Activities	-4.5	-5.1	-12.6	-19.7	-25.8
Net interest expense	-3.4	-3.3	-2.5	-3.2	-2.7
Dividends paid	0.0	0.0	0.0	0.0	0.0
Tax paid	-1.1	-1.8	-10.1	-16.6	-23.0
Investing Activities	-8.0	-11.8	-22.2	-44.6	-93.0
Capital expenditure	-0.7	-3.6	-22.2	-44.6	-93.0
Fixed asset / investment sales / other items	-7.3	-8.2	0.0	0.0	0.0
BCER free cash flow	-5.7	-36.5	-3.1	-18.4	-48.5
Other financial items	40.7	29.3	0.0	0.0	0.0
Net acquisition/disposals	0.0	0.0	0.0	0.0	0.0
Proceeds from share issues	0.0	55.2	0.0	0.0	0.0
Other cash flow items	0.0	0.0	0.0	0.0	0.0
Change in net debt	-35.0	-48.0	3.1	18.4	48.5

Balance Sheet (€ mn)	2007	2008	2009e	2010e	2011e
Fixed assets	26.2	54.2	72.5	106.5	177.2
Goodwill in BS	0.1	0.3	0.3	0.3	0.3
Other intangibles	0.5	1.8	10.0	19.1	32.3
Tangible assets	0.5	2.5	12.7	37.6	95.2
Financial investments	0.3	28.0	28.0	28.0	28.0
Other LT financial assets	24.7	21.4	21.4	21.4	21.4
Working capital	34.3	-15.0	0.1	23.1	54.6
Inventories	3.0	11.8	73.3	106.4	167.7
Trade debtors	31.6	14.1	160.7	233.5	367.9
Cash unavailable for investment	0.0	0.0	0.0	0.0	0.0
Trade creditors	-0.3	-40.9	-233.9	-316.8	-481.0
Other Debtors/(creditors)	17.3	55.7	55.7	55.7	55.7
Other debtors	24.9	66.0	66.0	66.0	66.0
Other creditors	-7.6	-10.3	-10.3	-10.3	-10.3
Net cash/(debt)	-35.5	-32.8	-36.0	-54.4	-102.9
Cash & securities	65.5	81.2	81.2	81.2	32.6
Gross debt	100.9	114.0	117.1	135.6	135.6
Provisions	1.8	2.5	2.5	2.5	2.5
Pension provisions (net)	0.0	0.0	0.0	0.0	0.0
Tax provisions (net)	0.2	2.5	2.5	2.5	2.5
Restructuring provisions	0.0	0.0	0.0	0.0	0.0
Other provisions	1.6	0.0	0.0	0.0	0.0
Net Equity	40.5	103.3	133.5	172.2	225.9
Ordinary Shareholders' funds	40.5	103.3	133.5	172.2	225.9
Preference shares	0.0	0.0	0.0	0.0	0.0
Minorities	0.0	0.0	0.0	0.0	0.0
Total assets (or liabilities)	151.2	227.2	453.6	593.5	811.5

## Solaria

Profit & Loss (€ mn)	2007	2008	2009e	2010e	2011e
Total sales	186.2	265.6	148.9	173.8	215.7
Less associate sales	0.0	0.0	0.0	0.0	0.0
Sales	186.2	265.6	148.9	173.8	215.7
Variable costs	-99.8	-243.0	-119.1	-139.0	-172.6
Gross profit	86.4	22.6	29.8	34.8	43.1
Administrative expenses	-8.1	-15.9	-6.5	-23.2	-9.4
Depreciation	-0.6	-1.7	-8.4	-10.6	-13.3
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0
Other operating Items	-6.7	-31.5	7.6	16.7	-2.0
Reported EBIT	71.1	-26.7	22.5	17.6	18.6
Income from associates	0.0	0.0	0.0	0.0	0.0
Other financials	0.0	0.0	0.0	0.0	0.0
Interest income	4.4	10.2	0.3	0.3	0.3
Interest expense	-3.9	-14.2	6.2	6.2	12.0
Net interest income/(charge)	0.5	-4.0	6.5	6.5	12.3
Exceptional Items	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	71.6	-30.7	29.0	24.1	30.9
Taxation	-23.2	9.2	-8.7	-7.2	-9.3
Minority interest	0.0	0.0	0.0	0.0	0.0
Discontinued Operations	0.0	0.0	0.0	0.0	0.0
Reported net income	48.4	-21.5	20.3	16.9	21.6
Dividend	0.0	0.0	0.0	0.0	0.0
Retained profit	48.4	-21.5	20.3	16.9	21.6

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2007	2008	2009e	2010e	2011e
Reported EBIT	71.1	-26.7	22.5	17.6	18.6
Movement in working capital	-138.8	-100.2	36.4	5.0	-46.4
Depreciation (& amortisation if deducted)	0.6	1.7	8.4	10.6	13.3
Change in provisions/ other items	-0.2	23.8	0.0	0.0	0.0
Operating Cash Flow	-67.3	-101.4	67.3	33.3	-14.5
Financing Activities	-10.7	-26.2	-2.2	-0.7	3.1
Net interest expense	1.5	-3.6	6.5	6.5	12.3
Dividends paid	-2.4	0.0	0.0	0.0	0.0
Tax paid	-9.8	-22.6	-8.7	-7.2	-9.3
Investing Activities	-25.4	-22.2	-28.3	-33.0	-41.0
Capital expenditure	-26.1	-22.7	-28.3	-33.0	-41.0
Fixed asset / investment sales / other items	0.7	0.5	0.0	0.0	0.0
BCER free cash flow	-103.4	-149.8	36.8	-0.4	-52.5
Other financial items	42.0	17.3	0.0	0.0	0.0
Net acquisition/disposals	0.1	0.0	0.0	0.0	0.0
Proceeds from share issues	210.2	-10.5	0.0	0.0	0.0
Other cash flow items	0.0	0.0	0.0	0.0	0.0
Change in net debt	-148.9	143.0	-36.8	0.4	52.5

Balance Sheet (€ mn)	2007	2008	2009e	2010e	2011e
Fixed assets	38.5	83.6	103.5	125.8	153.5
Goodwill in BS	0.0	0.0	0.0	0.0	0.0
Other intangibles	0.0	0.0	0.0	0.0	0.0
Tangible assets	32.7	70.1	90.0	112.3	140.0
Financial investments	0.0	0.0	0.0	0.0	0.0
Other LT financial assets	5.7	13.5	13.5	13.5	13.5
Working capital	126.3	191.2	144.2	130.3	161.8
Inventories	34.8	183.6	104.2	104.3	129.4
Trade debtors	147.4	61.7	77.2	69.5	86.3
Cash unavailable for investment	0.0	0.0	0.0	0.0	0.0
Trade creditors	-55.9	-54.2	-37.2	-43.4	-53.9
Other Debtors/(creditors)	7.8	47.9	58.5	67.3	82.2
Other debtors	31.2	49.8	60.4	69.2	84.1
Other creditors	-23.4	-2.0	-2.0	-2.0	-2.0
Net cash/(debt)	94.7	-82.9	-46.1	-46.6	-99.0
Cash & securities	153.2	10.1	10.1	10.1	10.1
Gross debt	58.5	93.1	56.3	56.7	109.2
Provisions	6.0	5.9	5.9	5.9	5.9
Pension provisions (net)	0.0	0.0	0.0	0.0	0.0
Tax provisions (net)	1.2	1.0	1.0	1.0	1.0
Restructuring provisions	0.0	0.0	0.0	0.0	0.0
Other provisions	4.9	4.9	4.9	4.9	4.9
Net Equity	261.2	233.9	254.1	271.0	292.6
Ordinary Shareholders' funds	261.2	233.9	254.1	271.0	292.6
Preference shares	0.0	0.0	0.0	0.0	0.0
Minorities	0.0	0.0	0.0	0.0	0.0
Total assets (or liabilities)	405.0	388.9	355.4	379.0	463.5

## SolarWorld

Profit & Loss (€ mn)	2007	2008	2009e	2010e	2011e
Total sales	689.6	900.3	962.8	1053.1	1115.4
Less associate sales	0		0	0	0
Sales	689.6	900.3	962.8	1053.1	1115.4
Variable costs	-351.3	-438.9	-507.2	-554.8	-587.7
Gross profit	338.3	461.4	455.5	498.3	527.7
Personnel expenses	-75.0	-90.1	-75.9	-79.6	-83.1
Depreciation	-58.2	-73.9	-110.7	-139.2	-197.4
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0
Operating exceptional Items	-22.3	-55.3	-104.0	-92.4	-44.5
Reported EBIT	182.7	242.1	164.9	187.1	202.7
Income from associates	0.0	1.0	0.0	0.0	0.0
Other financials	-1.8	-64.5	-1.3	-1.3	-0.3
Interest income	17.3	41.4	13.2	9.8	7.2
Interest expense	-38.4	-49.0	-40.6	-40.6	-40.6
Net interest income/(charge)	-21.1	-7.6	-27.4	-30.8	-33.4
Exceptional Items	0		0	0	0
Reported pre-tax income	159.8	171.0	136.2	155.0	169.0
Taxation	-65.0	-53.4	-40.9	-46.5	-50.7
Minority interest	0.0	0.0	0.0	0.0	0.0
Discontinued Operations	0		0	0	0
Reported net income	94.8	117.6	95.3	108.5	118.3
Dividend	-7.0	-15.6	-15.6	-15.6	-15.6
Retained profit	87.8	101.9	79.7	92.9	102.7

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2007	2008	2009e	2010e	2011e
Reported EBIT	198.9	274.5	164.9	187.1	202.7
Depreciation (& amortisation if deducted)	42.1	55.2	110.7	139.2	197.4
Movement in working capital	-140.1	22.9	-7.2	-65.3	-31.8
Change in provisions/ other items	0.2	-23.6	0.2	0.2	0.2
Operating Cash Flow	101.1	329.0	268.6	261.2	368.5
Financing Activities	-93.1	-57.2	-83.9	-92.9	-99.8
Net interest expense	-21.1	-1.4	-27.4	-30.8	-33.4
Dividends paid	-7.0	-15.6	-15.6	-15.6	-15.6
Tax paid	-65.0	-40.1	-40.9	-46.5	-50.7
Investing Activities	-144.8	-231.9	-259.2	-286.2	-304.9
Capital expenditure	-144.8	-269.5	-288.2	-315.2	-333.9
Fixed asset/ investment sales	0.0	37.6	29.0	29.0	29.0
BCER free cash flow	-136.9	39.9	-74.5	-117.9	-36.1
Other financial items	345.5	50.5	0.0	0.0	0.0
Net acquisition/disposals	0.0	66.6	0.0	0.0	0.0
Proceeds from share issues	0.0	0.0	0.0	0.0	0.0
Other cash flow items	0.0	0.7	0.0	0.0	0.0
Change in net debt	-144.1	-121.7	60.7	103.6	21.3

Balance Sheet (€ mn)	2007	2008	2009e	2010e	2011e
Fixed assets	422.7	666.9	828.5	999.7	1131.2
Goodwill in BS	0.0	0.0	0.0	0.0	0.0
Other intangibles	32.7	33.9	32.7	32.7	32.7
Tangible assets	349.6	575.4	747.3	918.5	1050.0
Financial investments	21.6	30.5	30.5	30.5	30.5
Other LT financial assets	18.8	27.1	18.0	18.0	18.0
Working capital	360.2	464.6	471.8	537.1	568.9
Inventories	350.1	523.8	510.3	579.2	613.5
Trade debtors	103.4	71.2	144.4	158.0	167.3
Cash unavailable for investment	-61.0	-60.0	-115.5	-126.4	-133.8
Trade creditors	-32.3	-70.4	-67.4	-73.7	-78.1
Other Debtors/creditors	65.9	22.7	35.9	35.9	36.9
Other debtors	65.9	22.7	35.9	35.9	36.9
Other creditors	0.0	0.0	0.0	0.0	0.0
Net cash/(debt)	151.7	-295.1	67.6	-36.1	-58.4
Cash & securities	792.9	404.4	767.1	663.5	642.1
Gross debt	641.2	699.5	699.5	699.5	700.5
Provisions	164.5	230.5	230.5	230.5	230.5
Pension provisions (net)	0.0	0.0	0.0	0.0	0.0
Tax provisions (net)	30.2	43.8	43.8	43.8	43.8
Restructuring provisions	0.0	0.0	0.0	0.0	0.0
Other provisions	134.3	186.7	186.7	186.7	186.7
Net Equity	691.5	841.1	1173.2	1306.1	1448.0
Ordinary Shareholders' funds	691.5	841.1	1173.2	1306.1	1448.0
Preference shares	0.0	0.0	0.0	0.0	0.0
Minorities	0.0	0.0	0.0	0.0	0.0
Total assets (or liabilities)	1735.0	1688.9	2286.2	2436.3	2591.0

## Solon

Profit & Loss (€ mn)	2007	2008	2009e	2010e	2011e
Total sales	503.1	815.1	408.3	483.8	646.7
Less associate sales	0.0	0.0	0.0	0.0	0.0
Sales	503.1	815.1	408.3	483.8	646.7
Variable costs	-409.3	-659.9	-368.7	-436.8	-583.9
Gross profit	93.8	155.2	39.6	47.0	62.8
Personnel expenses	-26.7	-39.0	-24.8	-24.8	-24.8
Depreciation	-8.2	-14.9	-23.8	-22.2	-21.1
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0
Operating exceptional Items	-23.8	-43.6	-111.2	2.8	8.7
Reported EBIT	35.2	57.7	-120.1	2.8	25.6
Income from associates	0.0	0.0	0.0	0.0	0.0
Other financials	18.4	7.8	-65.0	0.0	0.0
Interest income	5.4	10.8	0.2	0.2	0.2
Interest expense	-13.3	-21.0	-18.1	-19.9	-23.1
Net interest income/(charge)	-7.9	-10.2	-17.9	-19.8	-23.0
Exceptional Items	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	45.6	55.2	-203.0	-17.0	2.6
Taxation	-8.0	-22.5	76.1	6.4	-1.0
Minority interest	0.0	0.0	0.0	0.0	0.0
Discontinued Operations	0.0	0.0	0.0	0.0	0.0
Reported net income	37.6	32.7	-126.9	-10.6	1.6
Dividend	0.0	0.0	0.0	0.0	0.0
Retained profit	37.6	32.7	-126.9	-10.6	1.6

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2007	2008	2009e	2010e	2011e
Reported EBIT	35.2	57.7	-120.1	2.8	25.6
Depreciation (& amortisation if deducted)	8.2	14.9	23.8	22.2	21.1
Movement in working capital	-106.1	-174.0	164.5	-36.9	-70.8
Change in provisions/ other items	11.1	27.4	-65.0	0.0	0.0
Operating Cash Flow	-51.8	-74.0	3.2	-11.9	-24.1
Financing Activities	-13.3	-18.9	58.2	-13.4	-24.0
Net interest expense	-4.6	-4.0	-17.9	-19.8	-23.0
Dividends paid	0.0	0.0	0.0	0.0	0.0
Tax paid	-8.7	-14.9	76.1	6.4	-1.0
Investing Activities	-45.9	-95.8	-10.2	-11.6	-15.5
Capital expenditure	-46.4	-95.9	-10.2	-11.6	-15.5
Fixed asset/ investment sales	0.5	0.1	0.0	0.0	0.0
BCER free cash flow	-111.0	-188.7	51.2	-36.9	-63.5
Other financial items	212.3	76.6	0.0	0.0	0.0
Net acquisition/disposals	0.0	0.2	0.0	0.0	0.0
Proceeds from share issues	66.8	0.0	0.0	0.0	0.0
Other cash flow items	-28.0	-33.3	0.0	0.0	0.0
Change in net debt	-140.2	145.3	-51.2	36.9	63.5

Balance Sheet (€ mn)	2007	2008	2009e	2010e	2011e
Fixed assets	258.4	418.5	395.0	384.4	379.8
Goodwill in BS	17.4	17.4	17.4	17.4	17.4
Other intangibles	11.1	11.4	11.4	11.4	11.4
Tangible assets	57.3	189.7	176.1	165.5	159.9
Financial investments	144.4	154.3	144.4	144.4	145.4
Other LT financial assets	28.2	45.6	45.6	45.6	45.6
Working capital	180.2	283.1	153.5	186.7	249.6
Inventories	151.4	178.8	120.9	143.2	191.4
Trade debtors	134.0	251.1	106.2	130.6	174.6
Cash unavailable for investment	-41.2	-28.9	-14.5	-17.2	-22.9
Trade creditors	-64.0	-117.9	-59.0	-70.0	-93.5
Other Debtors/(creditors)	53.6	32.8	3.9	7.5	15.4
Other debtors	69.5	50.3	19.8	23.5	31.4
Other creditors	15.9	17.5	15.9	15.9	15.9
Net cash/(debt)	-114.9	-405.7	-354.5	-391.4	-455.0
Cash & securities	149.9	4.4	4.4	4.4	4.4
Gross debt	264.8	410.1	358.9	395.8	459.3
Provisions	14.2	26.7	21.2	21.2	22.2
Pension provisions (net)	0.0	0.0	0.0	0.0	0.0
Tax provisions (net)	5.5	11.3	5.5	5.5	6.5
Restructuring provisions	0.0	0.0	0.0	0.0	0.0
Other provisions	8.7	15.4	15.7	15.7	15.7
Net Equity	363.1	375.7	248.9	238.3	239.9
Ordinary Shareholders' funds	363.1	375.7	248.9	238.3	239.9
Preference shares	0.0	0.0	0.0	0.0	0.0
Minorities	0.0	0.0	0.0	0.0	0.0
Total assets (or liabilities)	763.1	903.1	646.1	686.0	781.5

### Suzlon

Profit & Loss (INR mn)	2008	2009	2010e	2011e	2012e
Total sales	136794.3	260817.0	208203.1	248608.6	280070.0
Less associate sales	0.0	0.0	0.0	0.0	0.0
Sales	136794.3	260817.0	208203.1	248608.6	280070.0
Variable costs	-88701.8	-168568.0	-134563.2	-160677.6	-181011.4
Gross profit	48092.5	92249.0	73639.9	87931.0	99058.6
Administrative expenses	-28183.5	-64332.9	-53251.0	-57470.4	-65548.5
Depreciation	-2893.6	-5731.4	-7141.7	-7296.1	-7474.8
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0
Other operating Items	2630.1	4487.5	0.0	0.0	0.0
Reported EBIT	19645.5	26672.2	13247.1	23164.5	26035.4
Income from associates	557.5	23.2	172.2	851.5	1504.4
Other financials	0.0	0.0	0.0	0.0	0.0
Interest income	0.0	0.0	0.0	0.0	0.0
Interest expense	-5969.4	-10539.4	-11751.1	-10718.6	-9727.8
Net interest income/(charge)	-5411.9	-10516.2	-11578.9	-9867.1	-8223.4
Exceptional Items	-1511.7	-8962.9	0.0	0.0	0.0
Reported pre-tax income	12721.9	7193.1	1668.2	13297.4	17812.1
Taxation	-1992.9	-2881.2	-440.5	-3664.6	-4801.6
Minority interest	-428.0	-1947.1	0.0	0.0	0.0
Discontinued Operations	0.0	0.0	0.0	0.0	0.0
Reported net income	10301.0	2364.8	1227.7	9632.8	13010.4
Dividend	1762.7	8.7	0.0	0.0	0.0
Retained profit	8538.3	2356.1	1227.7	9632.8	13010.4

Source: Company data, Barclays Capital

Common Cash Flow (INR mn)	2008	2009	2010e	2011e	2012e
Reported EBIT	19645.5	26672.2	13247.1	23164.5	26035.4
Movement in working capital	-10175.7	-40847.4	-39485.9	3358.2	-477.5
Depreciation (& amortisation if deducted)	2893.6	5731.4	7141.7	7296.1	7474.8
Change in provisions/ other items	4071.6	5075.4	0.0	0.0	0.0
Operating Cash Flow	16435.0	-3368.4	-19097.1	33818.8	33032.7
Financing Activities	-6435.5	-10280.2	-12191.6	-14383.1	-14529.4
Net interest expense	-3948.9	-6393.6	-11751.1	-10718.6	-9727.8
Dividends paid	-8.7	-1514.4	0.0	0.0	0.0
Tax paid	-2477.9	-2372.2	-440.5	-3664.6	-4801.6
Investing Activities	-47475.7	-76097.5	-2082.0	-2486.1	-2800.7
Capital expenditure	-21287.2	-33308.4	-2082.0	-2486.1	-2800.7
Fixed asset / investment sales / other items	-26188.5	-42789.1	0.0	0.0	0.0
BCER free cash flow	-37476.2	-89746.1	-33370.7	16949.5	15702.7
Other financial items	44712.4	45495.2	20000.0	-10000.0	-10000.0
Net acquisition/disposals	0.0	0.0	0.0	0.0	0.0
Proceeds from share issues	48494.5	4014.0	0.0	0.0	0.0
Other cash flow items	-1511.7	-5413.2	0.0	0.0	0.0
Change in net debt	-54219.0	45650.1	13370.7	-6949.5	-5702.7

Balance Sheet (INR mn)	2008	2009	2010e	2011e	2012e
Fixed assets	90135.4	155254.3	112419.8	107609.8	102935.8
Goodwill in BS	0.0	0.0	0.0	0.0	0.0
Other intangibles	0.0	0.0	0.0	0.0	0.0
Tangible assets	56876.7	152654.2	109928.6	105118.6	100444.5
Financial investments	31417.8	50.8	50.8	50.8	50.8
Other LT financial assets	1840.9	2549.3	2440.4	2440.4	2440.4
Working capital	26280.6	48726.0	73524.5	70166.3	70643.8
Inventories	40848.3	71736.5	54510.6	57180.0	56014.0
Trade debtors	50262.4	82936.8	66900.6	70166.3	79045.9
Cash unavailable for investment	0.0	0.0	0.0	0.0	0.0
Trade creditors	-64830.1	-105947.3	-47886.7	-57180.0	-64416.1
Oth on Dabbour // ova dibour	6668.7	22001.2	22225.2	23325.3	22225.2
Other Debtors/(creditors)		23881.2	23325.3		23325.3
Other debtors Other creditors	14893.5 -8224.8	33457.1 -9575.9	32582.7 -9257.4	32582.7 -9257.4	32582.7 -9257.4
Other creditors	-0224.0	-9575.9	-9257.4	-9257.4	-9257.4
Net cash/(debt)	-29743.9	-117997.3	-141933.6	-124984.1	-109281.5
Cash & securities	69602.0	30698.4	8517.9	15467.4	21170.1
Gross debt	99345.9	148695.7	150451.5	140451.5	130451.5
Provisions	2058.9	4417.4	1526.2	1526.2	1526.2
Pension provisions (net)	0.0	0.0	0.0	0.0	0.0
Tax provisions (net)	2058.9	4417.4	1526.2	1526.2	1526.2
Restructuring provisions	0.0	0.0	0.0	0.0	0.0
Other provisions	0.0	0.0	0.0	0.0	0.0
Net Equity	91281.9	108476.9	68839.9	77621.3	89127.3
Ordinary Shareholders' funds	81013.1	85317.4	61436.6	70217.9	81724.0
Preference shares	25.0	25.0	25.0	25.0	25.0
Minorities	10243.8	23134.5	7378.4	7378.4	7378.4
Total assets (or liabilities)	265741.6	374083.1	274931.6	283006.2	291748.4

Terna

Profit & Loss (€ mn)	2007	2008	2009e	2010e	2011e
Total sales	60.2	73.7	70.0	81.3	126.3
Less associate sales	0.0	0.0	0.0	0.0	0.0
Sales	60.2	73.7	70.0	81.3	126.3
Variable costs	-31.4	-40.5	-36.7	-38.6	-50.5
Gross profit	28.9	33.2	33.2	42.7	75.8
Administrative expenses	-2.6	-3.7	-3.5	-4.1	-6.3
Depreciation	-6.3	-8.0	-9.1	-12.3	-17.7
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0
Other operating Items	0.6	-0.1	1.5	1.1	-2.5
Reported EBIT	20.6	21.5	22.1	27.4	49.3
Income from associates	0.0	0.0	0.0	0.0	0.0
Other financials	0.0	0.0	0.0	0.0	0.0
Interest income	2.5	10.3	11.8	11.8	11.8
Interest expense	-4.2	-5.9	-9.3	-12.8	-15.9
Net interest income/(charge)	-1.7	4.4	2.5	-1.0	-4.1
Exceptional Items	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	18.9	25.9	24.7	26.5	45.2
Taxation	-4.6	-6.5	-6.2	-6.6	-11.3
Minority interest	0.0	0.0	0.0	0.0	0.0
Discontinued Operations	0.0	0.0	0.0	0.0	0.0
Reported net income	14.3	19.4	18.5	19.8	33.9
Dividend	0.0	0.0	0.0	0.0	0.0
Retained profit	14.3	19.4	18.5	19.8	33.9

Common Cash Flow (€ mn)	2007	2008	2009e	2010e	2011e
Reported EBIT	20.6	21.5	22.1	27.4	49.3
Movement in working capital	-25.4	0.7	4.7	1.1	-9.5
Depreciation (& amortisation if deducted)	6.3	8.0	9.1	12.3	17.7
Change in provisions/ other items	-1.8	0.0	0.0	0.0	0.0
Operating Cash Flow	-0.3	30.1	35.9	40.8	57.5
Financing Activities	-3.4	-2.0	-3.6	-7.6	-15.4
Net interest expense	-3.4	4.4	2.5	-1.0	-4.1
Dividends paid	0.0	0.0	0.0	0.0	0.0
Tax paid	0.0	-6.5	-6.2	-6.6	-11.3
Investing Activities	-51.9	-73.7	-117.0	-120.0	-120.0
Capital expenditure	-53.0	-73.7	-117.0	-120.0	-120.0
Fixed asset / investment sales / other items	1.1	0.0	0.0	0.0	0.0
BCER free cash flow	-55.5	-45.6	-84.7	-86.8	-77.9
Other financial items	42.1	0.0	0.0	0.0	0.0
Net acquisition/disposals	0.0	0.0	0.0	0.0	0.0
Proceeds from share issues	289.9	0.0	0.0	0.0	0.0
Other cash flow items	0.0	0.0	0.0	0.0	0.0
Change in net debt	-276.5	45.6	84.7	86.8	77.9

Balance Sheet (€ mn)	2007	2008	2009e	2010e	2011e
Fixed assets	190.3	256.1	247.0	411.7	514.0
Goodwill in BS	0.0	0.0	0.0	0.0	0.0
Other intangibles	1.4	1.4	1.4	1.4	1.4
Tangible assets	162.0	227.8	218.7	383.4	485.6
Financial investments	0.9	0.9	0.9	0.9	0.9
Other LT financial assets	26.0	26.0	26.0	26.0	26.0
Working capital	23.7	23.0	18.3	17.2	26.7
Inventories	1.5	1.8	1.7	2.0	3.1
Trade debtors	35.0	36.9	31.5	32.5	50.5
Cash unavailable for investment	0.0	0.0	0.0	0.0	0.0
Trade creditors	-12.8	-15.7	-14.9	-17.3	-26.9
Other Debtors/(creditors)	-57.6	-57.6	-57.6	-57.6	-57.6
Other debtors	0.8	0.8	0.8	0.8	0.8
Other creditors	-58.3	-58.3	-58.3	-58.3	-58.3
Net cash/(debt)	193.4	147.7	63.0	-23.8	-101.7
Cash & securities	295.2	295.2	295.2	295.2	295.2
Gross debt	101.8	147.4	232.2	318.9	396.8
Provisions	0.7	0.7	0.7	0.7	0.7
Pension provisions (net)	0.0	0.0	0.0	0.0	0.0
Tax provisions (net)	0.0	0.0	0.0	0.0	0.0
Restructuring provisions	0.0	0.0	0.0	0.0	0.0
Other provisions	0.7	0.7	0.7	0.7	0.7
Net Equity	349.2	368.6	387.1	406.9	440.8
Ordinary Shareholders' funds	348.7	368.1	386.6	406.4	440.3
Preference shares	0.0	0.0	0.0	0.0	0.0
Minorities	0.5	0.5	0.5	0.5	0.5
Total assets (or liabilities)	522.8	590.7	576.1	742.2	863.6

## Theolia

Profit & Loss (€ mn)	2007	2008	2009e	2010e	2011e
Total sales	306.5	70.0	305.4	233.5	234.8
Less associate sales	0.0	0.0	0.0	0.0	0.0
Sales	306.5	70.0	305.4	233.5	234.8
Variable costs	-230.8	-25.9	-229.0	-175.1	-176.1
Gross profit	75.7	44.0	76.3	58.4	58.7
Personnel expenses	-23.4	-20.8	-12.2	-11.7	-11.7
Depreciation	-18.4	-56.3	-14.6	-12.2	-13.3
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0
Other operating Items	-16.1	-163.3	-39.3	-22.5	-21.7
Reported EBIT	17.8	-196.5	10.2	12.0	11.9
Income from associates	0.0	0.0	0.0	0.0	0.0
Other financials	0.6	-3.8	0.0	0.0	0.0
Interest income	2.1	-12.5	2.7	2.7	2.7
Interest expense	-10.1	-26.6	-20.3	-27.5	-22.9
Net interest income/(charge)	-7.4	-42.9	-17.6	-24.8	-20.1
Exceptional Items	-56.5	0.0	0.0	0.0	0.0
Reported pre-tax income	-46.1	-239.4	-7.3	-12.8	-8.2
Taxation	-2.7	11.9	2.2	3.8	2.5
Minority interest	0.0	0.0	0.0	0.0	0.0
Discontinued Operations	0.0	-16.7	0.0	0.0	0.0
Reported net income	-48.8	-244.1	-5.1	-8.9	-5.8
Dividend	0.0	0.0	0.0	0.0	0.0
Retained profit	-48.8	-244.1	-5.1	-8.9	-5.8

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2007	2008	2009e	2010e	2011e
Reported EBIT	17.8	-196.5	10.2	12.0	11.9
Movement in working capital	1.8	-129.2	222.3	-127.8	130.2
Depreciation (& amortisation if deducted)	18.1	156.7	14.6	12.2	13.3
Change in provisions/ other items	2.6	62.0	0.0	0.0	0.0
Operating Cash Flow	40.2	-107.0	247.1	-103.6	155.4
Financing Activities	-10.5	-35.9	-15.4	-20.9	-17.7
Net interest expense	-7.9	-39.1	-17.6	-24.8	-20.1
Dividends paid	0.0	0.0	0.0	0.0	0.0
Tax paid	-2.5	3.2	2.2	3.8	2.5
Investing Activities	-134.7	-73.7	-91.6	-35.0	-35.2
Capital expenditure	-50.9	-46.4	-91.6	-35.0	-35.2
Fixed asset / investment sales / other items	-83.8	-27.3	0.0	0.0	0.0
BCER free cash flow	-104.9	-216.6	140.1	-159.6	102.6
Other financial items	16.7	-13.8	0.0	0.0	0.0
Net acquisition/disposals	-0.9	-4.9	0.0	0.0	0.0
Proceeds from share issues	96.2	1.6	0.0	0.0	0.0
Other cash flow items	-0.1	0.1	0.0	0.0	0.0
Change in net debt	-6.9	233.6	-140.1	159.6	-102.6

Balance Sheet (€ mn)	2007	2008	2009e	2010e	2011e
Fixed assets	645.2	575.4	460.1	482.9	504.8
Goodwill in BS	144.5	78.1	78.1	78.1	78.1
Other intangibles	46.8	94.2	94.2	94.2	94.2
Tangible assets	345.1	341.7	226.3	249.2	271.0
Financial investments	63.3	21.7	21.7	21.7	21.7
Other LT financial assets	45.5	39.8	39.8	39.8	39.8
Working capital	-15.9	91.6	61.7	189.5	59.3
Inventories	42.9	169.9	107.5	224.5	94.5
Trade debtors	87.4	24.9	45.8	35.0	35.2
Cash unavailable for investment	0.0	0.0	0.0	0.0	0.0
Trade creditors	-146.1	-103.2	-91.6	-70.0	-70.4
Other Debtors/(creditors)	16.0	40.8	40.8	40.8	40.8
Other debtors	58.4	57.7	57.7	57.7	57.7
Other creditors	-42.3	-16.8	-16.8	-16.8	-16.8
Net cash/(debt)	-223.2	-498.4	-358.3	-517.9	-415.3
Cash & securities	326.2	90.8	90.8	90.8	90.8
Gross debt	549.4	589.2	449.2	608.7	506.2
Provisions	19.1	39.6	39.6	39.6	39.6
Pension provisions (net)	0.3	0.1	0.1	0.1	0.1
Tax provisions (net)	18.2	22.0	22.0	22.0	22.0
Restructuring provisions	0.0	13.1	13.1	13.1	13.1
Other provisions	0.7	4.4	4.4	4.4	4.4
Net Equity	403.1	169.8	164.6	155.7	149.9
Ordinary Shareholders' funds	403.0	171.2	166.1	157.2	151.4
Preference shares	0.0	0.0	0.0	0.0	0.0
Minorities	0.1	-1.5	-1.5	-1.5	-1.5
Total assets (or liabilities)	1160.0	918.7	761.9	890.9	783.0

### Vestas

Profit & Loss (€ mn)	2007	2008	2009e	2010e	2011e
Total sales	4861.0	6035.0	7040.0	7508.7	10080.7
Less associate sales	0.0	0.0	0.0	0.0	0.0
Sales	4861.0	6035.0	7040.0	7508.7	10080.7
Variable costs	-4036.0	-4856.0	-5632.0	-6007.0	-8014.2
Gross profit	825.0	1179.0	1408.0	1501.7	2066.6
Administrative expenses	-244.0	-391.8	-389.7	-393.0	-574.7
Depreciation	-138.0	-119.3	-162.9	-196.4	-216.6
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0
Other operating Items	0.0	0.0	-36.3	1.9	6.5
Reported EBIT	443.0	668.0	819.1	914.2	1281.8
% margin	9.1%	11.1%	11.6%	12.2%	12.7%
Income from associates	0.0	0.0	0.0	0.0	0.0
Other financials	0.0	0.0	0.0	0.0	0.0
Interest income	19.0	66.0	5.3	5.6	4.4
Interest expense	-19.0	-20.0	-25.9	-25.9	-25.9
Net interest income/(charge)	0.0	46.0	-20.6	-20.3	-21.5
Exceptional Items	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	443.0	714.0	798.4	893.9	1260.3
Taxation	-152.0	-203.0	-223.6	-250.3	-352.9
Minority interest	0.0	0.0	0.0	0.0	0.0
Discontinued Operations	0.0	0.0	0.0	0.0	0.0
Reported net income	291.0	511.0	574.9	643.6	907.4
Dividend	0.0	0.0	0.0	0.0	0.0
Retained profit	291.0	511.0	574.9	643.6	907.4

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2007	2008	2009e	2010e	2011e
Reported EBIT	443.0	668.0	819.1	914.2	1281.8
Movement in working capital	190.0	-367.0	-648.7	-420.1	-791.8
Depreciation (& amortisation if deducted)	136.0	119.3	162.9	196.4	216.6
Change in provisions/ other items	60.0	0.0	0.0	0.0	0.0
Operating Cash Flow	829.0	420.3	333.3	690.6	706.5
Financing Activities	-182.0	-216.0	63.8	-270.6	-374.4
Net interest expense	0.0	23.0	-20.6	-20.3	-21.5
Other financial items	-54.0	-91.0	308.0	0.0	0.0
Dividends paid	0.0	0.0	0.0	0.0	0.0
Tax paid	-128.0	-148.0	-223.6	-250.3	-352.9
Investing Activities	-317.0	-680.0	-798.4	-387.9	-448.2
Capital expenditure	-347.0	-678.0	-798.4	-387.9	-448.2
Fixed asset / investment sales / other items	30.0	-2.0	0.0	0.0	0.0
BCER free cash flow	330.0	-475.8	-401.3	32.1	-116.0
Net acquisition/disposals	0.0	0.0	0.0	0.0	0.0
Proceeds from share issues	0.0	0.0	791.2	0.0	0.0
Other cash flow items	0.0	0.0	0.0	0.0	0.0
Change in net debt	-330.0	475.8	-389.9	-32.1	116.0

Balance Sheet (€ mn)	2007	2008	2009e	2010e	2011e
Fixed assets	1159.0	1821.0	2457.5	2648.9	2880.5
Goodwill in BS	354.0	374.0	544.0	564.0	584.0
Other intangibles	153.0	270.0	153.0	153.0	153.0
Tangible assets	638.0	1030.0	1495.5	1666.9	1878.5
Financial investments	14.0	147.0	265.0	265.0	265.0
Other LT financial assets	0.0	0.0	0.0	0.0	0.0
Working capital	-68.0	299.0	845.0	1254.2	1986.3
Inventories	1107.0	1612.0	1548.8	1351.6	1814.5
Trade debtors	1077.0	1601.0	1589.5	1620.3	2175.3
Cash unavailable for investment	-1092.0	-1489.0	-352.0	-375.4	-504.0
Trade creditors	-1160.0	-1425.0	-1941.3	-1342.2	-1499.5
Other Debtors/(creditors)	113.0	61.0	163.7	174.5	234.3
Other debtors	189.0	112.0	273.7	291.9	391.9
Other creditors	-76.0	-51.0	-110.1	-117.4	-157.6
Net cash/(debt)	614.0	39.0	96.1	128.2	12.2
Cash & securities	764.0	162.0	528.1	560.2	444.2
Gross debt	150.0	123.0	432.0	432.0	432.0
Provisions	302.0	265.0	265.0	265.0	265.0
Pension provisions (net)	2.0	2.0	2.0	2.0	2.0
Tax provisions (net)	0.0	0.0	0.0	0.0	0.0
Restructuring provisions	0.0	0.0	0.0	0.0	0.0
Other provisions	300.0	263.0	263.0	263.0	263.0
Net Equity	1516.0	1955.0	3297.3	3940.9	4848.3
Ordinary Shareholders' funds	1516.0	1955.0	3297.3	3940.9	4848.3
Preference shares	0.0	0.0	0.0	0.0	0.0
Minorities	0.0	0.0	0.0	0.0	0.0
Total assets (or liabilities)	4296.0	5308.0	6397.6	6472.9	7706.5

Source: Company data, Barclays Capital

# Wacker

Profit & Loss (€ mn)	2007	2008	2009e	2010e	2011e
Total sales	3781.3	4298.1	3785.0	4059.2	4202.2
Less associate sales	0.0	0.0	0.0	0.0	0.0
Sales	3781.3	4298.1	3785.0	4059.2	4202.2
Variable costs	-2629.3	-3110.1	-2738.8	-2937.3	-3040.7
Gross profit	1152.0	1188.0	1046.2	1122.0	1161.5
Administrative expenses	-128.2	-123.0	93.5	-38.1	-39.5
Depreciation	-351.9	-407.3	-526.4	-426.2	-441.2
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0
Other operating Items	-20.7	23.6	-403.1	-29.7	64.5
Reported EBIT	651.2	681.3	210.1	627.9	745.3
Income from associates	-1.6	-33.4	0.0	0.0	0.0
Other financials	-16.5	-11.8	-185.0	0.0	0.0
Interest income	0.0	0.0	0.0	0.0	0.0
Interest expense	-1.0	5.7	-12.8	-22.1	-14.7
Net interest income/(charge)	-19.1	-39.5	-197.8	-22.1	-14.7
Exceptional Items	0.0	0.0	0.0	0.0	0.0
Reported pre-tax income	632.1	641.8	12.3	605.8	730.6
Taxation	-209.9	-203.5	-3.9	-193.8	-233.8
Minority interest	-0.2	1.1	0.0	0.0	0.0
Discontinued Operations	0.0	0.0	0.0	0.0	0.0
Reported net income	422.0	439.4	8.4	411.9	496.8
Dividend	124.2	149.1	0.0	0.0	0.0
Retained profit	297.8	290.3	8.4	411.9	496.8

Source: Company data, Barclays Capital

Common Cash Flow (€ mn)	2007	2008	2009e	2010e	2011e
Reported EBIT	651.2	681.3	210.1	627.9	745.3
Movement in working capital	437.5	65.6	-141.8	-294.8	-158.4
Depreciation (& amortisation if deducted)	351.9	407.3	526.4	426.2	441.2
Change in provisions/ other items	92.8	49.6	-185.0	0.0	0.0
Operating Cash Flow	1533.4	1203.8	409.7	759.3	1028.2
Financing Activities	-335.1	-346.9	-16.7	-216.0	-248.5
Net interest expense	-1.0	5.7	-12.8	-22.1	-14.7
Dividends paid	-124.2	-149.1	0.0	0.0	0.0
Tax paid	-209.9	-203.5	-3.9	-193.8	-233.8
Investing Activities	-682.9	-1050.2	-681.3	-730.7	-630.3
Capital expenditure	-562.5	-747.1	-681.3	-730.7	-630.3
Fixed asset / investment sales / other items	-120.4	-303.1	0.0	0.0	0.0
BCR free cash flow	515.4	-193.3	-288.3	-187.3	149.4
Other financial items	-194.7	61.4	0.0	0.0	0.0
Net acquisition/disposals	4.1	25.7	0.0	0.0	0.0
Proceeds from share issues	0.0	0.0	0.0	0.0	0.0
Other cash flow items	-1.2	4.8	0.0	0.0	0.0
Change in net debt	-323.6	101.4	288.3	187.3	-149.4

Source: Company data, Barclays Capital

Balance Sheet (€ mn)	2007	2008	2009e	2010e	2011e
Fixed assets	2490.6	3161.0	3315.9	3620.3	3809.4
Goodwill in BS	0.0	0.0	0.0	0.0	0.0
Other intangibles	10.1	24.7	24.7	24.7	24.7
Tangible assets	2123.4	2659.6	2814.5	3118.9	3308.0
Financial investments	70.7	72.0	72.0	72.0	72.0
Other LT financial assets	286.4	404.7	404.7	404.7	404.7
Working capital	622.3	675.0	586.7	537.9	505.3
Inventories	403.5	504.9	378.5	324.7	294.2
Trade debtors	460.6	466.8	397.4	416.1	420.2
Cash unavailable for investment	0.0	0.0	0.0	0.0	1.0
Trade creditors	-241.8	-296.7	-189.3	-203.0	-210.1
Other Debtors/(creditors)	-99.3	-241.9	-186.0	-85.3	-29.2
Other debtors	196.9	187.1	175.4	181.6	184.9
Other creditors	-296.2	-429.0	-361.3	-266.9	-214.1
Net cash/(debt)	148.7	32.9	-255.4	-442.7	-293.3
Cash & securities	366.5	305.3	17.0	-170.3	-20.9
Gross debt	217.8	272.4	272.4	272.4	272.4
Provisions	1296.7	1544.2	1370.0	1127.1	992.2
Pension provisions (net)	369.2	376.1	376.1	376.1	376.1
Tax provisions (net)	118.6	142.3	142.3	142.3	142.3
Restructuring provisions	0.0	0.0	0.0	0.0	1.0
Other provisions	808.9	1025.8	851.6	608.7	472.8
Net Equity	1865.6	2082.8	2091.2	2503.1	2999.9
Ordinary Shareholders' funds	1850.3	2068.4	2076.8	2488.7	2985.5
Preference shares	15.3	14.4	14.4	14.4	14.4
Minorities	0.0	0.0	0.0	0.0	0.0
Total assets (or liabilities)	3918.1	4625.1	4284.2	4372.4	4687.8

Source: Company data, Barclays Capital

#### **European Renewables: Energy Efficiency**

## AMG Advanced Metallurgical Group N.V. (AMG NA / AMG.AS)

**Valuation Methodology:** Our EUR 5.0 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 5 years, sales growth of 4.0% capital employed growth of 50.0% and return on sales of 9.0%. We assume normalised growth of 3.3% long term return on sales of 8.3% and pre-tax WACC of 22.0%.

The first period recognises the higher-growth period as defined as a specific number of years, and operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high-growth period. The second period is for normalised margins of a more steady state business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of Renewables Companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other unusual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROE). We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

**Risks which May Impede the Achievement of the Price Target:** Timminco may not be able to ramp up production to meet expected deliveries; UMG material may face unexpected processing costs; and the company may be impacted by limited sources of finance.

# Abengoa SA (ABG SQ / ABG.MC)

**Valuation Methodology:** Our EUR 28.5 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 4 years, sales growth of 20.0% capital employed growth of 37.8% and return on sales of 9.3%. We assume normalised growth of 4.0% long term return on sales of 10.0% and pre-tax WACC of 15.1%.

Risks which May Impede the Achievement of the Price Target: The solar projects may deliver lower-than-estimated electricity output due to poor weather conditions. Infrastructure projects may be deferred due to limited availability of finance. Margins for the Bioenergy division may be lower than forecast due to raw material price volatility.

## Outotec Oyj (OTE1V FH / OTE1V.HE)

**Valuation Methodology:** Our EUR 32.5 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 5 years, sales growth of 3.0% capital employed growth of 67.5% and return on sales of 8.0%. We assume normalised growth of 2.0% long term return on sales of 8.0% and pre-tax WACC of 13.3%.

Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first period recognises the higher-growth period as defined as a specific number of years, an operating return and sales growth addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high-growth period. The second period is for normalised margins of a more steady business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of Renewables Companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other unusual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROCE). We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: The company may see a further material decline in demand; the company may face further charges for turn key projects impacting earnings; and the order backlog may see deferrals or cancellations.

# European Renewables: Wind

## Acciona SA (ANA SQ / ANA.MC)

**Valuation Methodology:** Our EUR 105.0 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 3 years, sales growth of 8.0% capital employed growth of 26.5% and return on sales of 10.0%. We assume normalised growth of 3.4% long term return on sales of 12.5% and pre-tax WACC of 16.2%.

Risks which May Impede the Achievement of the Price Target: Annual output from installed wind capacity may be lower than forecasts due to varying wind conditions. Turbine ASPs may be negatively impacted by incremental competition. Infrastructure projects may be deferred due to limited availability of finance.

#### Clipper Windpower PLC (CWP LN / CWPR.L)

**Valuation Methodology:** Our GBP 1.95 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 7 years, sales growth of 70.5% capital employed growth of 10.0% and return on sales of 7.0%. We assume normalised growth of 4.0% long term return

on sales of 7.0% and pre-tax WACC of 9.9%. Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first recognises a higher growth period as defined as a specific number of years, an operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high-growth period. The second period is for normalised margins of a more steady business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of renewables companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROC). We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: Clipper may not be successful in commissioning all turbines within the contracted time frame; further remediation work may be required for existing turbines already operated; and the company may face order deferrals or cancellations over the coming twelve months.

# EDF Energies Nouvelles S.A. (EEN FP / EEN.PA)

Valuation Methodology: Our EUR 36 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 4 years, sales growth of 18.0% capital employed growth of 12.0% and return on sales of 20.0%. We assume normalised growth of 3.0% long term return on sales of 8.0% and pre-tax WACC of 10.2%. Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first recognises a higher growth period as defined as a specific number of years, an operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high-growth period. The second period is for normalised margins of a more steady business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of renewables companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROC). We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: The company may exceed installations ahead of current plans; financing for new projects may improve materially; and EDF Energies Reparties division might outperform despite a challenging economic environment.

# EDP Renovaveis S.A. (EDPR PL / EDPR.LS)

Valuation Methodology: Our EUR 8.25 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 7 years, sales growth of 25.0% capital employed growth of 11.0% and return on sales of 45.0%. We assume normalised growth of 3.0% long term return on sales of 39.5% and pre-tax WACC of 14.0%. The first period recognises the higher-growth period as defined as a specific number of years, an operating return and sales growth addition; to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high-growth period. The second period is for normalised margins on a more steady base, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, with the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of renewable companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other annual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define return on capital employed (ROE). We believe that by representing the total commitment of capital by management, CE defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: The company might adjust its capacity expansion roll-out as a result of a lack of project and tax equity financing.

### Gamesa Corporacion Tecnologica S.A. (GAM SM / GAM.MC)

**Valuation Methodology**: Our EUR 14.0 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 2 years, sales growth of 6.0% capital employed growth of 56.0% and return on sales of 8.0%. We assume normalised growth of 3.0% long term return on sales of 9.0% and pre-tax WACC of 14.3%.

Risks which May Impede the Achievement of the Price Target: Gamesa may see material deferrals from major customers; pricing for turbines may decline impacting earnings and the company may not be successful in rolling out its G10 turbine.

#### Greentech Energy Systems A/S (GES DC / G3E.CO)

Valuation Methodology: Our DKR 16.0 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 5 years,

sales growth of 42.5% capital employed growth of 5.0% and return on sales of 34.0%. We assume normalised growth of 3.5% long term return on sales of 31.0% and pre-tax WACC of 9.8%.

Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first period recognizes the higher growth period as defined as a specific number of years, an operating return and sales gown addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high growth period. The second period is for normalized margins of a more stead stt uiess, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalized level. Together, this is an extension of the EV/EBIT and EV/CE methodology, movig wa fomthe simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation ofrenewabes ompnie fids limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and oter unusul itms. ur pefered methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed ROCE). Webeliee tha by rpreseting the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: Greentech may see blade rectification completed with limited impact to revenues; the company may secure finance to build out wind farms; and the company may secure significant further wind farm construction permits.

### Hansen Transmissions International N.V. (HSN LN / HSNT.L)

Valuation Methodology: Our GBP 1.3 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 4 years, sales growth of 7.0% capital employed growth of 20.0% and return on sales of 11.5%. We assume normalised growth of 3.9% long term return on sales of 13.0% and pre-tax WACC of 10.4%. Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first period recognises the higher-growth period as defined as a specific number of years, an operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high-growth period. The second period is for normalised margins of a more steady state business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of Renewable Companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other unusual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROCE). We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: Hansen's competitive position may decline as a result of new entrants; pricing for gearboxes may fall as a result of renegotiations with major customers; warranty costs for gearboxes may increase substantially impacting margins.

### Iberdrola Renovables S.A. (IBR SM / IBR.MC)

Valuation Methodology: Our EUR 3.95 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 5 years, sales growth of 23.0% capital employed growth of 12.5% and return on sales of 33.0%. We assume normalised growth of 6.0% long term return on sales of 44.4% and pre-tax WACC of 16.3%. Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first recognises the higher-growth period as defined as a specific number of years, an operating return and sales growth addition; to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high-growth period. The second period is for normalised margins on a more steady base, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, with the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of renewable companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other annual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define return on capital employed (ROE). We believe that by representing the total commitment of capital by management, CE defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: The company may face difficulties securing finance for new turbines; regulatory support may not deliver improvements in major countries, such as the US, impacting revenues; and financing difficulties for turbine suppliers may make deliveries less reliable.

## Nordex AG (NDX1 GF / NDXGk.F)

**Valuation Methodology:** Our EUR 13.0 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 2 years, sales growth of 5.0% capital employed growth of 15.0% and return on sales of 6.0%. We assume normalised growth of 5.0% long term return on sales of 8.4% and pre-tax WACC of 18.7%.

Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first recognises the higher-growth period as defined as a specific number of years, an operating return and sales growth addition; to include a more accurate reflection of the capital employed for the

sector, we include an assumption for the scale of capital employed growth in the first high-growth period. The second period is for normalised margins on a more steady base, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, with the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of renewable companies finds limited relevance in the use of P/E or P/E relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other annual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define return on capital employed (ROE). We believe that by representing the total commitment of capital by management, CE defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

**Risks which May Impede the Achievement of the Price Target:** Nordex may not see further material delays in orders; turbine pricing may improve further than expected; and international expansion may lead to incremental profits.

# REpower Systems AG (RPW GR / RPWGn.DE)

Valuation Methodology: Our EUR 110 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 5 years, sales growth of 9.0% capital employed growth of 4.0% and return on sales of 5.0%. We assume normalised growth of 0.5% long-term return on sales of 10.0% and pre-tax WACC of 11.8%. Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first period recognizes the higher growth period as defined as a specific number of years, an operating return and sales growth addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high growth period. The second period is for normalized margins of a more steady state business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalized level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of renewable companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other unusual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROCE) We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: REpower may not be able to leverage the Indian based supply to raise margins; management changes may impact the technology positioning of the company; and new more efficient turbines may lead to REpower's turbines being considered uncompetitive.

## Suzlon Energy Limited (SUEL IN / SUZL.BO)

Valuation Methodology: Our INR 125 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 5 years, sales growth of 13.0% capital employed growth of 36.5% and return on sales of 13.4%. We assume normalised growth of 3.0% long term return on sales of 12.0% and pre-tax WACC of 12.6%. Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first recognises the higher growth period as defined as a specific number of years, an operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high-growth period. The second period is for normalised margins of a more steady state business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of Renewables Companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other unusual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROCE). W believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: The company may face greater competition in domestic markets reducing margins; international S88 turbine may face further remediation costs; and new turbine development may be delayed.

# Terna Energy SA (TENERGY GA / TENr.AT)

Valuation Methodology: Our EUR 5.75 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 4 years, sales growth of 25.0% capital employed growth of 22.0% and return on sales of 27.5%. We assume normalised growth of 4.0% long term return on sales of 42.3% and pre-tax WACC of 15.5%. Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first period recognises the higher-growth period as defined as a specific number of years, an operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high-growth period. The second period is for normalised margins of a more steady state business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of Renewable Companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other unusual items. Our

preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROE). We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: The company may be adversely impact by a change in regulatory environment; the company may be unable to have all wind farms re-permitted; and the company may not secure finance for their existing pipeline.

#### Theolia S.A. (TEO FP / TEO.PA)

Valuation Methodology: Our EUR 2.75 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 5 years, sales growth of 30.0% capital employed growth of 4.8% and return on sales of 13.5%. We assume normalised growth of 3.0% long term return on sales of 25.0% and pre-tax WACC of 11.4%. Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first recognises the higher growth period as defined as a specific number of years, an operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high growth period. The second period is for normalised margins of a more steady state business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of renewables companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other unusual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROCE). We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: Theolia may not secure finance to continue developing wind farms; the regulatory environment may change adversely and the company may be unable to secure turbines at a favourable level.

### Vestas Wind Systems A/S (VWS DC / VWS.CO)

Valuation Methodology: Our DKK 540 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 3 years, sales growth of 12.5% capital employed growth of 10.0% and return on sales of 12.0%. We assume normalised growth of 4.5% long term return on sales of 15.0% and pre-tax WACC of 15.4%. Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first recognises the higher growth period as defined as a specific number of years, an operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high growth period. The second period is for normalised margins of a more steady state business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of renewables companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other unusual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROCE). We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: The company may not be successful in winning new orders; warranty costs may increase, impacting earnings; and new entrants may gain market share in emerging markets.

# European Renewables: Solar

### Conergy AG (CGY GR / CGYG.DE)

**Valuation Methodology:** Our EUR 0.8 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 4 years, sales growth of 17.0% capital employed growth of 15.0% and return on sales of 3.0%. We assume normalised growth of 4.0% long term return on sales of 7.0% and pre-tax WACC of 12.8%.

Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first period recognises the higher-growth period as defined as a specific number of years, an operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high-growth period. The second period is for normalised margins of a more steady state business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of Renewables Companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other unusual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROCE. We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those

earnings.

Risks which May Impede the Achievement of the Price Target: The company may face significantly lower pricing for cells; the company may be unable to finance their capacity expansion plans for this year and the company may find its UMG material carries significantly higher processing costs.

## Manz Automation AG (M5Z GR / M5ZG.F)

Valuation Methodology: Our EUR 55.0 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 3 years, sales growth of 8.0% capital employed growth of 20.0% and return on sales of 10.5%. We assume normalised growth of 5.0% long term return on sales of 10.0% and pre-tax WACC of 26.6%. Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first recognises the higher-growth period as defined as a specific number of years, and operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high-growth period. The second period is for normalised margins of a more steady state business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of Renewables Companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other unusual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROCE). We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: The company may suffer from a significant downturn in the LCD business; the company may not be able to successfully integrate acquisitions made last year, impacting profitability; and the company may see deferrals or cancellations for new solar capacity projects currently confirmed.

#### Meyer Burger Technology AG (MBTN SW / MBTN.S)

**Valuation Methodology:** Our SFR 250.0 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 6 years, sales growth of 12.0% capital employed growth of 20.0% and return on sales of 9.0%. We assume normalised growth of 3.0% long term return on sales of 9.5% and pre-tax WACC of 25.9%.

Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first period recognises the higher growth period as defined as a specific number of years, an operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high growth period. The second period is for normalised margins of a more steady business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of renewable companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and othe unusual terms. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROCE). We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: The company may not be successful in winning new orders; warranty claims may exceed expectations impacting earnings; and technology may replace the steps in the supply chain for which the company is responsible.

# PV Crystalox Solar PLC (PVCS LN / PVCS.L)

Valuation Methodology: Our GBP 0.8 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 6 years, sales growth of 6.0% capital employed growth of 63.7% and return on sales of 32.0%. We assume normalised growth of 4.0% long term return on sales of 29.0% and pre-tax WACC of 21.5%. Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first period recognises the higher-growth period as defined as a specific number of years, an operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high-growth period. The second period is for normalised margins of a more steady state business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of Renewables Companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other unusual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROE). We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: PV Crystalox may experience delays in the ramp up phase of its polysilicon facility; the company could be materially impacted by any order deferrals from major customers (top 3 clients: 65% of revenues); and PV Crystalox could face price pressure as a result of the renegotiation of prices across the solar value chain. PV Crystalox may be able to ramp up

rapidly its polysilicon facility to full production capacity, enabling the company to compete on wafer prices and gain market share.

#### Phoenix Solar AG (PS4 GR / PS4G.F)

Valuation Methodology: Our EUR 50 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 6 years, sales growth of 3.5% capital employed growth of 45.5% and return on sales of 9.0%. We assume normalised growth of 4.0% long term return on sales of 9.0% and pre-tax WACC of 16.1%. Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first period recognises the higher-growth period as defined as a specific number of years, an operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high-growth period. The second period is for normalised margins of a more steady state business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of Renewables companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other unusual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROE). We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: The company may face negative regulatory changes in its domestic markets; the lack of financing may increase working development materially; and the company may not be able to secure new suppliers to maintain attractive financial returns.

## Q-Cells SE (QCE GR / QCEG.F)

Valuation Methodology: Our EUR 10.5 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 3 years, sales growth of 10.5% capital employed growth of 10.5% and return on sales of 10.0%. We assume normalised growth of 2.5% long term return on sales of 11.0% and pre-tax WACC of 17.2%. Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first period recognises the higher-growth period as defined as a specific number of years, an operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high-growth period. The second period is for normalised margins of a more steady state business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of renewables companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other unusual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROCE). We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: The company may face significantly lower pricing for cells; the company may be unable to finance their capacity expansion plans for this year and the company may find its UMG material carries significantly higher processing costs.

# Renewable Energy Corp. ASA (REC NO / REC.OL)

**Valuation Methodology:** Our NOK 70 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 7 years, sales growth of 16.5% capital employed growth of 7.0% and return on sales of 25.0%. We assume normalised growth of 3.0% long term return on sales of 29.6% and pre-tax WACC of 14.8%.

Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first recognises the higher growth period as defined as a specific number of years, an operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high growth period. The second period is for normalized margins of a more steady state business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of renewables companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other unusual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROCE). We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: The company may not be successful in ramping up Moses Park; FBR technology may not meet market expectations; and the pricing for wafers/silicon may decline materially.

#### Roth & Rau AG (R8R GR / R8RG.F)

Valuation Methodology: Our EUR 30 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 3 years,

sales growth of 11.0% capital employed growth of 15.0% and return on sales of 11.0%. We assume normalised growth of 7.0% long term return on sales of 5.3% and pre-tax WACC of 18.7%. Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first period recognises the higher-growth period as defined as a specific number of years, an operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high-growth period. The second period is for normalised margins of a more steady state business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of renewables companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other unusual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROCE). We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

**Risks which May Impede the Achievement of the Price Target:** The company may see a significant increase in order backlog; the company may begin to leverage its joint venture to gain new customers; and the company may find delivery of turnkey projects are not deferred.

### SMA Solar Technology AG (S92 GF / S92G.F)

**Valuation Methodology:** Our EUR 125 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 4 years, sales growth of 30.0% capital employed growth of 10.0% and return on sales of 19.0%. We assume normalised growth of 3.5% long term return on sales of 15.5% and pre-tax WACC of 21.1%.

**Risks which May Impede the Achievement of the Price Target:** The company may face incremental competition in the medium power segment from localised, small inverter manufacturers and this may impact revenue growth. Price declines in the solar value chain may be higher than our estimates.

# Solar Millennium AG (S2M GR / S2MG.F)

Valuation Methodology: Our EUR 35.0 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 5 years, sales growth of 40.0% capital employed growth of 20.0% and return on sales of 27.0%. We assume normalised growth of 1.0% long term return on sales of 34.5% and pre-tax WACC of 12.9%. Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first period recognises the higher-growth period as defined as a specific number of years, an operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high growth period. The second period is for normalised margins of a more steady state business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of renewables companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other unusual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROCE). We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

**Risks which May Impede the Achievement of the Price Target:** The company may not be successful in securing finance for new projects; commissioning of existing projects may take longer than anticipated; and sell down existing projects may not meet market expectations.

#### SolarWorld AG (SWV GR / SWVG.F)

Valuation Methodology: Our EUR 15.5 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 2 years, sales growth of 7.0% capital employed growth of 38.0% and return on sales of 24.6%. We assume normalised growth of 4.0% long term return on sales of 11.0% and pre-tax WACC of 17.7%. Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first period recognises the higher-growth period as defined as a specific number of years, and operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high-growth period. The second period is for normalised margins of a more steady state business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of Renewables Companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other unusual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROCE). We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: The company may suffer from weaker than expected wafer pricing; the company may not be able to test UMG successfully; and the company may not be able to leverage growth in the US market relative to its peers.

# Solaria Energia y Medio Ambiente S.A. (SLR SM / SLRS.MC)

Valuation Methodology: Our EUR 2.1 Price Target is derived from our Renewables Valuation Model assuming a high-growth period of one year, sales growth of 2.0%, capital employed growth of 35.0% and a return on sales of 5.0%. We assume normalised growth of 2.0%, long-term return on sales of 12.0% and a pre-tax WACC of 28.6%. Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first period recognises the higher-growth period as defined as a specific number of years, an operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high-growth period. The second period is for normalised margins of a more steady state business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of Renewables Companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other unusual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROCE. We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: Solaria may not receive cash as expected for projects completed, further impacting its working capital; finance costs for new projects may increase, reducing Solaria's IRRs; and the company may not be successful in its vertical integration approach.

#### Solon SE (SOO1 GR / SOOG.F)

Valuation Methodology: Our EUR 6.5 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 2 years, sales growth of 7.7% capital employed growth of 32.5% and return on sales of 6.0%. We assume normalised growth of 2.5% long term return on sales of 5.0% and pre-tax WACC of 13.7%. Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first period recognises the higher-growth period as defined as a specific number of years, an operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high-growth period. The second period is for normalised margins of a more steady state business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of renewables companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other unusual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROCE). We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: The company may secure pricing much better than expected, increasing IRRs and operating margins; the working capital build up may be less as a result of improved payment terms not anticipated; and the company may benefit from strength in its domestic market.

#### Wacker Chemie AG (WCH GR / WCHG.DE)

Valuation Methodology: Our EUR145 price target is derived from our Renewables Valuation Model, assuming a high-growth period of five years, sales growth of 5.5%, capital employed growth of 51.5% and a return on sales of 18.0%. We assume normalised growth of 1.0%, long-term return on sales of 15.0%, and a pre-tax WACC of 17.7%. The first period recognises the higher-growth period as defined as a specific number of years, an operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high-growth period. The second period is for normalised margins of a more steady state business, with similar assumptions for operating return and sales growth but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of Renewables Companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other unusual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROCE). We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: The company may face difficulties to increase polysilicon production; new contracts may be agreed at significantly below market expectations; and UMG may pose an increasing substitution risk for the company.

#### centrotherm photovoltaics AG (CTN GR / CTNG.DE)

Valuation Methodology: Our EUR 47.5 Price Target is derived from our Renewables Valuation Model assuming a high growth period of 3 years, sales growth of 28.0% capital employed growth of 12.0% and return on sales of 12.0%. We assume normalised growth of 3.0% long term return on sales of 7.0% and pre-tax WACC of 19.6%. Our Barclays Capital Renewables Valuation Model assumes a two-stage growth period. The first period recognises the higher-growth period as defined as a specific number of years, an operating return and sales growth. In addition, to include a more accurate reflection of the capital employed for the sector, we include an assumption for the scale of capital employed growth in the first high-growth period. The second period is for normalised margins of a more steady business, with similar assumptions for operating return and

sales growth, but without a specific growth rate for capital employed, which we assume to be at a more normalised level. Together, this is an extension of the EV/EBIT and EV/CE methodology, moving away from the simple mathematical derivation of what particular multiples are for a company to a model that generates what we consider to be the fair value multiple under a given set of variable assumptions. Our approach to the valuation of renewables companies finds limited relevance in the use of PE or PE relative valuation approaches, particularly given the different impact of IFRS on annual impairment tests for goodwill, different jurisdiction tax rates, treatment of restructuring and other unusual items. Our preferred methodology focuses on valuing companies using identical components that we use in analysing company performance, operating profitability (EBIT) and capital employed (CE), which, together, define Return on Capital Employed (ROCE). We believe that by representing the total commitment of capital by management, Capital Employed defines the required earnings power or potential of a company, and ROCE is an expression of those earnings.

Risks which May Impede the Achievement of the Price Target: The company the may not be able to maintain margins if turn key projects are deferred; order backlog may decline significantly impacting research and development and their investment in CIGS technology may not become commercialised.

Source: Barclays Capital

### ANALYST(S) CERTIFICATION(S)

We, Arindam Basu, Rupesh Madlani and Julien Roques, hereby certify (1) that the views expressed in this research report accurately reflect our personal views about any or all of the subject securities or issuers referred to in this research report and (2) no part of our compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this research report.

#### IMPORTANT DISCLOSURES

For current important disclosures regarding companies that are the subject of this research report, please send a written request to: Barclays Capital Research Compliance, 745 Seventh Avenue, 17th Floor, New York, NY 10019 or refer to www.lehman.com/disclosures or call 1-212-526-1072.

The analysts responsible for preparing this research report have received compensation based upon various factors including the firm's total revenues, a portion of which is generated by investment banking activities.

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#### Risk Disclosure(s)

The convertible valuations are based on Barclays Capital proprietary convertible valuation model, under which key assumptions relate to credit spread and equity volatility metrics. Material changes in any of these variables can have a significant impact on valuation. Upside/downside analysis takes into consideration likely future valuation and expected trading patterns, among others. It is based on a total return participation of the convertible relative to a +/ 25% (unless otherwise specified) change in the common stock's price over a one year investment horizon. A material change in the company's financial situation can significantly alter this assessment.

## Primary Stocks (Ticker, Date, Price)

Abengoa SA (ABG.MC, 11-Jan-2010, EUR 23.30), 1-Overweight/2-Neutral

Acciona SA (ANA.MC, 11-Jan-2010, EUR 95.63), 2-Equal Weight/1-Positive

AMG Advanced Metallurgical Group N.V. (AMG.AS, 11-Jan-2010, EUR 9.37), 3-Underweight/2-Neutral

centrotherm photovoltaics AG (CTNG.DE, 11-Jan-2010, EUR 45.33), 1-Overweight/1-Positive

Clipper Windpower PLC (CWPR.L, 11-Jan-2010, GBP 1.75), 2-Equal Weight/1-Positive

Conergy AG (CGYG.DE, 11-Jan-2010, EUR 0.87), 2-Equal Weight/1-Positive

EDF Energies Nouvelles S.A. (EEN.PA, 11-Jan-2010, EUR 38.47), 2-Equal Weight/1-Positive

EDP Renovaveis S.A. (EDPR.LS, 11-Jan-2010, EUR 6.97), 1-Overweight/1-Positive

Gamesa Corporacion Tecnologica S.A. (GAM.MC, 11-Jan-2010, EUR 12.64), 2-Equal Weight/1-Positive

Greentech Energy Systems A/S (G3E.CO, 11-Jan-2010, DKK 24.60), 3-Underweight/1-Positive

Hansen Transmissions International N.V. (HSNT.L, 11-Jan-2010, GBP 1.10), 1-Overweight/1-Positive

Iberdrola Renovables S.A. (IBR.MC, 11-Jan-2010, EUR 3.43), 1-Overweight/1-Positive

Manz Automation AG (M5ZG.F, 11-Jan-2010, EUR 65.11), 3-Underweight/1-Positive

Meyer Burger Technology AG (MBTN.S, 11-Jan-2010, CHF 271.50), 2-Equal Weight/1-Positive

Nordex AG (NDXGk.F, 11-Jan-2010, EUR 11.25), 2-Equal Weight/1-Positive

Outotec Oyj (OTE1V.HE, 11-Jan-2010, EUR 25.76), 1-Overweight/2-Neutral

Phoenix Solar AG (PS4G.F, 11-Jan-2010, EUR 42.98), 1-Overweight/1-Positive

PV Crystalox Solar PLC (PVCS.L, 11-Jan-2010, GBP 0.68), 1-Overweight/1-Positive

Q-Cells SE (QCEG.F, 11-Jan-2010, EUR 12.59), 2-Equal Weight/1-Positive

Renewable Energy Corp. ASA (REC.OL, 11-Jan-2010, NOK 40.85), 1-Overweight/1-Positive

REpower Systems AG (RPWGn.DE, 11-Jan-2010, EUR 146.75), 2-Equal Weight/1-Positive

Roth & Rau AG (R8RG.F, 11-Jan-2010, EUR 32.20), 2-Equal Weight/1-Positive

# IMPORTANT DISCLOSURES CONTINUED

SMA Solar Technology AG (S92G.F, 11-Jan-2010, EUR 97.10), 1-Overweight/1-Positive

Solar Millennium AG (S2MG.F, 11-Jan-2010, EUR 44.22), 2-Equal Weight/1-Positive

Solaria Energia y Medio Ambiente S.A. (SLRS.MC, 11-Jan-2010, EUR 2.85), 3-Underweight/1-Positive

SolarWorld AG (SWVG.F, 11-Jan-2010, EUR 16.36), 2-Equal Weight/1-Positive

Solon SE (SOOG.F, 11-Jan-2010, EUR 8.42), 3-Underweight/1-Positive

Suzlon Energy Limited (SUZL.BO, 11-Jan-2010, INR 94.75), 1-Overweight/1-Positive

Terna Energy SA (TENr.AT, 11-Jan-2010, EUR 6.60), 2-Equal Weight/1-Positive

Theolia S.A. (TEO.PA, 11-Jan-2010, EUR 3.47), 2-Equal Weight/1-Positive

Vestas Wind Systems A/S (VWS.CO, 11-Jan-2010, DKK 327.60), 1-Overweight/1-Positive

Wacker Chemie AG (WCHG.DE, 11-Jan-2010, EUR 120.05), 1-Overweight/1-Positive

#### Guide to the Barclays Capital Fundamental Equity Research Rating System:

Our coverage analysts use a relative rating system in which they rate stocks as 1-Overweight, 2-Equal Weight or 3-Underweight (see definitions below) relative to other companies covered by the analyst or a team of analysts that are deemed to be in the same industry sector (the "sector coverage universe").

In addition to the stock rating, we provide sector views which rate the outlook for the sector coverage universe as 1-Positive, 2-Neutral or 3-Negative (see definitions below). A rating system using terms such as buy, hold and sell is not the equivalent of our rating system. Investors should carefully read the entire research report including the definitions of all ratings and not infer its contents from ratings alone.

#### Stock Rating

- **1-Overweight** The stock is expected to outperform the unweighted expected total return of the sector coverage universe over a 12-month investment horizon.
- **2-Equal Weight** The stock is expected to perform in line with the unweighted expected total return of the sector coverage universe over a 12-month investment horizon.
- **3-Underweight** The stock is expected to underperform the unweighted expected total return of the sector coverage universe over a 12-month investment horizon.

**RS-Rating Suspended** - The rating and target price have been suspended temporarily due to market events that made coverage impracticable or to comply with applicable regulations and/or firm policies in certain circumstances including when Barclays Capital is acting in an advisory capacity in a merger or strategic transaction involving the company.

## Sector View

AL --- -- CA (ADC AAC)

- **1-Positive** sector coverage universe fundamentals/valuations are improving.
- 2-Neutral sector coverage universe fundamentals/valuations are steady, neither improving nor deteriorating.
- 3-Negative sector coverage universe fundamentals/valuations are deteriorating.

Below is the list of companies that constitute the "sector coverage universe":

#### **European Renewables: Energy Efficiency**

Abengoa SA (ABG.MC)	AMG Advanced Metallurgical Group N.V. (AMG.AS)	Outotec Oyj (OTETV.HE)
European Renewables: Solar		
centrotherm photovoltaics AG (CTNG.DE)	Conergy AG (CGYG.DE)	Manz Automation AG (M5ZG.F)
Meyer Burger Technology AG (MBTN.S)	Phoenix Solar AG (PS4G.F)	PV Crystalox Solar PLC (PVCS.L)
Q-Cells SE (QCEG.F)	Renewable Energy Corp. ASA (REC.OL)	Roth & Rau AG (R8RG.F)
SMA Solar Technology AG (S92G.F)	Solar Millennium AG (S2MG.F)	Solaria Energia y Medio Ambiente S.A. (SLRS.MC)
SolarWorld AG (SWVG.F)	Solon SE (SOOG.F)	Wacker Chemie AG (WCHG.DE)
European Renewables: Wind		
Acciona SA (ANA.MC)	Clipper Windpower PLC (CWPR.L)	EDF Energies Nouvelles S.A. (EEN.PA)
EDP Renovaveis S.A. (EDPR.LS)	Gamesa Corporacion Tecnologica S.A. (GAM.MC)	Greentech Energy Systems A/S (G3E.CO)
Hansen Transmissions International N.V. (HSNT.L)	Iberdrola Renovables S.A. (IBR.MC)	Nordex AG (NDXGk.F)
REpower Systems AG (RPWGn.DE)	Suzlon Energy Limited (SUZL.BO)	Terna Energy SA (TENr.AT)

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# IMPORTANT DISCLOSURES CONTINUED

Theolia S.A. (TEO.PA)

Vestas Wind Systems A/S (VWS.CO)

#### Distribution of Ratings:

Barclays Capital Inc. Equity Research has 1421 companies under coverage.

41% have been assigned a 1-Overweight rating which, for purposes of mandatory regulatory disclosures, is classified as a Buy rating; 46% of companies with this rating are investment banking clients of the Firm.

44% have been assigned a 2-Equal Weight rating which, for purposes of mandatory regulatory disclosures, is classified as a Hold rating; 40% of companies with this rating are investment banking clients of the Firm.

13% have been assigned a 3-Underweight rating which, for purposes of mandatory regulatory disclosures, is classified as a Sell rating; 34% of companies with this rating are investment banking clients of the Firm.

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São Paulo

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