Company In-Depth

14 June 2007 | 24 pages

Suzlon Energy (SUZL.BO)

Upgrading to Buy: Resuming Coverage

Rating change ☑
Target price change ☑
Estimate change ☑

- **Upgrade to Buy, target price Rs1,700** — We resume coverage on Suzlon with an upgrade to Buy (1M) from Sell (3M) as uncertainties related to the REPower acquisition and margin contraction are things of the past. Our new target price of Rs1,700 is based on a target P/E multiple of 23x FY09E which is well supported by EPS CAGR of 44% and RoEs in the 30-40% range over FY07-10E.
- **Don't ignore the volume growth** — We believe that the 670bps FY07 WTG margin compression is unnecessarily clouding the robust wind turbine generator (WTG) volume CAGR of 45% over FY07-10E. EBITDA margins appear close to a trough and EPS should progressively track WTG volume growth.
- **Clever deal structuring** — The fact that Suzlon will stagger the payment of €1.2bn for REPower over three years implies that it would be EPS accretive from CY08E/FY09E onwards.
- **REPower a good strategic fit** — REPower is a good strategic fit for Suzlon as it provides: (1) Immediate access to Europe, the largest WTG market over the next 5 years; (2) REPower's low margins (as it is basically an assembler) imply there is plenty of room for volume and margin growth; (3) REPower's product portfolio is complementary to Suzlon and would be helpful to make inroads into Europe.
- **WTG suppliers in a sweet spot** — The average annual WTG market is set to jump to 26GW/year over the next five years compared with 10GW/year over the previous five. Suzlon as one of the most vertically integrated WTG suppliers is well placed to leverage on this growth story.

Buy/Medium Risk	1M
from Sell/Medium Risk	
Price (14 Jun 07)	Rs1,316.00
Target price	Rs1,700.00
from Rs1,137.00	
Expected share price return	29.2%
Expected dividend yield	0.4%
Expected total return	**29.6%**
Market Cap	Rs378,699M
	US$9,320M

Price Performance (RIC: SUZL.BO, BB: SUEL IN)

See Appendix A-1 for Analyst Certification and important disclosures.

Statistical Abstract

Year to 31 Mar	Net Profit (RsM)	Diluted EPS (Rs)	EPS growth (%)	P/E (x)	P/B (x)	ROE (%)	Yield (%)
2005A	3,654	42.04	-12.8	31.3	14.5	63.9	0.3
2006A	7,562	26.30	-37.4	50.0	13.9	43.1	0.4
2007E	8,648	29.99	14.0	43.9	10.8	27.8	0.4
2008E	14,863	50.24	67.5	26.2	7.9	35.7	0.4
2009E	21,558	72.87	45.0	18.1	5.6	37.2	0.4

Source: Powered by dataCentral

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[1]Citigroup Global Market India Private Limited

Fiscal year end 31-Mar	2005	2006	2007E	2008E	2009E
Valuation Ratios					
P/E adjusted (x)	31.3	50.0	43.9	26.2	18.1
EV/EBITDA adjusted (x)	81.6	42.6	30.9	18.6	13.7
P/BV (x)	14.5	13.9	10.8	7.9	5.6
Dividend yield (%)	0.3	0.4	0.4	0.4	0.4
Per Share Data (Rs)					
EPS adjusted	42.04	26.30	29.99	50.24	72.87
EPS reported	42.03	26.30	29.99	50.24	72.87
BVPS	90.77	94.56	122.02	167.26	235.77
DPS	4.00	5.01	5.00	5.50	5.50
Profit & Loss (RsM)					
Net sales	19,425	38,410	79,857	146,647	212,616
Operating expenses	-15,227	-30,146	-68,617	-125,996	-182,296
EBIT	**4,197**	**8,265**	**11,240**	**20,651**	**30,320**
Net interest expense	-458	-648	-2,523	-5,036	-7,482
Non-operating/exceptionals	234	556	965	1,175	1,392
Pre-tax profit	**3,973**	**8,173**	**9,683**	**16,790**	**24,229**
Tax	-322	-568	-1,035	-1,927	-2,671
Extraord./Min.Int./Pref.div.	2	-43	0	0	0
Reported net income	**3,653**	**7,562**	**8,648**	**14,863**	**21,558**
Adjusted earnings	3,654	7,562	8,648	14,863	21,558
Adjusted EBITDA	4,691	8,980	12,958	23,854	35,210
Growth Rates (%)					
Sales	126.5	97.7	107.9	83.6	45.0
EBIT adjusted	219.4	96.9	36.0	83.7	46.8
EBITDA adjusted	223.4	91.5	44.3	84.1	47.6
EPS adjusted	-12.8	-37.4	14.0	67.5	45.0
Cash Flow (RsM)					
Operating cash flow	**-583**	**-3,288**	**-331**	**-18,949**	**-15,435**
Depreciation/amortization	493	716	1,718	3,203	4,890
Net working capital	-4,662	-10,989	-11,691	-37,015	-41,883
Investing cash flow	**-1,855**	**-4,061**	**-18,457**	**-23,261**	**-15,800**
Capital expenditure	-1,920	-4,063	-18,377	-23,261	-15,800
Acquisitions/disposals	0	0	0	0	0
Financing cash flow	**3,301**	**11,320**	**46,303**	**38,971**	**21,171**
Borrowings	1,574	549	47,113	40,815	23,015
Dividends paid	-396	-1,647	-1,640	-1,844	-1,844
Change in cash	**864**	**3,970**	**27,515**	**-3,239**	**-10,064**
Balance Sheet (RsM)					
Total assets	**20,874**	**49,024**	**125,413**	**200,837**	**265,101**
Cash & cash equivalent	1,545	5,515	15,383	12,144	2,080
Accounts receivable	6,929	16,473	25,704	48,739	73,505
Net fixed assets	3,079	6,425	23,085	43,143	54,052
Total liabilities	**11,767**	**21,585**	**90,136**	**152,541**	**197,091**
Accounts payable	5,206	7,253	0	0	0
Total Debt	3,958	4,507	51,620	92,435	115,450
Shareholders' funds	**9,107**	**27,439**	**35,277**	**48,296**	**68,010**
Profitability/Solvency Ratios (%)					
EBITDA margin adjusted	24.1	23.4	16.2	16.3	16.6
ROE adjusted	63.9	43.1	27.8	35.7	37.2
ROIC adjusted	40.5	36.1	19.2	17.7	17.1
Net debt to equity	26.5	-3.7	102.7	166.2	166.7
Total debt to capital	30.3	14.1	59.4	65.7	62.9

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Contents

Resume Coverage, Upgrading to Buy

We upgrade Suzlon to Buy / Medium Risk (1M) from Sell / Medium Risk (3M) in view of the following:

(1) Margin concerns unnecessarily cloud robust WTG volume growth

Investors are largely ignoring the robust 45% CAGR in WTG volumes over FY07-10E on the back of 6.7% YoY FY07 WTG margins compression. It is pertinent to note that this is a thing of the past and WTG EBITDA margin at the end of FY07 of 16.7% was somewhere close to trough if not the trough. In the worst case scenario WTG margins could go down to 15.5%, but not below. Suzlon and Hansen are implementing a capex plan that will substantially increase capital costs, namely interest and depreciation. However, volume growth and the increased scope of orders leading to better realizations would largely make up for this. With overall effective tax rate at 10-12%, EPS growth will largely track sales growth. We expect Suzlon + Hansen to grow FD EPS at a robust CAGR of 44% over FY07-10E, which would broadly track sales CAGR of 45% over the same period.

(2) Deal structuring neutralizes the bid up in the REPower acquisition price

By the end of CY09E, Suzlon is set to acquire an 87.10% stake in REPower on payment of ~ €1.2bn, which should be funded through debt at an interest cost of 5.25%. The fact that this would be staggered over a three-year period means that the acquisition would turn EPS positive from CY08E.

(3) REPower is a good strategic fit for Suzlon

The acquisition provides Suzlon:

- Immediate access to the mature European markets, likely to be the largest WTG market in terms of absolute volumes over the next five years.
- Acceptance in the European markets as REPower is viewed as a great technology company with a widely accepted product portfolio.
- Complementary product portfolio in terms high and medium capacity WTGs.
- REPower products are variable speed generator machines suited for the European market, whereas Suzlon's products are simpler fixed speed generator machines suited for the Indian and Chinese markets.
- REPower margins are one of the lowest in the industry as it is basically an assembler. With Suzlon's vertical integration there is plenty of room to accelerate top line growth and improve margins.
- REPower also has a commercially proven 5MW turbine for offshore installations and is developing a 6MW prototype, which could be a great long term advantage.

(4) WTG suppliers still in a sweet spot

According to our latest Citi global wind power forecasts, the average annual WTG market is set to jump to 26GW/year over the next five years compared with 10GW/year over the previous five years, driven by: (1) improving economics of wind power, (2) regulatory support for renewable energy, (3) rising fossil fuel prices, (4) the Kyoto Protocol, and (5) long-term planning by governments the world over to increase the use of renewable energy as a percentage of total power requirements.

(5) Suzlon has answers for the spoilers to this growth story

Despite efforts on the part of wind turbine generator (WTG) manufacturers to meet this demand through capacity expansion, a lot of demand might go unmet because of massive component shortages. Suzlon is one of the most vertically integrated WTG suppliers in the world and is one of the best equipped to cash in on this huge WTG opportunity on the back of some prudent steps that its has taken, namely its acquisition of Hansen for gearbox capacity, and adding component and sub – component capacity in the India SEZ.

New Target Price of Rs1,700

- We increase our target price to Rs1,700 from Rs1,137 previously as we roll forward our target P/E multiple to FY09E (from FY08E earlier) and also increase our target P/E multiple to 23x from 20x earlier. This as the uncertainty surrounding the REPower acquisition and worries on the extent of EBITDA margin compression are now a thing of the past.

- Our target P/E multiple of 23x FY09E is well supported by Suzlon + Hansen EPS CAGR of 44% and RoE in the 30–40% range over FY07-10E.

- Our target multiple is line with global WTG majors like Vestas and Gamesa and at a 15% premium to BHEL (Given Suzlon's superior earnings growth and RoEs).

Figure 1. Suzlon + Hansen + REPower EPS

Year End Mar31 (Rs)	FY07E	FY08E	FY09E	FY10E
Suzlon + Hansen EPS	29.99	50.24	72.87	90.13
REPower EPS		-1.11	1.11	6.60
Suzlon+ Hansen + REPower	29.99	49.14	73.99	96.73
Suzlon + Hansen RoE	27.8%	35.7%	37.2%	33.3%

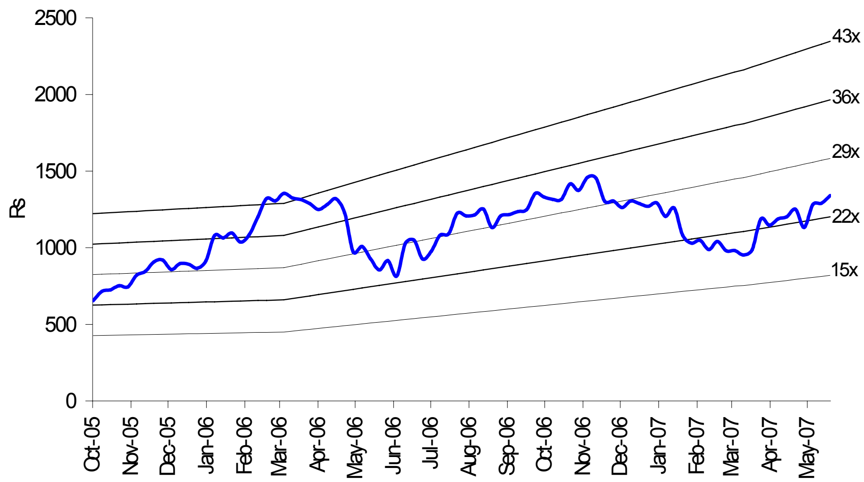
Source: Citigroup Investment Research estimates

Figure 2. Electric Equipment Global Comparable Estimates

Company	Rating	Price	EPS	P/E				ROE			
			07-10	FY07	FY08	FY09	FY10	FY07	FY08	FY09	FY10
ABB	2M	26	29%	41.2	24.2	21.3	19.4	29.2%	33.0%	28.3%	25.5%
Siemens	1M	94	35%	28.0	18.5	13.3	11.3	13.2%	20.4%	21.1%	21.0%
Schneider	2M	105	12%	18.0	16.7	14.6	12.8	15.4%	16.2%	16.3%	16.8%
GE	1L	37	11%	18.8	16.8	14.9	13.5	18.6%	19.9%	21.2%	21.9%
Alstom	2M	113	37%	35.3	20.9	16.9	13.8	22.8%	29.0%	27.1%	25.4%
Average			**25%**	**28.3**	**19.4**	**16.2**	**14.2**	**19.9%**	**23.7%**	**22.8%**	**22.1%**
Vestas	2H	50	67%	81.9	38.7	23.0	17.6	10.0%	17.0%	23.3%	24.0%
Gamesa	2M	27	-5%	20.9	27.5	25.5	24.4	33.3%	20.2%	18.9%	17.2%
Average			**31%**	**51.4**	**33.1**	**24.2**	**21.0**	**21.6%**	**18.6%**	**21.1%**	**20.6%**
ABB - India	1L	4531	42%	56.4	38.9	26.8	19.9	32.9%	35.1%	36.5%	35.0%
BHEL	1L	1312	27%	26.6	19.8	15.7	13.1	29.4%	30.7%	29.6%	27.5%
L&T	1L	1884	31%	39.8	29.5	22.6	17.8	26.8%	29.1%	30.3%	30.3%
L&T Adjusted	1L	1884	31%	30.5	22.7	17.3	13.7	26.8%	29.1%	30.3%	30.3%
Thermax	1L	479	31%	28.6	20.6	15.8	12.8	38.7%	41.4%	39.8%	36.4%
Average			**32%**	**36.4**	**26.3**	**19.6**	**15.4**	**30.9%**	**33.1%**	**33.3%**	**31.9%**

Source: Citigroup Investment Research estimates

Figure 3. Suzlon + Hansen 1-Year Forward Rolling P/E Chart



Source: DataCentral and Citigroup Investment Research estimates

EPS CAGR at a healthy 44% despite downward revision of 10 -12%

We consolidate Hansen in our numbers and cut our Suzlon + Hansen FD EPS by 12% in FY08E and 10% in FY09E to factor in:

- An increase in FY09E WTG MW volumes by 200MW. We expect WTG volumes to grow at a CAGR of 45% over FY07-10E.
- Higher realization/MW for increased scope of orders. We assume EPC realizations of Rs7mn/MW for the domestic orders and Rs3mn/MW for the international business. We also assume an 8% EBITDA margin for EPC.

- We expect WTG EBITDA margins (including EPC) of FY08E - 16.3%, FY09E – 16% and FY10E – 16.7% against FY07 WTG EBITDA margins of 16.7%.
- We expect Hansen to grow sales at a CAGR of 34% over FY07-10E with EBITDA margins of 14 -15%. However PAT growth would be at a CAGR of 19% due to higher capital costs.
- It also pertinent to note that we assume a higher than guided capex of Rs6bn for Suzlon in FY09E as we expect the company to add 1,500MW of WTG capacity in FY10E.

We expect Suzlon + Hansen to grow FD EPS at CAGR of 44% over FY07-10E, which would broadly track sales CAGR of 45% over the same period.

Figure 4. Suzlon + Hansen Earnings Revision Table

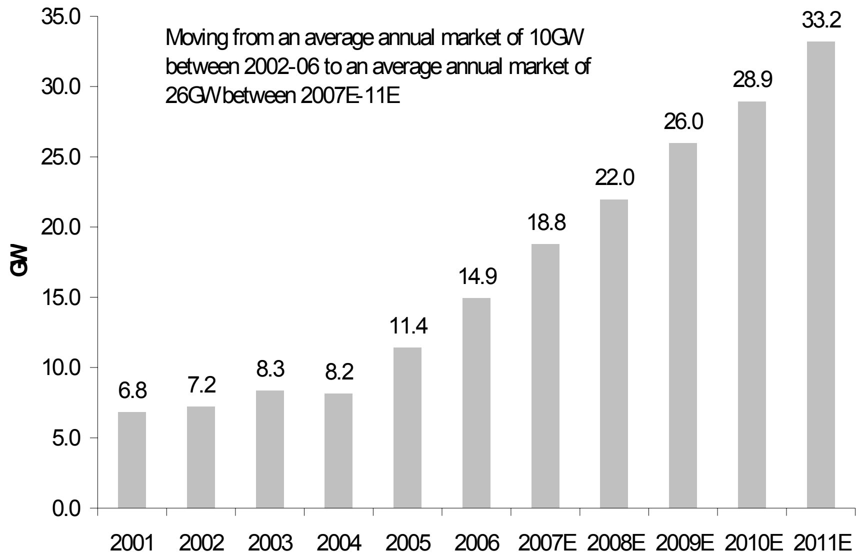
Year End Mar31 (Rsmn)	FY07E	FY08E	FY09E	FY10E	- Remarks
Suzlon WTG MW Sold					
Old	1,600	2,491	3,500		- FY08E ~ almost same as previous
New	1,456	2,500	3,700	4,400	- FY09E should work full blast with capacity of 3700MW
% Chg	-9.0%	0.4%	5.7%	nm	- We expect FY10E year end capacity of 5700MW
Suzlon Sales					
Old	65,999	106,650	151,274		- FY08E sales higher on account of EPC of Rs7mn/MW being included
New	61,300	123,445	187,339	221,933	- FY09E sales higher on account of EPC of Rs7mn/MW being included
% Chg	-7.1%	15.7%	23.8%	nm	- and higher MW sales of 200MW than before
Suzlon + Hansen Sales					
Old	84,699	128,100	176,024		
New	79,857	146,647	212,616	244,051	
% Chg	-5.7%	14.5%	20.8%	nm	
Consolidated EBITDA					
Old	15,673	23,694	32,824		
New	12,958	23,854	35,210	42,279	
% Chg	-17.3%	0.7%	7.3%	nm	
Consolidated EBITDA Margin %					
Old	18.5%	18.5%	18.6%		- WTG Margins assumed FY08E = 16.3% FY09E = 16.0% and FY10E =16.2%
New	16.2%	16.3%	16.6%	17.3%	- 8%, 25% and 35% of Hansen sales to Suzlon. The consolidation effect of this
% Chg	(228)	(223)	(209)	nm	- increases EBITDA margins.
Consolidated Recurring PAT					
Old	10,744	16,403	23,330	0	- Earnings cut 9% in FY08E and 8% in FY09E
New	8,648	14,863	21,558	26,661	
% Chg	-19.5%	-9.4%	-7.6%	nm	
FD EPS Estimates					
Old	37.25	56.87	80.88	0.00	- EPS cut is higher because of 0.2% dilution for ESOPs and 2.4% for FCCBs
New	29.99	50.24	72.87	90.13	- EPS cut by 12% for FY08E and 10% for FY09E
% Chg	-19.5%	-11.6%	-9.9%	nm	- EPS CAGR at a healthy 44% over FY07-10E

Source: Citigroup Investment Research estimates

Component shortage a key constraint to explosive WTG growth

According to our latest Citi Global Wind Power forecasts, the average annual WTG market is set to jump to 26GW/year over the next five years compared with 10GW/year over the previous five years. Despite efforts on the part of wind turbine generator (WTG) manufacturers to meet this demand through capacity expansion a lot demand might go unmet because of massive component shortages. The component-bottlenecks are: gearboxes, large bearings, some of the large forged items, in particular, main shafts and carbon fibre for larger blades.

Figure 5. World Annual Wind Capacity Installations



Source: Citigroup Investment Research estimates

Gearbox capacity expansion backs up our demand estimates

A way to back test Citi Global Wind Power forecasts is to check the estimated gearbox capacity expansion in the next 4 – 5 years. According to a recent study by BTM Consult ApS, gearbox capacity in CY06 was 15GW and the world added 14.9GW of WTG capacity in CY06.

BTM expects gearbox capacity to move up to 21.4G – 32.2GW by CY10E, which broadly ties in with our forecasts of an average annual market of 26GW over the next five years.

What is even more interesting is the fact that it is a rule of thumb that 20% gearbox over capacity is required to prevent supply bottlenecks.

From this discussion we can also conclude that gearbox capacity is largely going to determine WTG growth and the companies controlling gearbox capacity are largely going to shape the WTG markets going forward.

Gearbox is a supply bottleneck for WTGs because of long lead times

The reason why gearbox is a key supply bottleneck for WTGs is clearly visible from the table below which depicts the long lead times for components and sub components.

Figure 6. Delivery Times of Gearbox Components

Components and raw material	Lead time for supply	Manufacturing of gearboxes	Assembly and testing
Bearing	Up to 52 weeks		
Steel parts	Up to 40 weeks		
Forged parts	Up to 30 weeks		
Castings	Up to 20 weeks		
Gears Machining		10 weeks	
Gearbox housing Machining		2-3 weeks	
Testing			2-3 weeks

Source: BTM Consult ApS, Industry and Citigroup Investment Research

Suzlon aggressive on vertical integration

Suzlon is one of the more aggressive WTG manufacturers that sensed this component shortage scenario well in advance and has took proactive steps to overcome these possibilities.

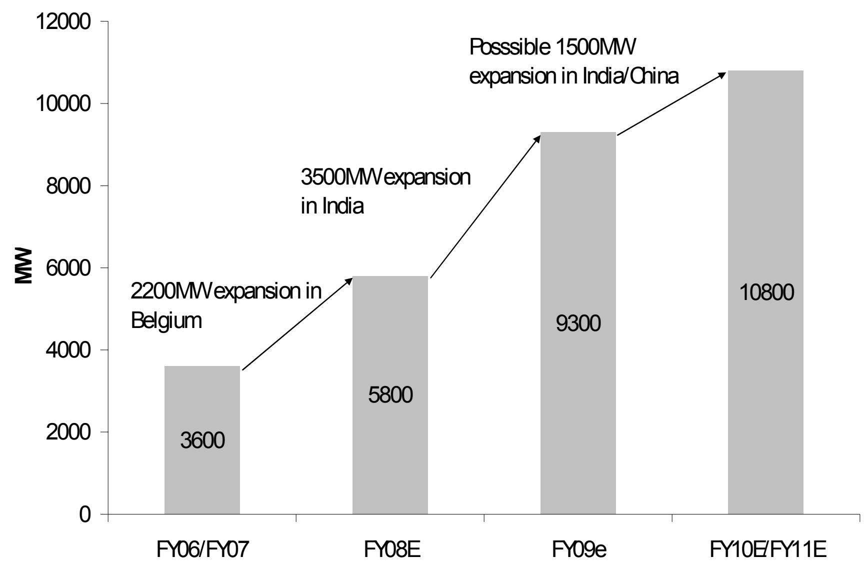
Step 1: Acquisition of Hansen for gearbox capacity

Following Siemens AG (one of SUEL's key competitors) taking control of the market leader in gearboxes, Winergy AG, through its acquisition of Flenders, SUEL acquired a 100% stake in Hansen Transmissions. SUEL paid €465m (implying a trailing EV/EBITDA of 10x) to Allianz Capital Partners and Apax Partners Worldwide.

Step 2: Enhancing gearbox capacity

Suzlon is expanding Hansen’s Belgian capacity to 5,800MW by the end of FY08E and will add 3,500MW of capacity in India by FY09E. There is also a likelihood of adding 1,500MW of capacity either in India or China in FY10E/FY11E.

Figure 7. Hansen Capacity Expansion



Source: Citigroup Investment Research estimates

Step 3: Internal sourcing of gearboxes from Hansen

We expect Suzlon to start sourcing gearboxes from Hansen in FY08E, with 8%, 25% and 35% of Hansen's sales going to Suzlon in FY08E, FY09E and FY10E with the resolution of the technology integration issues.

Step 4: Adding component and sub–component capacity

The final leg of vertical integration is 70,000MT of forging & machining capacity, 120,000MT of foundry & machining capacity and a rotor blade testing facility, which will be up and running by the end of FY08E. This is along with 1500MW integrated turbine manufacturing facility in the Indian SEZ.

Figure 8. Suzlon: Moving Towards Vertical Integration

Product	Existing	Expansion
Turbine	India, China	India
Rotor blades	India, China, US	India
Gearbox	Belgium	Belgium, India, China
Generator	India	India, China
Control system	India, China	India
Tower	India	India
Foundry & Forging	-	India

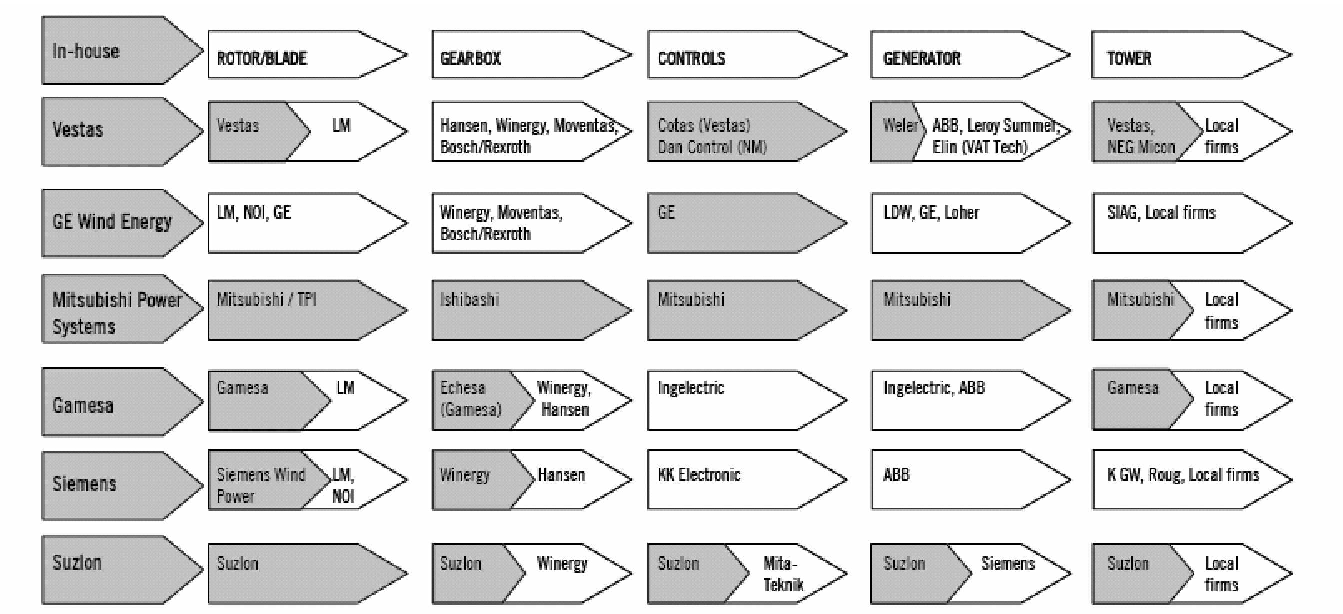
The edge

- Technology integration and leadership
- Cost advantage
- Control over supply chain
- Improved quality control
- Improved service support

Source: Suzlon and Citigroup Investment Research

After the acquisition of Hansen, Suzlon would perhaps rank No. 2 in terms of vertical integration after Mitsubishi Power Systems

Figure 9. Suzlon – High Degree of Vertical Integration



Source: Emerging Energy Research estimates and Citigroup Investment Research

Favorable REPower acquisition transaction structure

- At the close of the bidding war, Suzlon had 33.85% direct stake, 23.15% stake through Martifer and 30.10% stake through Areva in REPower.

- If Areva exercises its put option after 1 year[1], Suzlon will have to fund the acquisition cost of €1.2bn over a three-year period with out flows of €450mn in CY07E/FY08E, €466mn in CY08E/FY09E and €269mn in CY09E/FY10E. This is to be funded with debt with an effective interest rate of 5.25%.

Figure 10. REPower Acquisition Transaction Structure

	Stake	Shares	Price	Euro Million	Remarks
Suzlon	7.84%	699,969	145.0	101	- Shares bought in the open market and rights issue subscribed
Suzlon	26.01%	2,322,219	150.0	348	- Shares tendered in the open offer
Areva	30.10%	2,687,381	173.4	466	- Areva has a put option to sell to Suzlon any time after 1 year. We estimate a price of Euro 173.4/share
Martifer	23.15%	2,066,873	130.0	269	- We expect Suzlon to acquire these shares after 2 years
	87.10%			1,184	

Source: Citigroup Investment Research estimates

Reasons for Suzlon acquiring REPower

- We believe the WTG opportunity will progressively become more of a volume game and the acquisition should help Suzlon accelerate this growth. It provides entry into the mature European markets of Germany, the UK and France. According to Citi global wind forecasts over the next five years Europe, America and Asia offer an average annual opportunity of 11.7GW, 6.6GW and 6.3GW respectively. This implies that Suzlon definitely needs a strong presence in Europe. Further, according to Suzlon, over the next 50 years, estimated global installation totals 1,28GW and 50% of this will be in Europe. The European Union has also passed a regulation that 20% of energy requirements should come from renewable energy, by 2020.

- An alternate approach would have involved Suzlon putting up capacity on its own in Europe, which implies longer lead times for product acceptability. During Suzlon's initial entry in the US markets its turbines were relatively unknown outside India. Suzlon started out targetting smaller projects in the US, a segment that was effectively being ignored by market leaders such as GE, Vestas and Mitsibushi. Post acceptance of its turbines in the US markets, Suzlon has started winning larger orders (a recent large order win was the 630MW order win from the Edison Mission Group). REPower's is viewed as a great technology company with widely accepted product portfolio among European customers.

- Suzlon and REPower have a complementary product portfolio with Suzlon having a presence in low and medium capacity, while REPower has a presence in high and medium capacity. Suzlon had earlier planned to develop high and medium capacity products suited for the European markets from CY09, which it can now shelve.

[1] We have assumed a value creation of €350mn for Areva, in line with their press release and arrived at a price of €173.4/share.

- REPower also has a commercially proven 5MW turbine for offshore installations and is developing a 6MW prototype, which could be a great long-term advantage.

- REPower is a reputable technology company, which designs WTG systems, assembling components for those systems and carrying out operation and maintenance. It has minimal backward integration, which implies it has very low EBITDA and EBIT margins of 3.5% and 2.6% respectively. This implies there is plenty of room to accelerate top-line growth and improve margins.

Figure 11. REPower Business Model

Source: REPower and Citigroup Investment Research

- REPower products are variable speed generator machines suited for the European market, whereas Suzlon's products are simpler fixed speed generator machines suited for the Indian and Chinese markets. In the European market, customers prefer variable speed machines for the more stabilized European grids vis-à-vis the erratic Indian and Chinese grids.

REPower acquisition is EPS accretive from CY08E/FY09E

To work out the REPower math we assume the following:

- Increased 150MW and 250MW volumes in CY08E and CY09E through Suzlon's support and supply chain linkages.

- Operating leverage and Suzlon negotiated component rates for REPower leading to 136bps and 164bps synergy margin improvements.

- 10% higher depreciation on account of higher capex.

- Our synergy benefits assumptions are largely conservative as we would prefer factoring higher benefits once actual benefits become apparent in the coming years.

- Increased volumes bringing in operating leverage should largely drive margin expansion; and sourcing of bearings, supply of rotor blades, tubular towers, gearboxes, castings and forgings either from Suzlon or Suzlon's suppliers.

Overall we expect the REPower acquisition to be EPS dilutive in CY07E by 2.2%, which should turn EPS accretive in CY08E (1.5%) and CY09E (7.3%).

Figure 12. REPower Profit & Loss Statement Post Synergy Benefits

Year End Dec31 (Euro mn)	CY06A	CY07E	CY08E	CY09E	CY06A	CY07E	CY08E	CY09E	- Remarks
MW Sales	492	687	937	1210	492	687	1087	1460	- Higher volumes of CY08E- 150MW and CY09E - 250MW
Turbine Sales	419.1	598.1	834.0	1,088.7	419.1	598.1	967.5	1,313.7	
Others Sales	44.1	56.9	71.0	86.3	44.1	56.9	71.0	86.3	
Gross Sales	**463**	**655**	**905**	**1,175**	**463**	**655**	**1,039**	**1,400**	
EBITDA	**16.5**	**39.4**	**75.9**	**115.0**	**16.5**	**39.4**	**101.3**	**160.0**	- CY08E - 136bps and CY09E- 164bps margin expansion
Margin %	**3.6%**	**6.0%**	**8.4%**	**9.8%**	**3.6%**	**6.0%**	**9.8%**	**11.4%**	
D&A	(4.3)	(7.2)	(9.3)	(11.1)	(4.3)	(7.9)	(10.2)	(12.2)	- 10% higher depreciation on higher capex
EBIT	**12.2**	**32.2**	**66.7**	**103.9**	**12.2**	**31.5**	**91.1**	**147.8**	
Margin %	**2.6%**	**4.9%**	**7.4%**	**8.8%**	**2.6%**	**4.8%**	**8.8%**	**10.6%**	
Interest	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	- Same as before for normal operational debt
PBT	**11.2**	**31.2**	**65.7**	**102.9**	**11.2**	**30.5**	**90.1**	**146.8**	
Tax	(4.1)	(11.5)	(24.3)	(38.1)	(4.1)	(11.3)	(33.3)	(54.3)	- Effective Tax Rate of 37%
PAT	**7.1**	**19.6**	**41.4**	**64.8**	**7.1**	**19.2**	**56.8**	**92.5**	
Debt For Acquisition									
- Suzlon 7.84%						101.5			- Market purchase
- Suzlon 26.01%						348.3			- Open offer purchase
- Areva 30.10%							465.9		- Assume Areva sells out in CY08E
- Martifer 23.15%								268.7	- Assume Martifer sells out in CY09E
Total Acquisition Debt End of Year						**450**	**916**	**1184**	
Interest Rate	5.25%								
Interest Cost						16	38	56	- Interest expense on acquisition debt
Suzlon Stake in Company						33.85%	63.95%	87.10%	- We only assume Suzlon's direct stake in CY07E
Suzlon Attributable PAT						6.5	36.3	80.5	- We add stake bought from Areva in CY08E
Less Interest Cost						(15.6)	(37.9)	(56.3)	- We add stake bought from Martifer in CY09E
Tax Shield on Interest @ 20%						3.1	7.6	11.3	
Suzlon Attributable PAT post interest						**(5.9)**	**6.0**	**35.5**	
PAT In Rsmn @ Rs55/Euro						**(327)**	**330**	**1,953**	
FD Suzlon Shares						296	296	296	
REPower EPS/Share of Suzlon (Rs)						**-1.11**	**1.11**	**6.60**	
Suzlon + Hansen FD EPS (Rs)						**50.24**	**72.87**	**90.13**	**- EPS dilutive in CY07E and EPS accretive from CY08E**
Addition %						**-2.2%**	**1.5%**	**7.3%**	

Source: REPower and Citigroup Investment Research estimates

Detailed Financial Statements

Figure 13. Suzlon + Hansen Consolidated Profit & Loss Statement

Year End Mar31 (Rsmn)	FY02A	FY03A	FY04A	FY05A	FY06A	FY07E	FY08E	FY09E	FY10E	CAGR FY07-10E
Sales	**5,249**	**2,606**	**8,575**	**19,425**	**38,410**	**79,857**	**146,647**	**212,616**	**244,051**	**45.1%**
% growth		**-50.4%**	**229.1%**	**126.5%**	**97.7%**	**107.9%**	**83.6%**	**45.0%**	**14.8%**	
EBITDA	**1,252**	**324**	**1,450**	**4,691**	**8,980**	**12,958**	**23,854**	**35,210**	**42,279**	**48.3%**
EBITDA Margin %	**23.8%**	**12.4%**	**16.9%**	**24.1%**	**23.4%**	**16.2%**	**16.3%**	**16.6%**	**17.3%**	
% growth		**-74.1%**	**347.7%**	**223.4%**	**91.5%**	**44.3%**	**84.1%**	**47.6%**	**20.1%**	
Depreciation	(41)	(100)	(136)	(493)	(716)	(1,718)	(3,203)	(4,890)	(5,509)	
EBIT	**1,210**	**224**	**1,314**	**4,197**	**8,265**	**11,240**	**20,651**	**30,320**	**36,769**	48.4%
EBIT Margin %	**23.1%**	**8.6%**	**15.3%**	**21.6%**	**21.5%**	**14.1%**	**14.1%**	**14.3%**	**15.1%**	
% growth		**-81.5%**	**485.8%**	**219.4%**	**96.9%**	**36.0%**	**83.7%**	**46.8%**	**21.3%**	
Interest	(53)	(89)	(276)	(458)	(648)	(2,523)	(5,036)	(7,482)	(8,265)	
Other Income	84	91	174	234	556	965	1175	1392	1610	
PBT	**1,242**	**227**	**1,212**	**3,974**	**8,173**	**9,683**	**16,790**	**24,229**	**30,114**	**46.0%**
PBT Margin %	**23.7%**	**8.7%**	**14.1%**	**20.5%**	**21.3%**	**12.1%**	**11.4%**	**11.4%**	**12.3%**	
Total Tax	(125)	(31)	(38)	(322)	(568)	(1035)	(1927)	(2671)	(3453)	
Effective Tax Rate	10.1%	13.5%	3.1%	8.1%	7.0%	10.7%	11.5%	11.0%	11.5%	
Share of Minorities	4	4	0	2	(10)	0	0	0	0	
Preference Dividend	0	0	0	0	(33)	0	0	0	0	
Recurring PAT	**1,120**	**200**	**1,174**	**3,654**	**7,562**	**8,648**	**14,863**	**21,558**	**26,661**	**45.5%**
PAT Margin %	**21.3%**	**7.7%**	**13.7%**	**18.8%**	**19.7%**	**10.8%**	**10.1%**	**10.1%**	**10.9%**	
% growth		-82.1%	486.1%	211.1%	106.9%	14.4%	71.9%	45.0%	23.7%	
Tax Adjustments	0	4	8	(1)	0	0	0	0	0	
Exceptional	0	172	271	0	0	0	0	0	0	
Reported PAT	**1,120**	**376**	**1,453**	**3,653**	**7,562**	**8,648**	**14,863**	**21,558**	**26,661**	**45.5%**
Dividend	170	61	243	348	1,439	1,439	1,583	1,583	1,727	
Dividend Tax	17	8	32	49	208	201	261	261	285	
Dividend Tax Rate %	10.2%	13.1%	13.0%	14.0%	14.4%	14.0%	16.5%	16.5%	16.5%	

Source: Suzlon and Citigroup Investment Research estimates

Figure 14. Suzlon + Hansen Consolidated Balance Sheet

Year End Mar31 (Rsmn)	FY02A	FY03A	FY04A	FY05A	FY06A	FY07E	FY08E	FY09E	FY10E
Equity Capital	122	122	243	869	2,875	2,878	2,878	2,878	2,878
Reserves & Surplus	2,260	2,457	3,305	7,024	24,217	31,226	44,246	63,959	88,609
Misc Exp	(1)	(2)	(2)	(4)	(9)	0	0	0	0
ESOPs		0	0	0	104	117	117	117	117
Share Application Money	0	0	0	1	2	0	0	0	0
Management options from subs	0	0	0	0	0	890	890	890	890
Total Networth	**2,380**	**2,576**	**3,546**	**7,889**	**27,189**	**35,111**	**48,130**	**67,844**	**92,494**
Preference Capital	10	10	150	1,150	150	0	0	0	0
Preference Shares Issued by Sub	0	30	30	3	25	25	25	25	25
Minority Interest	0	8	0	64	75	141	141	141	141
Secured Loans	389	931	1,879	3,567	3,899	16,544	21,905	28,820	25,095
Unsecured Loans	0	105	505	391	608	11,151	34,155	50,255	47,255
Hansen Acquisition Loans						23,925	23,925	23,925	23,925
FCCB							12,450	12,450	12,450
Loans	**389**	**1,036**	**2,384**	**3,958**	**4,507**	**51,620**	**92,435**	**115,450**	**108,725**
DTL	0	0	0	0	0	177	177	177	177
NETWORTH LIABILITIES	**2,779**	**3,661**	**6,110**	**13,065**	**31,946**	**87,074**	**140,908**	**183,637**	**201,561**
Gross Block	567	1,108	1,912	3,597	6,293	25,568	48,868	64,668	65,918
Accumulated Depreciation	(92)	(212)	(384)	(808)	(1,536)	(7,020)	(10,223)	(15,114)	(20,623)
Net Block	475	896	1,528	2,789	4,757	18,548	38,645	49,554	45,295
CWIP	25	72	124	289	1,668	4,498	4,498	4,498	4,498
Preoperative Expense						39	39	39	39
Net Fixed Assets	**500**	**968**	**1,652**	**3,079**	**6,425**	**23,085**	**43,143**	**54,052**	**49,793**
Hansen Goodwill						17647	17647	17647	17647
Investments	69	50	143	78	76	156	156	156	156
Inventories	308	1,344	2,213	5,756	13,310	31,363	56,389	85,269	101,012
Sundry Debtors	2,151	1,827	3,443	6,929	16,473	25,704	48,739	73,505	87,389
Cash and Bank Balances	451	560	681	1,545	5,515	15,383	12,144	2,080	3,974
Loans & Advances	740	1,161	1,801	3,247	6,407	12,075	22,619	32,393	36,438
Current Assets	**3,650**	**4,892**	**8,138**	**17,477**	**41,705**	**84,525**	**139,891**	**193,246**	**228,813**
CL		1,768	2,990	5,980	12,977	33,340	53,490	73,920	86,192
Provisions		515	1,007	1,829	4,101	4,999	6,439	7,545	8,656
CL + Provisions	**1,459**	**2,283**	**3,997**	**7,809**	**17,078**	**38,339**	**59,929**	**81,465**	**94,848**
NCA	**2,191**	**2,609**	**4,141**	**9,668**	**24,627**	**46,186**	**79,962**	**111,781**	**133,965**
DTA	20	34	174	241	818	0	0	0	0
Total Assets	**2,779**	**3,661**	**6,110**	**13,065**	**31,946**	**87,074**	**140,908**	**183,637**	**201,561**

Source: Suzlon and Citigroup Investment Research estimates

Figure 15. Suzlon + Hansen Consolidated Cash Flow Statement

Year End Mar31 (Rsmn)	FY02A	FY03A	FY04A	FY05A	FY06A	FY07E	FY08E	FY09E	FY10E
Recurring PAT	1120	200	1174	3654	7562	8648	14863	21558	26661
Change in DTL		(15)	(140)	(67)	(577)	994	0	0	0
Add: D&A		100	136	493	716	1718	3203	4890	5509
Chg in Inventories		(1036)	(869)	(3543)	(7555)	(18053)	(25026)	(28880)	(15743)
Chg in Debtors		324	(1616)	(3486)	(9544)	(9231)	(23035)	(24765)	(13884)
Chg in Loans & Advances		(421)	(640)	(1446)	(3160)	(5668)	(10544)	(9773)	(4045)
Chg in CL & Provisions		824	1714	3812	9269	21261	21590	21536	13383
Change in Working Capital		(309)	(1411)	(4662)	(10989)	(11691)	(37015)	(41883)	(20290)
Cash Flow from Operations		**(24)**	**(241)**	**(582)**	**(3288)**	**(331)**	**(18949)**	**(15435)**	**11880**
Capex		(568)	(820)	(1920)	(4063)	(18377)	(23261)	(15800)	(1250)
Change in Investments/Assets		19	(93)	65	2	(80)	0	0	0
Cash Flow from Investing Activities		**(549)**	**(913)**	**(1855)**	**(4061)**	**(18457)**	**(23261)**	**(15800)**	**(1250)**
Change in Debt		647	1348	1574	549	47113	40815	23015	(6725)
Change in Goodwill		0	0	0	0	(17647)	0	0	0
Change in Minority Interest		8	(8)	64	10	66	0	0	0
Change in Preference Shares		30	140	973	(978)	(150)	0	0	0
Change in Equity		0	122	626	2006	2	0	0	0
Change in Reserves		(111)	(330)	460	11379	911	(0)	0	0
Dividend and Dividend Tax		(69)	(275)	(396)	(1647)	(1640)	(1844)	(1844)	(2011)
Cash Flow from Financing Activities		**506**	**996**	**3301**	**11320**	**28656**	**38971**	**21171**	**(8736)**
Extrordinary Items + Tax Adjustments		176	279	(1)	0	0	0	0	0
Increase/(Decrease) in Cash		**109**	**121**	**864**	**3970**	**9868**	**(3239)**	**(10064)**	**1894**
Opening Cash and Bank Balance		**451**	**560**	**681**	**1545**	**5515**	**15383**	**12144**	**2080**
Closing Cash and Bank Balance	**451**	**560**	**681**	**1545**	**5515**	**15383**	**12144**	**2080**	**3974**

Source: Suzlon and Citigroup Investment Research estimates

Suzlon Energy

Company description

Suzlon Energy Limited is the world's fifth-largest wind turbine generator (WTG) company, and the largest WTG manufacturer in India and Asia. Suzlon is a fully integrated wind power company that provides customers with consultancy, design, manufacturing, operation, and maintenance services. Suzlon has a subsidiary in Germany for technology development, an R&D facility in the Netherlands for rotor blade molding and tooling, and wind turbine and rotor blade manufacturing facilities in India. The company is implementing a capacity expansion program to set up an integrated manufacturing facility in China, a rotor blade manufacturing facility in the US and a forging and foundry plant in India that should increase its capacity from the current 1,500MW to 4,700MW by FY09E. SUEL's product range includes turbines of 350kW, 600kW, 950kW, 1,000kW, 1,250kW, 1,500kW, 2,000kW, and 2,100kW capacity.

Investment thesis

We rate Suzlon shares Buy / Medium Risk (1M) in view of the following:

- We believe investors are largely ignoring the robust 45% CAGR in WTG volumes over FY07-10E on the back 6.7% YoY FY07 WTG margins compression. It is pertinent to note that end FY07 EBITDA margins of 16.7%

were somewhere close to the trough. We expect Suzlon + Hansen to grow FD EPS at robust CAGR of 44% over FY07-10E, which would broadly track sales CAGR of 45% over the same period.

- By the end of CY09E Suzlon would have acquired an 87.10% stake in REPower on the payment of ~ €1.2bn, which should be funded through debt at an interest cost of 5.25%. The fact that this would be staggered over a three-year period means that the acquisition would turn EPS positive from CY08E.

- The REPower acquisition provides Suzlon: (1) immediate access to the mature European markets, the largest WTG market in terms of absolute volumes over the next five years, (2) acceptance in the European markets as REPower is viewed as a great technology company, with a widely accepted product portfolio, (3) a complementary product portfolio in terms high and medium capacity WTGs, (4) REPower margins are one of the lowest in the industry as it is basically an assembler. With Suzlon's vertical integration there is plenty of room to accelerate top-line growth and improve margins, and (5) REPower also has a commercially proven 5MW turbine for offshore installations.

- According to our latest Citi global wind power forecasts, the average annual WTG market is set to jump to 26GW/year over the next five years compared with 10GW/year over the previous five years.

- Suzlon is one of the most vertically integrated WTG suppliers in the world and is one of the best equipped to cash in on this huge WTG opportunity on the back of some prudent steps that it has taken.

Valuation

We increase our target price to Rs1,700 from Rs1,137 previously as we roll forward our target P/E multiple to FY09E (from FY08E earlier) and also increase our target P/E multiple to 23x from 20x earlier as the uncertainties surrounding the REPower acquisition and the extent of EBITDA margin compression are over. Our target P/E multiple of 23x FY09E is line with that of global WTG majors like Vestas and Gamesa and at a 15% premium to BHEL (Given Suzlon's superior earnings growth and RoEs). It appears well supported by Suzlon + Hansen EPS CAGR of 44% and RoEs in the 30–40% range over FY07-10E.

Risks

We rate Suzlon shares Medium Risk based on a number of factors, namely: industry-specific risks, financial risk and management risks. The key downside risks which could prevent the shares from reaching our target price include higher oil prices, which would lower the attraction of renewable energy sources; withdrawal of policy support; foreign currency risk; employee retention; supply chain risks as the company expands internationally; technology obsolescence; interest rate risk; outstanding litigation, and competition.

Appendix A-1

Analyst Certification

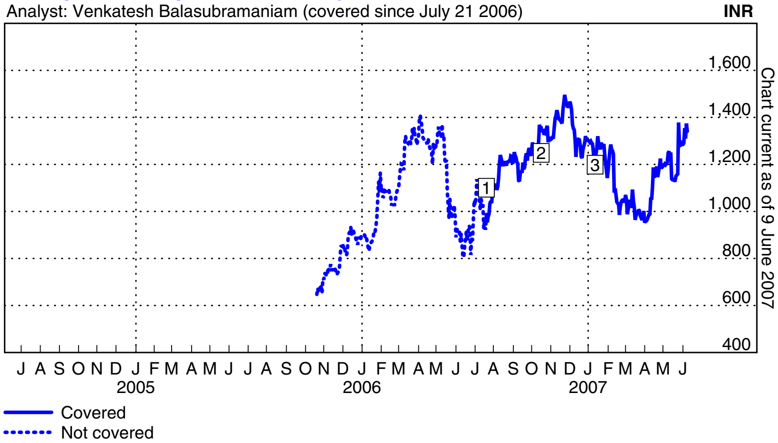
We, Venkatesh Balasubramaniam, Deepal Delivala and Pankaj Sharma, research analysts and the authors of this report, hereby certify that all of the views expressed in this research report accurately reflect our personal views about any and all of the subject issuer(s) or securities. We also certify that no part of our compensation was, is, or will be directly or indirectly related to the specific recommendation(s) or view(s) in this report.

IMPORTANT DISCLOSURES

Suzlon Energy (SUZL.BO)

Ratings and Target Price History - Fundamental Research

Analyst: Venkatesh Balasubramaniam (covered since July 21 2006)



#	Date	Rating	Target Price	Closing Price
1:	20 Jul 06	1M	1,332.00	987.05
2:	17 Oct 06	*2M	*1,516.00	1,355.15
3:	11 Jan 07	*3M	*1,137.00	1,240.65

*Indicates change.

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Citigroup Global Markets is acting as advisor to Bayer AG in the sale of its diagnostics division to Siemens AG

A seat on the Advisory board of General Electric is held by one or more employees of Citigroup Global Markets or its affiliates.
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Engineering -- Europe (32)	28%	66%	6%
% of companies in each rating category that are investment banking clients	33%	48%	50%
India -- Asia Pacific (130)	58%	14%	28%
% of companies in each rating category that are investment banking clients	42%	50%	42%
Multi-industry -- Europe (1)	100%	0%	0%
% of companies in each rating category that are investment banking clients	100%	0%	0%
Multi-industry -- North America (14)	29%	64%	7%
% of companies in each rating category that are investment banking clients	100%	56%	100%

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