

April 23, 2007

Stock Rating  
**Overweight**

Industry View  
**In-Line**

## Tata Power Co

### Initiating Coverage: Executing on Well Structured Strategy

**Initiating coverage with Overweight rating and price target of Rs643:** Tata Power is one of the largest integrated power companies in India's private sector. The company has installed generation capacity of 2,323 MW, it has set up a transmission line together with PowerGrid, and distributes electricity in the Mumbai and Delhi circles. The company plans to add 6,310 MW in generation capacity over the next five to six years. This includes the 4,000 MW Mundra UMPP.

**Possibility of liquidation of group investments would be key trigger for stock:** The company has investments in various Tata group companies, especially telecom companies. We estimate Tata Power will require substantial funds to meet its US\$6-7bn capex program. If the company were to announce that it would liquidate these investments to meet the equity portion of its investments, this would be positive for the stock, in our view. However, if the company decides to raise fresh equity, this could dampen investor sentiment.

**Working on an aggressive strategy:** The company appears to be making an effort to increase its presence in the power sector. The government's thrust to increase private participation in the sector could present increasing opportunities for the company. The UMPP win, acquisition of Indonesian coal mines and a presence in the transmission and distribution segments seem to reflect a well thought-through strategy.

**Initiating coverage with Overweight rating:** We forecast revenue CAGR of 12% and earnings CAGR of 9% over F2007-09. The stock is trading at 17.8x F2008E EPS and 16.5x for F2009E.

#### Key Ratios and Statistics

Reuters: TTPW.BO Bloomberg: TPWR IN

##### India Utilities

Price target	Rs643.00
Shr price, close (Apr 20, 2007)	Rs546.30
Mkt cap, curr (mn)	US\$2,580
52-Week Range	Rs640.00-390.00
Sh out, basic, curr (mn)	197.9

Fiscal Year (Mar)	2006	2007e	2008e	2009e
ModelWare EPS (Rs)*	26.05	28.05	30.74	33.04
Revenue, net (Rs mn)	45,609	51,064	58,755	64,142
ModelWare net inc (Rs mn)	5,156	5,552	6,085	6,540
P/E	22.2	19.5	17.8	16.5
P/BV	2.3	2.0	1.9	1.7
EV/EBITDA	14.0	13.6	12.6	11.3
Div yld (%)	1.5	1.6	1.7	1.7

\* = Please see explanation of Morgan Stanley ModelWare later in this note.  
e = Morgan Stanley Research estimates

Morgan Stanley does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

**For analyst certification and other important disclosures, refer to the Disclosure Section.**

+ = Analysts employed by non-U.S. affiliates are not registered pursuant to NASD/NYSE rules.

Initiation

## Financial Summary

### Income Statement

Rs Mn (Year-end March)	F2005	F2006	F2007E	F2008E	F2009E
<b>Total Revenues</b>	<b>39,270</b>	<b>45,609</b>	<b>51,064</b>	<b>58,755</b>	<b>64,142</b>
Power purchase cost	4,157	5,832	6,994	7,674	8,506
Fuel cost	18,640	23,965	28,509	33,143	34,784
Employee cost	1,554	1,737	2,145	2,468	2,694
Transmission EPC expenses	1,648	2,041	300	300	300
Repairs & Other op. exp.	4,078	3,399	4,090	4,583	5,161
<b>Total Operating Expenses</b>	<b>30,077</b>	<b>36,973</b>	<b>42,038</b>	<b>48,167</b>	<b>51,444</b>
<b>EBITDA</b>	<b>9,193</b>	<b>8,635</b>	<b>9,026</b>	<b>10,588</b>	<b>12,698</b>
Depreciation	3,596	2,783	3,000	3,273	4,101
<b>EBIT</b>	<b>5,597</b>	<b>5,852</b>	<b>6,026</b>	<b>7,315</b>	<b>8,597</b>
Other income	1,325	1,712	2,026	1,744	1,829
Interest and finance charges	1,914	1,653	2,069	2,559	3,434
<b>PBT</b>	<b>5,007</b>	<b>5,911</b>	<b>5,984</b>	<b>6,500</b>	<b>6,993</b>
Taxation	1,701	1,307	1,197	1,300	1,399
Tax rate (%)	34.0%	22.1%	20.0%	20.0%	20.0%
<b>PAT (Standalone)</b>	<b>3,306</b>	<b>4,605</b>	<b>4,787</b>	<b>5,200</b>	<b>5,594</b>
Share in profit of Associates	278	552	765	884	945
<b>Total Profits</b>	<b>3,584</b>	<b>5,156</b>	<b>5,552</b>	<b>6,085</b>	<b>6,540</b>
Extraordinary items	2,207	1,501	48	0	0
<b>PAT after extraordinary items</b>	<b>5,792</b>	<b>6,657</b>	<b>5,600</b>	<b>6,085</b>	<b>6,540</b>
EPS (Rs)	17.96	26.05	28.05	30.74	33.04
DPS (Rs)	7.50	8.50	9.00	9.20	9.50

### Balance Sheet

Rs Mn (Year-end March)	F2005	F2006	F2007E	F2008E	F2009E
<b>Liabilities</b>					
Share Capital	1,979	1,979	1,979	1,979	1,979
Reserves and surplus	43,404	47,668	50,385	53,491	56,923
Share in Profits of Associates	530	1,081	1,847	2,731	3,676
Shareholders funds	45,913	50,729	54,211	58,202	62,579
Secured loans	10,591	9,460	11,460	16,460	21,460
Unsecured loans	18,009	18,090	20,090	25,090	35,090
Other Liabilities	5,867	5,754	5,754	5,754	5,754
<b>Total Liabilities</b>	<b>80,381</b>	<b>84,033</b>	<b>91,515</b>	<b>105,506</b>	<b>124,883</b>
<b>Assets</b>					
Gross Block	54,658	59,247	60,747	70,177	93,877
Accumulated Depreciation	26,574	29,217	32,217	35,490	39,592
Net Block	28,085	30,030	28,530	34,687	54,286
CWIP	4,377	2,118	11,418	14,113	2,500
Investments	19,887	23,555	26,167	30,008	35,154
Deferred tax asset	0	162	162	162	162
Inventories	2,970	4,423	5,447	6,400	7,051
Sundry debtors	6,966	10,582	12,053	13,692	15,322
Cash and Cash Equivalents	25,468	21,553	16,746	16,141	20,686
Deposits	1,346	2,167	2,275	2,389	2,508
Other current assets	4,157	2,654	3,114	3,313	3,512
Sundry creditors	5,341	5,489	6,468	7,384	8,154
Other liabilities and Provisions	7,535	7,722	7,929	8,014	8,145
Net current assets	28,032	28,168	25,238	26,536	32,781
<b>Total Assets</b>	<b>80,381</b>	<b>84,033</b>	<b>91,515</b>	<b>105,506</b>	<b>124,883</b>

### Cash Flow

Rs Mn (Year-end March)	F2005	F2006	F2007E	F2008E	F2009E
<b>PAT (Standalone)</b>	<b>5,514</b>	<b>6,105</b>	<b>4,835</b>	<b>5,200</b>	<b>5,594</b>
Depreciation	3,596	2,783	3,000	3,273	4,101
Interest	1,914	1,653	2,069	2,559	3,434
Share in Profits of Associates	278	552	765	884	945
Changes in Working Capital	2,292	-4,437	-2,028	-1,928	-1,767
<b>Cash flow from operations</b>	<b>13,594</b>	<b>6,656</b>	<b>8,641</b>	<b>9,988</b>	<b>12,307</b>
(Purchase)/sale of fixed assets, net	-1,290	-2,471	-10,800	-12,125	-12,087
(Purchase)/sale of investment, net	315	-3,668	-2,612	-3,840	-5,146
<b>Cash flow from investing activities</b>	<b>-976</b>	<b>-6,139</b>	<b>-13,412</b>	<b>-15,965</b>	<b>-17,233</b>
Proceeds from equity issuance	-2,953	6	0	0	0
Proceeds/(repayment) of loan	11,386	-1,050	4,000	10,000	15,000
Dividend	1,568	1,694	1,919	2,070	2,094
Interest expense	1,914	1,653	2,069	2,559	3,434
Other items	42	-41	-48	0	0
<b>Cash flow from financing activities</b>	<b>4,992</b>	<b>-4,432</b>	<b>-36</b>	<b>5,371</b>	<b>9,472</b>
Change in cash and cash equiv	17,610	-3,915	-4,807	-606	4,546
<b>Opening cash and cash equiv</b>	<b>7,857</b>	<b>25,468</b>	<b>21,553</b>	<b>16,746</b>	<b>16,141</b>
<b>Closing cash and cash equiv</b>	<b>25,468</b>	<b>21,553</b>	<b>16,746</b>	<b>16,141</b>	<b>20,686</b>

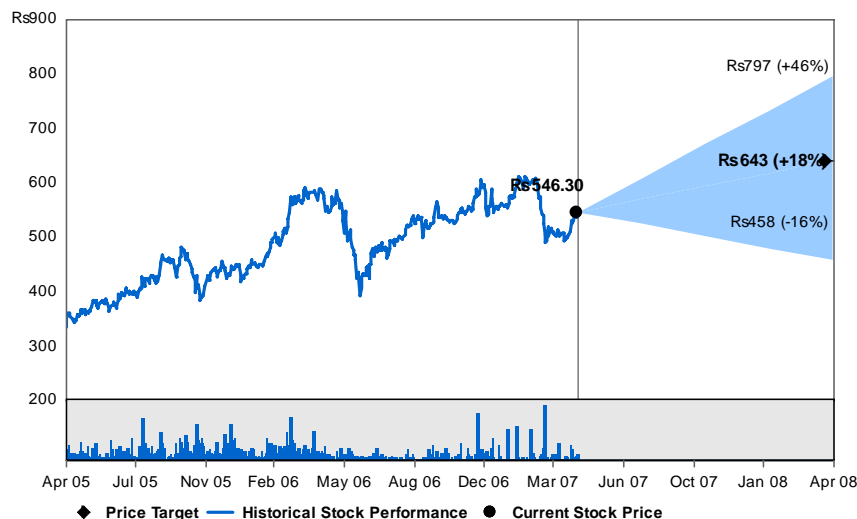
### Ratio Analysis

(Year-end March)	F2005	F2006	F2007E	F2008E	F2009E
<b>Growth (%)</b>					
Revenues	-7%	16%	12%	15%	9%
EBITDA	-22%	-6%	5%	17%	20%
EBIT	-33%	5%	3%	21%	18%
Net Profit	-25%	44%	8%	10%	7%
EPS	-26%	45%	8%	10%	7%
<b>Margins (%)</b>					
EBITDA	23%	19%	18%	18%	20%
EBIT	14%	13%	12%	12%	13%
EBT	13%	13%	12%	11%	11%
Net Profit	9%	11%	11%	10%	10%
<b>Return (%)</b>					
ROE	7.9%	10.7%	10.6%	10.8%	10.8%
ROCE	4.8%	6.3%	6.3%	6.2%	5.7%
ROA	4.1%	5.4%	5.5%	5.4%	5.0%
<b>Gearing</b>					
Debt/Equity	0.62	0.54	0.58	0.71	0.90
Net Debt/Equity	0.07	0.12	0.27	0.44	0.57
<b>Valuations</b>					
EV/EBITDA	12.1	13.2	13.6	12.6	11.3
P/E	30.4	21.0	19.5	17.8	16.5
P/BV	2.4	2.1	2.0	1.9	1.7
Dividend Yield (%)	1.4%	1.6%	1.6%	1.7%	1.7%
<b>Turnover (days)</b>					
Inventory	58	76	76	76	76
Debtors	62	91	91	91	91
Creditors	64	60	60	60	60

E= Morgan Stanley Research Estimates  
Source: Company data, Morgan Stanley Research

## Risk-Reward Snapshot: Tata Power (TTPW.BO, Rs546, OW, PT Rs643)

### Risk-Reward View: Positive



#### Price Target: Rs643

##### Bull Case Rs797

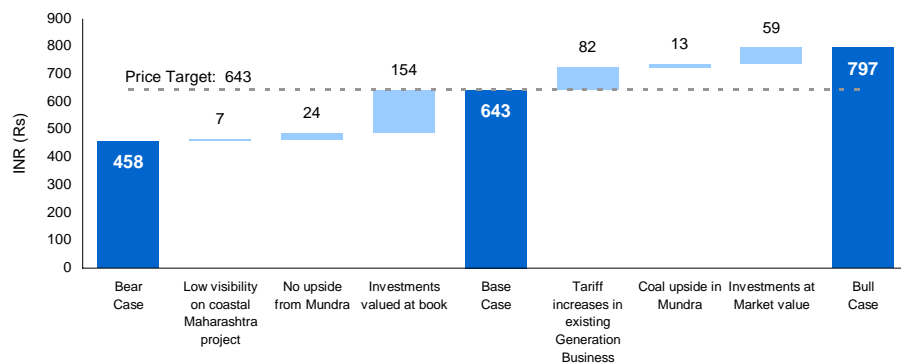
**Better visibility and liquidation of investments:** Better tariff increases allow us to raise our value for the current generation business. We increase the valuation for Mundra and value the investments at current market prices as we believe it represents the realizable value.

##### Base Case Rs643

**Flawless execution; liquidation of investments:** We assume the company's plans to add 6,310 MW remain on course. Market value of investments in group companies is accorded a 20% discount to represent realizable value.

##### Bear Case Rs458

**Continued ambiguity on funding plan:** We value investments at book. We reduce the valuation assumptions for the Mundra UMP and the coastal Maharashtra projects.



### Investment Thesis

- One of the largest private integrated electric utilities in India with experience in generation, transmission and distribution businesses.
- Significant value of investments in group companies gives it the capability to finance large power projects such as the Mundra UMP and the Coastal Maharashtra projects

### Key Value Drivers

- Regulatory regime improving in India
- Thrust provided by government to increase private participation in utility sector

### Potential Catalysts

- Obtaining approvals for other generation projects; especially Maithon and Shahapur
- Liquidation of investments to finance the capex program

### Key Risks

- Continued ambiguity on monetization of investments
- Delays in execution of generating projects

Source: Morgan Stanley Research

## Investment Case

### Summary & Conclusions

We are assuming coverage of Tata Power with an Overweight rating and a price target of Rs643. Our investment thesis is based on the following key points:

1. Tata Power is one of the largest integrated power companies in the private sector. The company has a generation capacity of 2,323 MW, it has built a transmission line together with PowerGrid (PGCIL) and distributes electricity in the Mumbai and Delhi circles. We believe the power sector in India has considerable potential for growth given the fast pace of economic growth and the increasing per capita consumption of electricity. The Ministry of Power projects India's electricity demand to rise 9% a year during F2007-12. To meet the surging demand for power, significant additions will be required to existing capacity along with the installation of an efficient transmission and distribution system. Government efforts to privatize the generation, transmission and distribution segments should increase opportunities for Tata Power.
2. Tata Power has chalked out an aggressive expansion plan. The company plans to add 6,310 MW in generating capacity over the next five to six years. This includes the 4,000 MW Mundra UMPP and the 1,500 MW coastal Maharashtra project. In addition, the company is to invest US\$1.3 billion for the acquisition of a 30% stake in Indonesian coal mines. We believe these developments will be positive as it will catapult the company into the position of significant power generating player. However, substantial funds will be needed to meet its capex requirements. These could be in the range of US\$6-7 billion. Assuming the company applies the normative 70:30 debt to equity ratio (as specified by the Indian regulators) to the total capex requirement, an equity investment of over US\$1.5 billion would be required. We think the company has the option to liquidate its holdings in Tata group companies, which currently have a market value of over US\$1 billion. A decision to monetize its financial assets for deployment in its primary power business would be positive for the stock and boost investor sentiment, in our view.
3. Tata Power stock has underperformed the BSE Sensex by 14% in the past 12 months and has marginally underperformed YTD. We think the slow pace of reforms in the Indian utility sector has dampened investor interest,

and this, coupled with slow capacity additions, may have led to the underperformance. However, we believe the company has a strategy in place and seems to be executing it well. The UMPP (ultra mega power project) win and the fuel security provided by the acquisition of a stake in the Indonesian coal mines seem to be a step in the right direction.

4. We forecast revenue CAGR of 12% and earnings CAGR of 9% over F2007-09 for the existing generation business. The stock is trading at 17.8 times our F2008 EPS estimates and 16.5 times for our F2009 estimates.

Our Rs643 target price is based on a sum-of-parts valuation methodology. The key downside risks to achieving our target price include any delay in the execution of the proposed projects and dilution of equity to meet capex requirements. A substantial increase in capacity addition or the award of any additional transmission or distribution projects would represent upside risks to our target price. Vulnerability to regulations and political intervention are some of the industry risks to which the company has exposure.

#### Company Description

Tata Power is one of India's largest private sector electric utility companies with installed generation capacity of 2,323 MW and distribution business in Mumbai and Delhi. The company has also setup a transmission line along with PowerGrid. The Tata Group is the majority shareholder and holds 32% of its equity.

#### India Utilities

##### Industry View: In-Line

The government's drive to increase generation capacity will benefit Indian utility companies. However, the slow pace of reforms and political intervention continue to dampen sentiment.

##### MSCI Country: India

Asia Strategist's Recommended Weight: 1.6%  
MSCI Asia/Pac All Country Ex Jp Weight: 6.3%

## Investment Positives

### Industry Has Huge Growth Potential

The total electricity generation capacity in India is 128 GW with coal being the primary source of generation (54% of total capacity). The current shortfall (demand vs. supply) of electricity is estimated at 14 GW at peak levels. This has been largely due to lack of adequate generation capacity, inefficiencies in generation plants and high AT&C (aggregate technical and commercial) losses in the distribution system. India's per capita consumption is among the world's lowest when compared to that of other developing countries. We expect it to increase as the economy expands and power consumption rises.

The Ministry of Power projects India's electricity demand to rise 9% a year during F2007-12. To meet this surging demand for power, significant additions will be required to the existing capacity along with the installing of an efficient transmission and distribution system. The government's XIth five-year plan (March 2007-2012) envisages a total capacity addition of 68,869 MW (on top of the 7,191 MW in capacity slippage from the X<sup>th</sup> Plan to the XI<sup>th</sup> Plan period). In addition, government efforts to privatize the transmission and distribution business will open up opportunities for private players such as Tata Power and Reliance Energy.

Exhibit 1

### Key Government Initiatives

<b>11<sup>th</sup> Five-year Plan</b>	<ul style="list-style-type: none"> <li>• Generation: Capacity addition of 69 GW</li> <li>• Transmission: Capacity to increase by 20 GW to reach about 37 GW</li> </ul>
<b>UMPP</b>	<ul style="list-style-type: none"> <li>• 9 locations identified for UMPPs, of which 2 are already awarded (Sasan and Mundra)</li> </ul>
<b>Captive Coal</b>	<ul style="list-style-type: none"> <li>• 15 captive coal blocks up for allotment to private players</li> </ul>
<b>Transmission</b>	<ul style="list-style-type: none"> <li>• 15 transmission projects identified for competitive bidding/private sector participation</li> </ul>

Source: Morgan Stanley Research

### Present in All Industry Segments

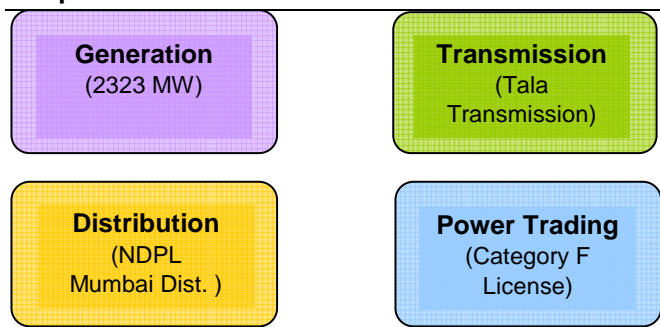
Tata Power has interests in all three segments of the power sector – generation, transmission and distribution. It currently has an installed capacity of 2,323 MW and plans to add 6,310 MW over the next five to six years, which primarily includes the 4,000 MW Mundra Ultra Mega Power Project (UMPP) and the 1,500 MW coastal Maharashtra project. In the transmission business, Tata Power, together with PGCIL, has built the 1,200 km Tala transmission line for evacuating power from Bhutan and supplying it to the northern parts of India. In the

distribution business, Tata Power has a 49% stake in North Delhi Power Limited (NDPL), which distributes electricity in Delhi. It is also a bulk electricity supplier in the city of Mumbai.

Tata Power is one of the key utility companies in India and has the expertise to participate in any segment of the sector. The company should, therefore, be a key beneficiary of the government's increasing focus on utilities and its effort to raise electricity supply in the country by F2012.

Exhibit 2

### Snapshot of Various Business Interests



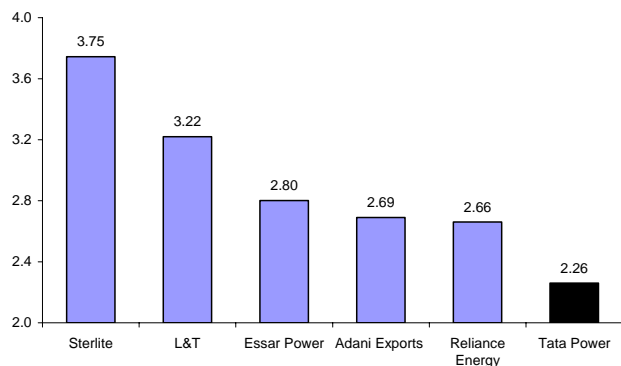
Source: Company data, Morgan Stanley Research

### UMPP to Increase Capacity

In December 2006, Tata Power won the Mundra UMPP, a 4,000 MW coal generation plant to be set up on the coastal region of Gujarat. Tata Power emerged as the lowest bidder for the project with a 25-year levelized tariff of Rs2.26/KWh. As Tata Power's current generation capacity is 2,323 MW, the addition of the UMPP will catapult its total generation capacity into a higher league. Total capital expenditure for this UMPP will be in the range of Rs160-180 billion and funding will possibly be in the ratio of 80:20 (debt:equity). While the bid of Rs2.26/unit for the Mundra UMPP seems aggressive, we believe the company has a well structured strategy. The company recently bought a 30% stake in two coal mines of Bumi Resources, an Indonesian coal trading company, which assures it a long-term (10 to 12 years) supply of coal at discounted prices. The company plans to bid for other UMPP projects that may be put forward for the bidding process.

Exhibit 3

**Mundra UMPP Bids: Tata Power at Rs2.26/KWh**



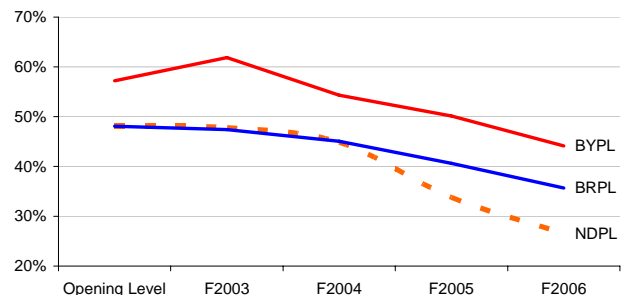
Source: Company data, Morgan Stanley Research

**Positive Experience in Delhi Distribution Business**

Tata Power and BSES (now Reliance Energy) were the two companies that were awarded the three distribution circles in Delhi in July 2002. NDPL was Tata Power's joint-venture company while BRPL and BYPL were Reliance Energy's joint-venture companies operating in Delhi. NDPL's performance in Delhi has been superior to that of BRPL and BYPL and the reduction in AT&C (aggregate technical and commercial) losses has been far greater than the minimum levels stipulated by the Delhi government (Exhibit 4). At the end of four years, NDPL had cut AT&C losses by more than 21% versus the 15% that the government specified. We believe that NDPL has managed to reduce T&D (technical and distribution) and commercial losses irrespective of inadequate transition finance from the Delhi government and tariff rollbacks.

Exhibit 4

**Movement in AT&C Losses since Privatization**



Source: GNCTD, Morgan Stanley Research

Exhibit 5

**Financial Performance of NDPL**

	F2003	F2004	F2005	F2006
Sales	4,300	6,285	7,854	8,634
Operating Profit	402	406	702	1,123
Margin %	9%	6%	9%	13%
PAT	109	143	278	552
Margin %	3%	2%	4%	6%

Source: Company data, Morgan Stanley Research

**Group Company Investments to Help Fund Expansion Plans**

Tata Power has substantial investments in Tata group companies such as Tata Teleservices, VSNL, Panatone Investment Limited and Tata Sons. The total value of such group investments in the balance sheet as at March 31, 2006, was Rs16 billion (Exhibit 6). However, we estimate the market value of these shares could be approximately Rs45 billion. We think it is highly probable that the company may decide to liquidate its investments in telecom companies to meet future capex requirements. While the company has not stated this publicly, it knows this option is available.

Exhibit 6

**Details of Investments in Group Companies**

Name	No. of Shares (Mn)	Book Value (Rs Mn)
Tata Teleservices Ltd	684	7,260
Tata Teleservices Maharashtra Ltd	162	1,154
VSNL	2.6	1,218
Panatone Inv Ltd	500	5,000
Tata Sons	0.006	1,367
Titan	0.3	8.5
Rallis	5.0	50.0
<b>Total Book Value</b>		<b>16,058</b>

Source: Company data, Morgan Stanley Research

**Reduced Dependence on Oil and Gas**

Tata Power's dependence on oil and gas will decline as all its new capacity is to use coal-based plants. Its capacity currently includes 1,350 MW based on oil/gas and 428 MW on coal plants. The cost of generation for oil and gas-based plants is higher than that of coal due to high oil prices and a shortfall in gas supply. We do not expect any change in this situation, indicating that using coal for power generation is more cost efficient.

## Investment Concerns

### Changes in Regulations Could Affect Earnings

The Maharashtra Electricity Regulatory Commission (MERC) regulates Tata Power's operations in Maharashtra while the Delhi Electricity Regulatory Commission (DERC) regulates its distribution activities in Delhi. These regulations determine the returns the company can make on its generation, transmission and distribution businesses and, therefore, any change in these regulations could have a significant impact on earnings. While we have no reason to believe that these regulatory bodies are considering any drastic changes in regulations, we remain cautious with respect to the regulatory environment.

Exhibit 7

#### Key MERC and DERC Regulations

##### MERC

- 14% post tax ROE on regulatory equity at the beginning of the year for generation business
- 14% post tax ROE on regulatory equity at the beginning of the year and on 50% of additions during the year for transmission business
- 16% post tax ROE on regulatory equity at the beginning of the year and on 50% of additions during the year for distribution business
- Incentive at Rs0.25/unit if PLF > 80%

##### DERC

- 16% post tax ROE on regulatory equity at the beginning of the year and on 50% of additions during the year for distribution business
- Benefits of AT&C loss reduction beyond the Government's stipulated targets would be shared equally by the Distribution Company and the consumers

Source: MERC, DERC, Morgan Stanley Research

### Significant Political Intervention Could Impede Performance

The power sector in India has been hampered by significant political intervention, which has resulted in inefficiencies, high AT&C losses, resistance to tariff increases and slow development of the privatization process. First, in terms of generation, the supply of gas continues to be unreliable and, as a result, the PLF (plant load factor) for Tata Power's gas-based plants has been low. The company does not depend on Coal India for coal supplies since it imports coal with low ash content for its coal-based generation units. Second, with respect to transmission, PowerGrid is the key transmission company and any delays on their part could delay future transmission projects. PGCIL is Tata Power's partner in the Tala transmission business. Third, for distribution, there is evidence of political intervention in the Delhi distribution business in that the Government of Delhi has rolled back tariff increases.

We believe that the power sector in India will remain vulnerable because of regulatory uncertainty and government intervention. Any negative decision or retrograde steps taken by the government could affect financial performance and dampen investor sentiment.

Exhibit 8

#### Previous Retrograde Steps taken by Indian Govt

Rolling Back of Tariff Increase	In Kerala, in 2002 the State Government rolled back its proposed tariff hike of 75%
Karnataka	Privatization process was abandoned due to a change in State Government
Orissa	Exit of Reliance Energy, distribution now handled by the Appellate
Cross Subsidization	Certain states offer free/subsidized power to farmers/certain segments of society. This is in turn recovered from industrial and commercial consumers
Reliance: Parbati Koldam project	Disagreement with PGCIL on buy-out liability project

Source: Morgan Stanley Research

### Pending Issue on Standby Charges with Reliance Energy for Mumbai

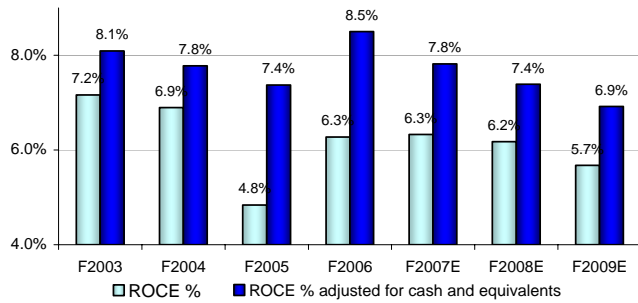
The standby charges issue with Reliance Energy appears to have been resolved in favor of Reliance Energy. Tata Power has refunded Rs2.1 billion to Reliance Energy and has issued bank guarantees for the balance of Rs2.1 billion. We estimate this will be marginally detrimental for the company's cash flow.

### Reinvestment Risk for Financial Assets

Tata Power had cash and cash equivalents of Rs21.5 billion at the end of F2006, which represented about 25% of its total net assets. In addition, we estimate the company will generate healthy operating cash flows going forward. In an effort to improve ROE (10.7% in F2006), the company will have to find avenues for investing these funds to earn a post-tax ROE of at least 14%; otherwise, it would need to increase the dividend payout. If these funds remain as financial assets, the return generated would dampen ROE.

Exhibit 9

**Tata Power: ROCE**



Source: Company data, Morgan Stanley Research  
 E = Morgan Stanley Research estimates

**Inherent Risks in the Sector**

Some of the risks related to the sector are as follows:

- **Highly regulated:** the Indian power sector is highly regulated, which reduces transparency and increases the risk profile of companies operating in the industry.
- **Political intervention:** since both the central and state governments have control over the sector, political intervention is considerable. This is detrimental to the sector's performance.



## Valuation

### Intrinsic Value and Price Target Methodology

Tata Power has a presence in various business segments, and we therefore use a sum-of-parts method to calculate the fair value of the stock. When valuing the company, we considered the following:

- Existing generation business (including the Mumbai License Area)
- Delhi distribution business
- Mundra UMPP (4,000 MW coal plant, which will be commissioned in F2014 and is assumed to be implemented through a SPV, special-purpose vehicle)
- Coastal Maharashtra project – while the company has not made a decision on the size of the project, we assume it to be 1,500 MW. This is to be commissioned in F2013 (assumed to be implemented through a SPV).
- Powerlinks transmission
- Market value of investments in group companies

We arrive at a target price of Rs643. The components of this valuation are as shown in Exhibit 10:

Exhibit 10

#### Base Case: Sum-of-Parts Valuation

	Exhibit #	Rs/share
Existing generation business (incl. Mumbai)	12	311
Delhi distribution business	13	28
Powerlinks Transmission	17	13
Coastal Maharashtra project	16	32
Mundra UMPP (adjusted for Bumi acquisition)	14 & 15	24
Investments in group companies	18	235
<b>Price Target</b>		<b>643</b>

Source: Morgan Stanley Research

We have not factored the following projects into our valuation because of uncertainties surrounding their implementation:

- 4,000 MW gas plant in Shahapur (Maharashtra) – held up due to pending land issue with Reliance Energy.
- 1,000 MW Maithon project in partnership with Damodar Valley Corporation – only 50% fuel link tied up.

### Current generation business (including Mumbai License Area):

We use a DCF model to value the current generation business, which consists largely of the Mumbai License Area. Tata Power supplies bulk electricity to BEST, Reliance Energy and other bulk consumers such as the Railways in the Mumbai License Area. We expect business in this area to continue to grow because of expansion in the consumer base and the increase in consumption. The company earns regulated returns on its generation, transmission and distribution businesses, which we expect to continue. Tata Power currently has 1,798 MW capacity for the Mumbai area and it plans to increase this to 2,248 MW by F2010.

Our assumptions for WACC and the DCF model are provided in Exhibits 11 and 12.

Exhibit 11

#### Key Assumptions

Equity portion	63%
Debt portion	37%
Beta	0.93
Risk free rate	8.00%
Market premium	5.00%
<b>Cost of equity</b>	<b>12.7%</b>
Debt	7.0%
Tax rate	20.00%
<b>Cost of debt</b>	<b>5.60%</b>
<b>WACC</b>	<b>10.1%</b>
<b>Terminal Growth Rate</b>	<b>2.0%</b>

Source: Bloomberg, Morgan Stanley Research

Exhibit 12

**DCF: Mumbai License Area**

(Rs Mn)	F2006	F2007E	F2008E	F2009E	F2010E	F2011E	F2012E
Revenue	45,609	51,064	58,755	64,142	72,147	73,017	74,044
YoY growth	16%	12%	15%	9%	12%	1%	1%
EBIT	5,852	6,026	7,315	8,597	10,017	9,351	8,709
Margin (%)	12.8%	11.8%	12.4%	13.4%	13.9%	12.8%	11.8%
Effective tax rate	22.1%	20.0%	20.0%	20.0%	20.0%	25.0%	25.0%
EBIT (1-Tax)	4,558	4,821	5,852	6,878	8,013	7,014	6,531
Depreciation	2,783	3,000	3,273	4,101	4,731	4,831	4,956
Capex	(2,470)	(10,800)	(12,125)	(12,087)	(3,000)	(2,500)	(2,500)
Change in Working Capital	(4,437)	(2,028)	(1,928)	(1,767)	(1,812)	(1,263)	(30)
<b>Net investment in Capital</b>	<b>(4,124)</b>	<b>(9,828)</b>	<b>(10,780)</b>	<b>(9,753)</b>	<b>(80)</b>	<b>1,069</b>	<b>2,427</b>
<b>Free cash flow</b>	<b>435</b>	<b>(5,007)</b>	<b>(4,928)</b>	<b>(2,876)</b>	<b>7,933</b>	<b>8,082</b>	<b>8,958</b>
Compounding period			0	1	2	3	4
Discounting factor			1.00	0.91	0.83	0.75	0.68
<b>PV of cash flows</b>			<b>-4928</b>	<b>-2613</b>	<b>6549</b>	<b>6063</b>	<b>6106</b>

Forecast horizon	11,177
PV of Terminal Value	75,791
<b>Firm value</b>	<b>86,968</b>
Debt	41,550
Cash	16,141
<b>Equity Value</b>	<b>61,558</b>
# shares outstanding	197.9
<b>Equity value/share</b>	<b>311</b>

Source: Company data, Morgan Stanley Research  
E= Morgan Stanley Research Estimates

The **Delhi distribution business** includes NDPL, in which Tata Power holds 49%. NDPL earns a 16% ROE on the regulatory capital base and also an incentive if it reduces AT&C losses below the Delhi government's stipulated level. While the DERC (Delhi Electricity Regulatory Commission) is contemplating a reduction in ROE from 16% to 14%, we believe this may not be implemented since the distribution companies will disagree to this move. However, we believe NDPL may not be able to earn incentives going forward since a reduction in AT&C losses below the government's stipulated levels may not be easily achievable. We use a cost of equity of 14% (risk free rate of 8% and expected risk premium of 6%) and a terminal growth rate of 4%. We value NDPL at Rs58/share and Tata Power's 49% stake in NDPL accordingly is Rs28/share, based on our RI model.

Exhibit 13

**RI Model: NDPL**

(Rs mn)	F2007E	F2008E	F2009E	F2010E	F2011E	F2012E
NDPL Capital Base	6,395	7,035	7,738	8,512	9,193	9,928
Net income	1,379	1,403	1,464	1,531	1,471	1,589
ROE		22%	21%	20%	17%	17%
RI		594	574	552	394	426
Discounting Factor		1.00	0.88	0.77	0.67	0.59
			503	425	266	252
Beginning capital base		7,035				
Forecast horizon		1,446				
Terminal Value		3,030				
<b>Equity Value</b>		<b>11,511</b>				
Value per share		58				
<b>Value for TPWR</b>		<b>28</b>				

Source: DERC, Morgan Stanley Research

**Mundra UMPP:** Tata Power was the lowest bidder for the Mundra UMPP with a 25-year levelized tariff of Rs2.26/KWh. We calculate the company will take about 54-60 months to construct the project and, hence, have assumed the commissioning date to be in F2014. The project will have five units of 800 MW each with the boiler supplied by Doosan Heavy Industries. The project will use imported coal, for which Tata Power recently acquired a 30% stake in two coal mines of PT Bumi Resources, an Indonesian coal trading company, which has provided a long-term arrangement (10 to 12 years) for the supply of coal at discounted prices. While the company has not disclosed operating information on the Mundra UMPP, we have made various assumptions (detailed in Appendix 1) to determine the profitability of the Mundra UMPP. We use the RI model to arrive at a value of Rs133/share (Exhibit 14).

Exhibit 14

**RI Model: Mundra UMPP**

Beginning Book Value	36,000
Forecast horizon	(11,348)
Terminal Value	1,696
<b>Equity Value</b>	<b>26,348</b>
# of shares	197.9
<b>Value per share</b>	<b>133</b>

Source: Morgan Stanley Research

Furthermore, we believe the acquisition of the Bumi mines is critical for the execution of the Mundra UMPP and, hence, we have adjusted the premium that Tata Power paid for acquiring the 30% stake in the mines with the value of the Mundra UMPP to arrive at the net valuation of the Mundra UMPP.

Exhibit 15

**PT Bumi: Premium Paid by Tata Power for Ensuring Fuel Supply**

Shares outstanding of Bumi (mn)	19,404
Share price of Bumi on April 3, 2007 (IDR)	1,330
Total market cap (US\$ mn)	2,659
Tata Power's stake	30%
Value of TPWR's holding	798
Acquisition price for TPWR	1,300
Premium paid (US\$ mn)	502
<b>Premium paid per share (Rs/share)</b>	<b>109</b>

Source: Company data, Morgan Stanley Research

Accordingly, we value the Mundra UMPP (net of the premium paid for the Bumi acquisition) at Rs24/share.

We have not considered any potential upside from the sale of excess electricity generated if a PLF of greater than 80% is achieved. In addition, we assume the UMPP is operated through an SPV and so have not consolidated its operations in Tata Power's financial statements.

**Coastal Maharashtra:** Tata Power is considering the setting up of a 1,500-2,000 MW coal-fired plant in coastal Maharashtra. While the company is confident of commissioning this plant, it has not disclosed any related information. We assume the plant to be 1,500 MW and commissioned in F2013. We use an RI model to value the project at Rs32/share. In addition, we assume the project is operated through an SPV and so we have not consolidated its operations in Tata Power's financial statements

Exhibit 16

**Coastal Maharashtra**

Size (MW)	1,500
Cost of project (Rs mn)	60,000
Equity value of project (Rs mn)	18,000
Assumed ROE	14%
COE	12.7%
Terminal growth rate	2%
Intrinsic value	20,282
Implied P/B	1.13
Value per share (Rs/share)	102
Years to commissioning (1 year forward)	4
Present value per share (Rs/share)	64
Probability	50%
<b>Value for TPWR (Rs/share)</b>	<b>32</b>

Source: Morgan Stanley Research

**Powerlinks Transmission:** Tata Power, together with PGCIL, has set up the 1,200 km Tala transmission line for extracting power from Bhutan and supplying it to the northern parts of India. The company is to earn a post-tax ROE of 14% on the project, Powerlinks Transmission, and its total investment is Rs2.14 billion. We value the investment in Powerlinks Transmission at Rs13/share based on our RI model.

Exhibit 17

**RI Model: Powerlinks Transmission**

<b>Rs Mn</b>	
TPWR's Investment in Powerlinks	2142
TPWR's holding	51%
Total equity component of the project	4200
ROE	14%
COE	13.0%
Terminal growth rate	0%
Intrinsic value	4523
Implied P/B	1.1
Value for TPWR	12
<b>12-month forward (Rs/share)</b>	<b>13</b>

Source: Company data, Morgan Stanley Research

**Investments in companies:** Tata Power has investments in several group companies (such as VSNL, Tata Teleservices and TCS) as well as other external companies (such as PTC and Nelco). These investments carried a value of Rs16 billion

in the balance sheet as at March 31, 2006. However, we believe the estimated value of the investments could be Rs47 billion. In Exhibit 18 we present a list of the investments and their estimated values. We accord a 20% discount to our estimated values to arrive at a realizable value, which translates into Rs235/share for Tata Power. We believe the discount adjusts for the euphoria surrounding the Indian market (which has gone up by 21% since March 2006); hence, the discount represents the net realizable value of the investments.

We believe the company has the option to monetize these assets to meet its business requirements. While the company has not stated anything publicly, it knows that this option is available to meet the equity portion of its capex requirements. It will be adding 6,310 MW of additional generation capacity over the next five to six years, which will involve an investment of about US\$6 to 7 billion. Tata Power may need about US\$1.5 billion as equity investment in these projects. An alternative option to raising equity would be for the company to liquidate these investments to meet its capex requirements. A synopsis of indicative capex requirements and the funding mix is presented in Exhibit 19.

Exhibit 18

**Valuation of Investments**

	Shares Held (mn)	Listed/Unlisted	Stock Price/Est Value (Rs/share)	Discount Factor	Fair Value (Rs/share)	Value for TTPW (Rs/share)	Basis for estimated value
Holding in Tata group companies							
<u>Telecom Investments</u>							
- Tata Teleservices Ltd	684.0	Unlisted	18.9	20%	15.2	52	Applied valuation of recent stake sale
- Tata Teleservices Maharashtra Ltd	161.6	Listed	21.1	20%	16.8	14	Current market price
- VSNL	2.6	Listed	401.7	20%	321.3	4	Current market price
- Panatone Inv Ltd (holding in VSNL)	500.0	Unlisted	36.6	20%	29.3	74	16% holding in VSNL through Panatone Inv
Sub total						144	
<u>Non Telecom Investments</u>							
- TCS (1.6% holding via Tata Sons)	15.7	Listed	1,215.0	20%	972.0	77	1.6% holding in TCS through Tata Sons
- Titan	0.3	Listed	884.1	20%	707.3	1	Current market price
- Rallis	5.0	Listed	250.0	20%	200.0	5	Current market price
Sub total						83	
Other investments							
- PTC	15.7	Listed	59.0	20%	47.2	4	Current market price
- Nelco	11.1	Listed	83.0	20%	66.4	4	Current market price
Sub total						7	
<b>Grand total</b>						<b>235</b>	

Note: Current Market Prices as at April 4, 2007  
Source: Morgan Stanley Research

Exhibit 19

**Tata Power: Capex Requirements**

(Rs Mn)	Capacity(MW)	F2006	F2007E	F2008E	F2009E	F2010E	F2011E	F2012E
<b>Operating cash flow</b>		<b>6,656</b>	<b>8,641</b>	<b>9,988</b>	<b>12,307</b>	<b>14,480</b>	<b>14,468</b>	<b>15,604</b>
<u>Capex</u>								
Trombay Unit 8	250				9,000			
Haldia 120 MW	120				4,200			
Jamshedpur	120				4,800			
Jojobera	120				4,200			
Mumbai DG Sets	100			2,000				
Wind	100			4,300				
Captive coal berth (Trombay)				1,630				
Maintenance capex			1,500	1,500	1,500	1,500	1,500	1,500
<b>Total capex</b>			<b>1500</b>	<b>9430</b>	<b>23700</b>	<b>1500</b>	<b>1500</b>	<b>1500</b>
<u>Investments through SPV</u>								
Mundra	4,000				18,000	36,000	54,000	54,000
Bumi				55,900				
Coastal Maharashtra	1,500				6,000	18,000	18,000	18,000
<b>Total investments</b>	<b>6310</b>		<b>-</b>	<b>55,900</b>	<b>24,000</b>	<b>54,000</b>	<b>72,000</b>	<b>72,000</b>
Net change			7,141	-55,342	-35,393	-41,020	-59,032	-57,896
Opening Cash			21,553	28,694	-26,648	-62,041	-103,061	-162,093
Closing Cash		21,553	28,694	-26,648	-62,041	-103,061	-162,093	-219,989

Total Outlay (Rs Mn)	241,542
<u>Total Outlay (US\$Mn)</u>	5,617
<u>Assumed Funding Mix</u>	
Equity (30%) US\$Mn	1,685
Debt (70%) US\$Mn	3,932

Note: Conversion rate : US\$1= Rs 43  
Source: Company data, Morgan Stanley Research  
E= Morgan Stanley Research Estimates

**Risks to Our Target Price**

We use a sum-of-parts methodology to determine the target price of Tata Power. The key upside risks to our target price are:

- Significant increase in generation capacity, which could include the Shahapur project
- Additional projects in the transmission or distribution segment

The key downside risks to our target price are:

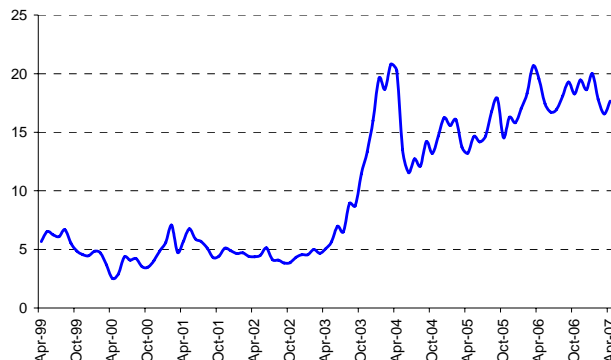
- Significant changes in regulations that could impair the business in Mumbai and Delhi
- Continued ambiguity with respect to the company's intentions concerning the monetization of investments in group companies
- Significant political intervention

**Relative Valuations**

Tata Power is trading at 17.8 times our F2008 earnings estimates and 16.5 times for F2009E. On a 12-month forward basis, the stock is trading at close to a 11% premium to the BSE Sensex. We think the current expansion plan and the possibility of participating in other opportunities within the sector will be positive for the stock. In the past three years, the stock has traded at an average premium of more than 27% to the Sensex, which could have been due to its positive experience in the Delhi distribution business. We believe the premium can expand from current levels given the company's aggressive capacity expansion plan and its capability of participating in further privatized transmission and distribution projects. On our target price of Rs643, the stock would trade at nearly 21x forward earnings and a 30% premium to the Sensex, which we believe are reasonable valuations.

Exhibit 20

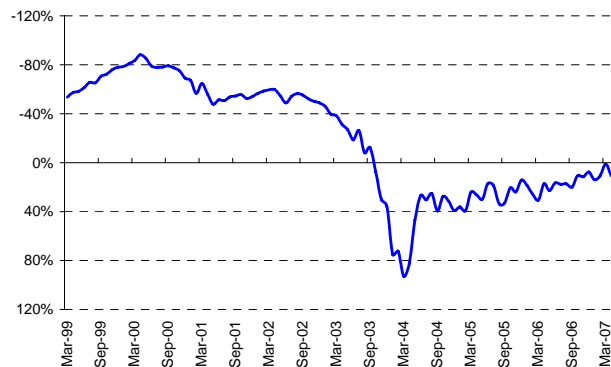
**12-month Forward P/E**



Source: Company data, Morgan Stanley Research

Exhibit 21

**Forward P/E: Discount to Sensex**



Source: Company data, Morgan Stanley Research

### Bull-case Scenario

In this scenario, we assume the valuation of the Delhi distribution business (NDPL), coastal Maharashtra and the company's holding in Powerlinks Transmission to be similar to that in our base-case scenario. Changes in other areas are as follows:

- We increase the growth rate for the existing generation business (due to stronger tariffs) and value this business at Rs393/share.
- For the Mundra UMPP, we have not assumed any escalation in coal prices since these are indexed (as against a 1% annual increase considered in the base case scenario). The value increases to Rs37/per share after adjusting for the premium in the acquisition of the Bumi mines.
- We value the company's investments at current market prices assuming they represent the fair realizable value. The value of the investments is Rs294/share.

Accordingly, our bull-case fair value is Rs797/share.

Exhibit 22

#### Bull Case: Sum-of-Parts Valuation

	Rs/share
Existing Generation Business (incl. Mumbai)	393
NDPL	28
Powerlinks Transmission	13
Coastal Maharashtra	32
Mundra UMPP (adjusted for Bumi acquisition premium)	37
Investment in Group Cos.	294
<b>Bull Case</b>	<b>797</b>

Source: Morgan Stanley Research

### Bear-case Scenario

In this scenario, we keep the valuation of the existing generation business, the Delhi distribution business and the holding in Powerlinks Transmission similar to that in our base-case scenario. However, we make changes in the following areas:

- We assume a two year delay in the coastal Maharashtra project and hence the value reduces to Rs25/share.
- The value for Mundra UMPP is lowered to Rs109/share due to delays in commissioning and higher coal prices.
- We value the investments at book value (as the company's plans for liquidating these assets to fund its capex program remain ambiguous) which translates to Rs81/share.

Accordingly, we arrive at a bear-case fair value of Rs458/share.

Exhibit 23

#### Bear Case: Sum-of-Parts Valuation

	Rs/share
Existing Generation Business (incl Mumbai)	311
NDPL	28
Powerlinks Transmission	13
Coastal Maharashtra	25
Mundra UMPP (adjusted for premium on Bumi acquisition)	0
Investment in Group Cos.	81
<b>Bear Case</b>	<b>458</b>

Source: Morgan Stanley Research

Exhibit 24

**Global Valuation Comparables: P/E Multiples**

Name	Currency	Month Reported	Stock Price * (Local Currency)	M Cap (US\$mn)	EPS(Local Currency)			P/E			EPS CAGR
					Dec 05/Mar 06	Dec 06/Mar 07E	Dec 07E/Mar 08E	Dec 05/Mar 06	Dec 06/Mar 07E	Dec 07E/Mar 08E	
<b>Asia-Pacific Companies</b>											
Cheung Kong Infra.	HKD	Dec	28.1	8,108	1.76	1.59	1.98	16.0	17.7	14.2	6%
China Resources Power	HKD	Dec	13.5	6,580	0.49	0.62	0.70	27.5	21.7	19.2	20%
CLP Holdings	HKD	Dec	57.2	17,616	3.89	3.95	4.24	14.7	14.5	13.5	4%
Datang Int'l Power	CNY	Dec	9.3	6,396	0.44	0.49	0.60	21.3	19.0	15.5	17%
Hongkong Electric	HKD	Dec	42	11,378	3	3	3	12.7	13.0	12.4	1%
Huadian Power Int'l	CNY	Dec	3.4	2,628	0.18	0.20	0.20	19.3	17.1	17.4	5%
Huaneng Power	CNY	Dec	7.6	11,788	0.40	0.43	0.44	18.9	17.9	17.2	5%
Korea Electric Power	KRW	Dec	38,400	26,460	3,654	3,617	3,444	10.5	10.6	11.2	-3%
Shenergy	CNY	Dec	14	4,957	0.50	0.52	0.60	28.7	27.2	23.7	10%
Yangtze Power	CNY	Dec	13.4	14,186	0.41	0.43	0.50	32.8	30.9	26.7	11%
Tokyo Electric Power	JPY	Mar	4,060	46,260	180	214	200	22.5	18.9	20.3	5%
Malakoff Berhad	MYR	Aug	10	2,681	0.49	0.84	1.07	20.8	12.2	9.6	47%
Tenaga Nasional Bhd	MYR	Aug	12.0	14,429	0.35	0.53	0.85	34.3	22.9	14.1	56%
<b>European Companies</b>											
Drax	GBP	Dec	809	5,972	18.5	92.0	102.3	43.8	8.8	7.9	135%
E.ON	EUR	Dec	107.1	96,017	5.26	10.42	7.09	20.3	10.3	15.1	16%
EDF	EUR	Dec	62.2	154,259	1.99	2.50	2.95	31.3	24.9	21.1	22%
ENDESA	EUR	Dec	40.3	58,097	2.09	2.40	2.20	19.3	16.8	18.4	2%
ENEL	EUR	Dec	8	70,502	0.63	0.49	0.64	13.3	17.1	13.1	1%
RWE AG	EUR	Dec	79.5	60,818	4.41	5.20	5.66	18.0	15.3	14.1	13%
Suez	EUR	Dec	41	70,422	1.80	1.81	2.22	22.7	22.5	18.4	11%
Scottish & Southern	GBP	Mar	1,530	26,348	89.4	95.8	95.0	17.1	16.0	16.1	3%
<b>American Companies</b>											
Consolidated Edison	USD	Dec	51.9	13,477	2.95	2.95	3.15	17.6	17.6	16.5	3%
Dominion	USD	Dec	89.1	31,525	4.53	5.70	6.02	19.7	15.6	14.8	15%
TXU Corp	USD	Dec	64.7	30,378	3.32	5.56	5.44	19.5	8.3	6.1	28%
<b>India Companies</b>											
Lanco Infratech Ltd	INR	Mar	145.7	802	NA	7.80	10.54	NA	18.7	13.8	NA
NTPC	INR	Mar	160.0	31,918	6.86	8.07	8.88	23.3	19.8	18.0	14%
Reliance Energy	INR	Mar	511.1	2,786	33.88	34.03	38.14	15.1	15.0	13.4	6%
Tata Power	INR	Mar	546.3	2,540	26.05	28.05	30.74	21.0	19.5	17.8	9%

Notes:

\* : Stock Prices for India and Asia Pacific Companies are as of 20 April, 2007; prices for European and American companies are as of 19 April, 2007.

NA: Not Available since Lanco ITL was listed in Nov 2006 and hence outstanding shares not comparable

E : Morgan Stanley Research Estimates

Source: Company data, Morgan Stanley Research



Exhibit 25

**Global Valuation Comparables: P/B and EV/EBITDA Multiples**

Name	Currency	Month Reported	Stock Price * (Local Currency)	M Cap (US\$m)	Rev. (US\$m)	P/B			EV/EBITDA		
					Dec 05/Mar 06	Dec 05/Mar 06	Dec 06/Mar 07E	Dec 07E/Mar 08E	Dec 05/Mar 06	Dec 06/Mar 07E	Dec 07E/Mar 08E
<b>Asia-Pacific Companies</b>											
Cheung Kong Infra.	HKD	Dec	28.10	8,108	290	1.7	1.9	1.8	11.1	16.7	12.9
China Resources Power	HKD	Dec	13.5	6,580	764	1.3	2.9	3.0	8.1	14.2	11.8
CLP Holdings	HKD	Dec	57.2	17,616	5,044	2.2	2.5	2.3	9.4	11.2	10.5
Datang Int'l Power	CNY	Dec	9.3	6,396	2,230	1.7	2.5	2.3	9.8	10.5	7.9
Hongkong Electric	HKD	Dec	41.7	11,378	1,499	2.0	1.9	1.8	8.9	9.3	8.6
Huadian Power Int'l	CNY	Dec	3.4	2,628	1,648	1.0	1.4	1.4	8.4	12.7	11.6
Huaneng Power	CNY	Dec	7.6	11,788	4,967	1.6	2.2	2.0	8.0	9.6	8.7
Korea Electric Power	KRW	Dec	38,400	26,460	24,587	0.6	0.6	0.5	5.6	5.7	5.4
Shenergy	CNY	Dec	14	4,957	987	1.5	3.5	3.2	5.8	12.2	11.9
Yangtze Power	CNY	Dec	13.4	14,186	900	2.5	4.4	4.0	10.8	18.1	15.2
Tokyo Electric Power	JPY	Mar	4,060.0	46,260	45,055	1.8	1.7	1.6	8.9	8.1	8.3
Malakoff Berhad	MYR	Aug	10.20	2,681	523	2.4	2.2	1.9	13.1	9.1	7.5
Tenaga Nasional Bhd	MYR	Aug	12.00	14,429	5,539	1.9	2.2	2.0	9.3	8.6	7.9
<b>European Companies</b>											
Drax	GBP	Dec	809	5,972	1,451	9.0	13.1	13.0	10.9	5.9	6.3
E.ON	EUR	Dec	107.1	96,017	66,471	1.3	1.4	1.4	6.2	6.2	6.2
EDF	EUR	Dec	62.2	154,259	60,445	2.7	4.5	4.1	8.0	10.2	9.5
ENDESA	EUR	Dec	40.33	58,097	21,583	1.8	3.0	2.8	7.0	9.1	8.9
ENEL	EUR	Dec	8.4	70,502	40,326	2.1	2.6	2.7	6.6	7.4	8.0
RWE AG	EUR	Dec	79.5	60,818	54,240	3.1	3.5	3.1	9.3	8.0	6.8
Suez	EUR	Dec	41	70,422	50,257	1.3	1.8	1.7	7.6	9.3	8.4
Scottish & Southern	GBP	Mar	1,530	26,348	20,493	4.9	4.3	4.0	11.1	10.4	10.3
<b>American Companies</b>											
Consolidated Edison	USD	Dec	51.9	13,477	10,504	1.8	1.8	1.8	9.1	9.4	9.9
Dominion	USD	Dec	89.1	31,525	18,041	2.8	2.5	1.5	10.3	9.2	6.0
TXU Corp	USD	Dec	64.7	30,378	10,437	50.8	15.4	13.0	9.3	7.5	7.5
<b>India Companies</b>											
Lanco Infratech Ltd	INR	Mar	145.7	802	201	0.8	2.1	1.7	4.6	11.3	13.0
NTPC	INR	Mar	160.0	31,918	6,188	3.0	2.7	2.5	19.8	18.1	16.6
Reliance Energy	INR	Mar	511.1	2,786	960	1.4	1.3	1.2	8.5	12.5	9.8
Tata Power	INR	Mar	546.3	2,540	1,086	2.1	2.0	1.9	13.2	13.6	12.6

Notes:

\* : Stock Prices for India and Asia Pacific Companies are as of 20 April, 2007; prices for European and American companies are as of 19 April, 2007.

E = Morgan Stanley Research Estimates

Source: Company data, Morgan Stanley Research

## Earnings Drivers

### Capacity Additions

Tata Power's total existing generation capacity of 2,323 MW comprises the following:

- 1,350 MW Trombay plant comprising five units and providing generation output to Mumbai License Area
- 448 MW of hydro-based capacity in Maharashtra, also supplying Mumbai License Area
- 428 MW at Jojobera (Bihar), which is a captive plant set up for Tata Steel
- 81 MW combined cycle plant at Belgaum
- 17 MW of wind generation capacity at Ahmednagar

In addition, Tata Power plans to set up 6,310 MW of new capacity, as shown in Exhibit 26. While not much information has been provided on the Mundra UMPP and the coastal Maharashtra projects, we believe these projects will be executed through SPVs and so we have not consolidated their financial performance.

We have not included the following capacities because of uncertainty surrounding their implementation:

- 4,000 MW gas plant in Shahapur (Maharashtra) – held up due to a pending land issue with Reliance Energy.
- 1,000 MW Maithon project in partnership with Damodar Valley Corporation – only 50% fuel link tied up.

Exhibit 26

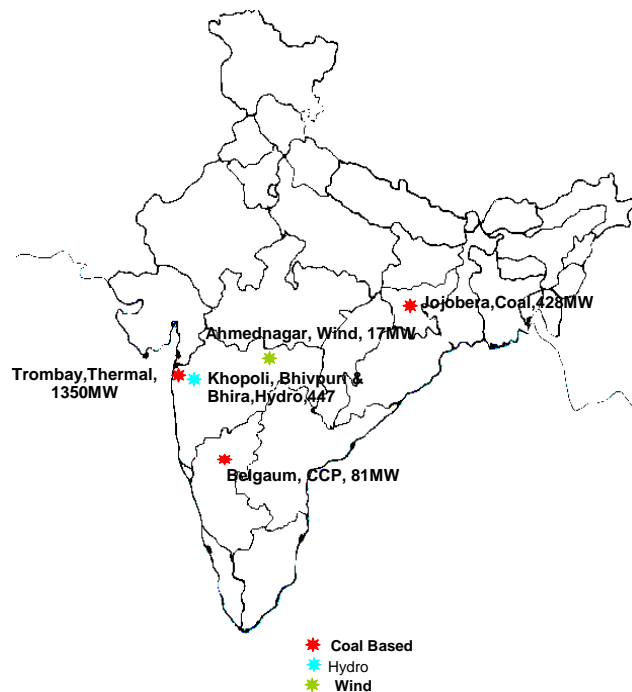
### Tata Power: Planned Capacity Expansion

	MW
Trombay Unit 8, Coal	250
Haldia (blast furnace gas)	120
Jamshedpur, for Tata Steel	120
Jojobera, Jharkhand, Coal	120
Mumbai , DG Sets	100
Dhule, Wind	100
Coastal Maharashtra	1,500
Mundra UMPP, Coal	4,000
<b>Total Planned Capacity</b>	<b>6,310</b>

Source: Company data, Morgan Stanley Research

Exhibit 27

### Existing Generation Capacity (MW)



Source: Company Data, Morgan Stanley Research

### Mundra UMPP

In December 2006, Tata Power won the Mundra UMPP, a 4,000 MW coal generation plant to be set up on the coastal region of Gujarat. Tata Power emerged as the lowest bidder for the project with a 25-year levelized tariff of Rs2.26/unit (KWh). Tata Power's current generation capacity is 2,323 MW and so the addition of the UMPP will catapult its total generation capacity into a higher league. The total capital expenditure on this UMPP is to be in the range of Rs160-180 billion and the funding may be in the ratio of 80:20 (debt:equity). The boiler will be procured from Doosan Heavy Industries with the first unit to be delivered in 42 months. The company is confident that issues (possibly land issues) currently holding up the project will be resolved in the next few months. We expect the company to start work on the project towards the end of F2008 and to take about 54-60 months to commission the plant.

Since the project will use imported coal, the company recently bought a 30% stake in two coal mines of PT Bumi Resources, an Indonesian coal trading company, to secure fuel supplies. This acquisition will assure it a long-term (10 to 12 years)

supply of coal at discounted prices. We believe the net calorific value of coal from these mines is about 4,800 Kcal/kg and so the total coal requirement will be about 11 mtpa.

We assume the project will be implemented through an SPV and, therefore, we have not consolidated the numbers. Our assumptions for the project are provided in Appendix 1.

We expect Tata Power to bid for other UMPPs that may be submitted to the bidding process.

### **Existing Generation Business**

The existing generation business primarily includes the supply of bulk electricity in the city of Mumbai. The company meets the electricity requirements of Mumbai from its generation plants in Trombay and its hydro plants in Maharashtra and purchases the balance of power from the MSEB (Maharashtra State Electricity Board). The company's primary consumers are BEST, Reliance Energy and India Railways. Since the business is regulated, the company earns a post-tax ROE on its capital base while expenses are treated as a pass-through.

We have built in a 7% revenue CAGR over F2007-12 since the Mumbai business will continue to grow with the city's increased power requirements due to expansion in the consumer base and an increase in per capita consumption. We estimate revenue CAGR over F2007-09 will be higher at 12% to reflect the various capacity addition projects to be launched in this period. We assume a marginal reduction in tariff subsequent to the capacity expansion.

### **NDPL**

Tata Power and BSES (now Reliance Energy) were the two companies that were awarded the three distribution circles in

Delhi in July 2002. NDPL was Tata Power's joint venture company while BRPL and BYPL were Reliance Energy's joint venture companies operating in Delhi. NDPL's performance in Delhi has been superior to that of BRPL and BYPL and the reduction in AT&C losses has significantly exceeded the minimum levels stipulated by the Delhi Government. NDPL has lowered AT&C losses by 21% as against the 15% specified by the government. NDPL has been able to achieve this despite inadequate transition finance from the Delhi government and due to tariff rollbacks.

The initial control period of five years ended in March 2007, and DERC is apparently working on the second phase of the control period, which will be for a further four years. While the AT&C loss reduction requirements have yet to be released, we think NDPL will be able to meet them. However, we do not think it will be easy for NDPL to earn incentives since loss reductions beyond the government's revised stipulated levels may be more difficult to achieve. We have consolidated the earnings of NDPL in our model and have built in a 16% ROE going forward (even though the DERC is contemplating a reduction of ROE to 14%, which we believe may not be implemented).

### **Transmission Project**

Tata Power, along with PowerGrid, has set up a transmission line from Tala (Bhutan) to North India. This 1,200 km line will transmit power from Bhutan and supply it to the northern parts of India. Tata Power holds a 51% stake in this project and its investment is Rs2.14 billion. The company will earn a 14% (post-tax) ROE on its equity investment. We estimate earnings from Powerlinks Transmission will be about Rs300 million a year and we have consolidated them in our model.

Exhibit 28

**Detailed Income Statement**

Rs mn	F2001	F2002	F2003	F2004	F2005	F2006	F2007E	F2008E	F2009E
Revenue from power supply	33,413	37,359	41,752	39,849	36,434	43,142	50,137	57,727	62,999
Less: Cash Discount	47	45	45	45	115	204	251	289	315
Less: Consumer Benefit Account	0	0	0	107	0	249	249	249	249
Add: Wheeling Charges	241	244	228	221	235	244	284	326	356
<b>Net Revenue from power supply</b>	<b>33,608</b>	<b>37,558</b>	<b>41,935</b>	<b>39,918</b>	<b>36,554</b>	<b>42,933</b>	<b>49,921</b>	<b>57,516</b>	<b>62,792</b>
Rental income	13	13	20	42	60	80	95	114	137
Income for services rendered	75	74	129	117	123	126	134	144	154
Revenue from Transmission EPC Unit	0	70	251	1,039	1,744	1,944	300	300	300
Income from broadband service	0	0	13	306	80	0	0	0	0
Profit on sale of assets	0	0	54	35	32	94	94	94	94
Miscellaneous receipts	68	65	126	210	105	108	161	194	232
Sale of electronic products less excise	53	219	398	560	573	326	358	394	433
<b>Total income from other operations</b>	<b>208</b>	<b>441</b>	<b>990</b>	<b>2,309</b>	<b>2,717</b>	<b>2,676</b>	<b>1,143</b>	<b>1,239</b>	<b>1,350</b>
<b>TOTAL REVENUE</b>	<b>33,816</b>	<b>37,999</b>	<b>42,926</b>	<b>42,227</b>	<b>39,270</b>	<b>45,609</b>	<b>51,064</b>	<b>58,755</b>	<b>64,142</b>
Growth (%)	141%	12%	13%	-2%	-7%	16%	12%	15%	9%
Cost of power purchased	4,013	3,990	4,069	4,095	4,157	5,832	6,994	7,674	8,506
Standby charges	3,960	3,960	3,960	3,960	3,960	3,960	3,960	3,960	3,960
Net purchase cost	53	30	109	135	197	1,872	3,034	3,714	4,546
Cost of fuel	16,875	17,684	20,626	18,489	18,640	23,965	28,509	33,143	34,784
% of sales	51%	47%	49%	46%	51%	56%	57%	57%	55%
Cost of fuel for Mumbai operations	0	0	0	0	16,410	22,210	26,490	30,822	32,184
Cost of fuel for Non-Mumbai operations	0	0	0	0	2,230	1,755	2,018	2,321	2,600
Employee Cost	1,353	1,369	1,420	1,918	1,554	1,737	2,145	2,468	2,694
Repairs and maintenance	1,157	1,241	1,086	889	1,135	1,160	1,209	1,287	1,438
Cost of materials - Transmission EPC Unit	0	57	231	971	1,648	2,041	300	300	300
Wheeling charges	191	213	207	151	205	174	222	236	382
Per unit charge	0.24	0.11	0.08	0.06	0.09	0.07	0.07	0.07	0.10
Provision for bad debts and advances	210	161	0	13	22	222	248	286	312
Provision for contingencies	0	0	0	0	300	-300	0	0	0
Tax on sale of electricity	512	1,172	1,233	1,223	460	265	308	355	387
Other SG&A expenses	2,540	2,686	2,273	2,723	1,956	1,878	2,103	2,420	2,642
<b>TOTAL EXPENSES</b>	<b>26,852</b>	<b>28,573</b>	<b>31,144</b>	<b>30,471</b>	<b>30,077</b>	<b>36,973</b>	<b>42,038</b>	<b>48,167</b>	<b>51,444</b>
<b>EBITDA</b>	<b>6,964</b>	<b>9,425</b>	<b>11,782</b>	<b>11,756</b>	<b>9,193</b>	<b>8,635</b>	<b>9,026</b>	<b>10,588</b>	<b>12,698</b>
Depreciation	2,046	2,817	3,180	3,340	3,596	2,783	3,000	3,273	4,101
<b>EBIT</b>	<b>4,919</b>	<b>6,609</b>	<b>8,601</b>	<b>8,416</b>	<b>5,597</b>	<b>5,852</b>	<b>6,026</b>	<b>7,315</b>	<b>8,597</b>
Interest and finance charges	2,309	3,483	3,412	2,837	1,914	1,653	2,069	2,559	3,434
Interest income	1,545	1,000	998	1,148	1,070	1,500	1,762	1,480	1,565
Dividend income	0	9	20	11	98	12	20	20	20
Profit on sale of investment	596	1,524	304	156	153	194	194	194	194
Misc receipts	232	116	54	26	4	6	50	50	50
Total other income	2,373	2,649	1,376	1,340	1,325	1,712	2,026	1,744	1,829
PBT	4,983	5,775	6,565	6,919	5,007	5,911	5,984	6,500	6,993
Tax	1,375	1,656	1,584	2,274	1,701	1,307	1,197	1,300	1,399
<b>PAT(Standalone)</b>	<b>3,608</b>	<b>4,120</b>	<b>4,981</b>	<b>4,644</b>	<b>3,306</b>	<b>4,605</b>	<b>4,787</b>	<b>5,200</b>	<b>5,594</b>
Share of NDPL profits	0	0	109	143	278	552	541	585	645
Share of Powerlinks Transmission	0	0	0	0	0	0	225	300	300
<b>Total profits</b>	<b>3,608</b>	<b>4,120</b>	<b>5,090</b>	<b>4,787</b>	<b>3,584</b>	<b>5,156</b>	<b>5,552</b>	<b>6,085</b>	<b>6,540</b>
Total extraordinary items	288	963	218	446	2,207	1,501	48	0	0
Profit after extraordinary items	3,896	5,082	5,308	5,234	5,792	6,657	5,600	6,085	6,540

Source: Company data, Morgan Stanley Research Estimates

Exhibit 29

**Detailed Balance Sheet**

Rs mn	F2001	F2002	F2003	F2004	F2005	F2006	F2007E	F2008E	F2009E
Share capital	1,979	1,979	1,979	1,979	1,979	1,979	1,979	1,979	1,979
General Reserve	6,051	7,099	9,558	11,402	12,902	14,402	14,402	14,402	14,402
P/L	8,231	8,979	10,194	11,976	14,328	16,662	19,378	22,485	25,916
Share Premium	10,600	10,600	10,542	10,139	7,185	7,191	7,191	7,191	7,191
Other Reserves	6,040	7,907	9,016	9,097	8,989	9,414	9,414	9,414	9,414
Share in profit of NDPL	0	0	109	252	530	1,081	1,622	2,206	2,852
Share in profit of Powerlink Transmission	0	0	0	0	0	0	225	525	825
<b>Total shareholders funds</b>	<b>32,901</b>	<b>36,563</b>	<b>41,397</b>	<b>44,845</b>	<b>45,913</b>	<b>50,729</b>	<b>54,211</b>	<b>58,202</b>	<b>62,579</b>
Secured debt	13,380	15,065	13,404	7,217	10,591	9,460	11,460	16,460	21,460
Unsecured debt	12,599	12,824	10,588	9,997	18,009	18,090	20,090	25,090	35,090
<b>Total debt</b>	<b>25,979</b>	<b>27,889</b>	<b>23,992</b>	<b>17,214</b>	<b>28,600</b>	<b>27,550</b>	<b>31,550</b>	<b>41,550</b>	<b>56,550</b>
Special app towards project cost	4,809	4,923	5,211	5,336	5,336	5,336	5,336	5,336	5,336
Capital contb from consumers	416	418	418	418	418	418	418	418	418
Deferred tax liability	0	1,336	0	0	113	0	0	0	0
<b>Total Liabilities</b>	<b>64,105</b>	<b>71,130</b>	<b>71,018</b>	<b>67,813</b>	<b>80,381</b>	<b>84,033</b>	<b>91,515</b>	<b>105,506</b>	<b>124,883</b>
Gross Block	43,974	49,751	53,708	55,347	54,658	59,247	60,747	70,177	93,877
Accumulated depreciation	14,469	17,246	20,347	23,644	26,574	29,217	32,217	35,490	39,592
Net block	29,505	32,506	33,361	31,703	28,085	30,030	28,530	34,687	54,286
CWIP	4,044	3,552	1,913	2,615	4,377	2,118	11,418	14,113	2,500
Foreign currency liability on assets	2,451	2,009	1,466	449	0	0	0	0	0
Investments	7,729	8,614	17,740	20,202	19,887	23,555	26,167	30,008	35,154
- Tata Teleservices Ltd	2,547	3,000	5,000	6,000	6,000	7,260	7,260	7,260	7,260
- Tata Teleservices Maharashtra Ltd	0	0	1,154	1,154	1,154	1,154	1,154	1,154	1,154
- VSNL	0	0	0	0	0	1,218	1,218	1,218	1,218
- PTC	0	0	100	176	176	176	176	176	176
- Panatone Inv Ltd	0	800	5,000	5,000	5,000	5,000	5,000	5,000	5,000
- NDPL	0	0	1,912	2,055	2,333	2,884	3,425	4,009	4,655
- Powerlinks Transmission	0	0	0	0	995	2,142	2,367	2,892	3,716
- Tata Sons	406	406	256	256	1,367	1,367	1,367	1,367	1,367
- Other Subsidiary companies	2,274	2,274	2,274	3,293	1,872	1,474	1,474	1,474	1,474
- Other investments	2,502	2,134	2,044	2,267	990	879	2,725	5,456	9,133
Deferred tax asset	0	0	206	372	0	162	162	162	162
Inventory	3,115	3,260	3,310	3,132	2,970	4,423	5,447	6,400	7,051
Sundry debtors	5,733	7,659	8,890	7,182	6,966	10,582	12,053	13,692	15,322
Cash and cash equiv	17,686	13,277	8,151	7,857	25,468	21,553	16,746	16,141	20,686
Advance tax	2,133	1,879	3,296	1,884	2,429	827	1,197	1,300	1,399
Deposits	2,217	6,249	6,448	2,958	1,346	2,167	2,275	2,389	2,508
Other current assets	1,637	5,423	1,454	1,255	1,729	1,826	1,917	2,013	2,114
Sundry creditors	7,135	8,893	9,071	6,996	5,341	5,489	6,468	7,384	8,154
Proposed dividend	1,092	0	1,453	1,565	1,695	1,920	2,071	2,095	2,163
Employee liabilities	694	794	905	970	1,047	1,143	1,200	1,260	1,323
Provision for premium on redemption of debt	0	0	0	0	2,731	2,759	2,759	2,759	2,759
Other provisions/liabilities	3,224	3,609	3,788	2,266	2,061	1,899	1,899	1,899	1,899
Net current assets	20,376	24,450	16,332	12,472	28,032	28,168	25,238	26,536	32,781
<b>Total Assets</b>	<b>64,105</b>	<b>71,130</b>	<b>71,018</b>	<b>67,813</b>	<b>80,381</b>	<b>84,033</b>	<b>91,515</b>	<b>105,506</b>	<b>124,883</b>

Source: Company data, Morgan Stanley Research Estimates

Exhibit 30

**Detailed Cash Flow**

Rs mn	F2001	F2002	F2003	F2004	F2005	F2006	F2007E	F2008E	F2009E
<b>PAT (Standalone)</b>	<b>3,896</b>	<b>5,082</b>	<b>5,199</b>	<b>5,091</b>	<b>5,514</b>	<b>6,105</b>	<b>4,835</b>	<b>5,200</b>	<b>5,594</b>
Depreciation	2,046	2,817	3,180	3,340	3,596	2,783	3,000	3,273	4,101
Interest	2,309	3,483	3,412	2,837	1,914	1,653	2,069	2,559	3,434
Share of NDPL profits	0	0	109	143	278	552	541	585	645
Share of Powerlinks Transmission	0	0	0	0	0	0	225	300	300
(Inc)/dec in stock	-1,751	-145	-50	178	162	-1,452	-1,024	-953	-651
(Inc)/dec in debtors	-2,794	-1,926	-1,231	1,708	216	-3,616	-1,470	-1,639	-1,631
(Inc)/dec in deposits	580	-4,032	-199	3,490	1,611	-820	-108	-114	-119
(Inc)/dec in other items	-2,102	-3,532	2,347	1,444	-646	1,342	-461	-199	-199
Inc/(dec) in creditors	4,088	1,758	178	-2,075	-1,655	147	979	916	770
Inc/(dec) in employee liabilities	411	100	111	65	77	96	57	60	63
Inc/(dec) in other liabilities	911	386	179	-1,522	2,527	-134	0	0	0
Changes in working capital	-658	-7,391	1,334	3,288	2,292	-4,437	-2,028	-1,928	-1,767
<b>Cash flow from operations</b>	<b>7,593</b>	<b>3,990</b>	<b>13,234</b>	<b>14,699</b>	<b>13,594</b>	<b>6,656</b>	<b>8,641</b>	<b>9,988</b>	<b>12,307</b>
Capex	-23,855	-4,882	-1,854	-1,367	-1,290	-2,471	-10,800	-12,125	-12,087
Purchase of investments	-3,620	-885	-9,127	-2,461	315	-3,668	-2,612	-3,840	-5,146
<b>Cash flow from investing activities</b>	<b>-27,475</b>	<b>-5,767</b>	<b>-10,981</b>	<b>-3,828</b>	<b>-976</b>	<b>-6,139</b>	<b>-13,412</b>	<b>-15,965</b>	<b>-17,233</b>
Equity issuance	6,031	0	-58	-403	-2,953	6	0	0	0
Loan proceeds	13,499	1,910	-3,897	-6,778	11,386	-1,050	4,000	10,000	15,000
Dividend	17	2,082	-165	1,275	1,568	1,694	1,919	2,070	2,094
Interest	2,309	3,483	3,412	2,837	1,914	1,653	2,069	2,559	3,434
Others	10,654	1,023	-177	129	42	-41	-48	0	0
<b>Cash flow from financing activities</b>	<b>27,858</b>	<b>-2,632</b>	<b>-7,380</b>	<b>-11,164</b>	<b>4,992</b>	<b>-4,432</b>	<b>-36</b>	<b>5,371</b>	<b>9,472</b>
Net change in cash	7,976	-4,409	-5,126	-293	17,610	-3,915	-4,807	-606	4,546
Opening cash and equiv	9,709	17,686	13,277	8,151	7,857	25,468	21,553	16,746	16,141
Closing cash and equiv	17,686	13,277	8,151	7,857	25,468	21,553	16,746	16,141	20,686

E = Morgan Stanley Research Estimates  
Source: Company data, Morgan Stanley Research

## Appendix 1: Mundra UMPP

### Mundra UMPP Assumptions

Capacity (MW)	4,000
Cost per MW (Rs mn)	45
Total cost (Rs mn)	180,000
Debt Proportion	80%
Salvage value	18,000
<b>Funding Basis:</b>	
Debt component (Rs mn)	144,000
Equity component (Rs mn)	36,000
Cost of equity	12.7%
Terminal growth rate (Year 26 onwards)	4%
Tariff (Rs/unit)	2.26

### Mundra Operational Assumptions

PLF	85%
Auxiliary consumption	6%
Rebate	2.25%
O&M Escalation	2%
Interest Expense rate	10.0%
Rate of interest income	8%
Tax	
MAT	11.22%
Normal Tax	33.99%
Depreciation rate	5.2%

Source: Company data, Morgan Stanley Research Estimates

### Coal Assumptions

Cost of production in Bumi (US\$/ton)	27
Markup	75%
Sale price (US\$/ton)	47.3
Freight cost (US\$/ton)	14
Import duty	5%
<b>Total landed cost (US\$/ton)</b>	<b>64.3</b>
<b>Landed Cost of Imported coal (Rs/ton)</b>	<b>2765</b>
Annual increase in coal cost	1%
Heat rate	1850
Calorific value	4800
Coal required per unit of electricity (kg/KWh)	0.39

Source: Company data, Morgan Stanley Research Estimates

### Mundra UMPP: Profitability Statement

	F2014E	F2015E	F2016E	F2017E	F2018E	Terminal Year
	Year # 1	Year # 2	Year # 3	Year # 4	Year # 5	F2039E
						Year # 26
<b>Revenue</b>	<b>63,273</b>	<b>63,273</b>	<b>63,273</b>	<b>63,273</b>	<b>63,273</b>	<b>63,273</b>
Units generated	27,997	27,997	27,997	27,997	27,997	27,997
Tariff (Rs/unit)	2.26	2.26	2.26	2.26	2.26	
<b>Operating Cost</b>	<b>36,104</b>	<b>36,499</b>	<b>36,899</b>	<b>37,305</b>	<b>37,715</b>	<b>47,633</b>
Fuel cost	29,840	30,139	30,440	30,745	31,052	38,268
Rebate	1,424	1,424	1,424	1,424	1,424	1,424
O&M	4,840	4,937	5,036	5,136	5,239	7,941
<b>EBITDA</b>	<b>27,169</b>	<b>26,774</b>	<b>26,374</b>	<b>25,969</b>	<b>25,558</b>	<b>15,641</b>
Depreciation	8,424	8,424	8,424	8,424	8,424	-
<b>EBIT</b>	<b>18,745</b>	<b>18,350</b>	<b>17,950</b>	<b>17,545</b>	<b>17,134</b>	<b>15,641</b>
Interest expense	13,440	12,480	11,520	10,560	9,600	-
Other Income	54	182	346	550	795	31,323
<b>PBT</b>	<b>5,360</b>	<b>6,052</b>	<b>6,776</b>	<b>7,535</b>	<b>8,329</b>	<b>46,964</b>
Tax	1,822	2,057	2,303	2,561	2,831	15,963
<b>PAT</b>	<b>3,538</b>	<b>3,995</b>	<b>4,473</b>	<b>4,974</b>	<b>5,498</b>	<b>31,001</b>

Source: Company data, Morgan Stanley Research Estimates



**Morgan Stanley ModelWare is a proprietary analytic framework that helps clients uncover value, adjusting for distortions and ambiguities created by local accounting regulations.** For example, ModelWare EPS adjusts for one-time events, capitalizes operating leases (where their use is significant), and converts inventory from LIFO costing to a FIFO basis. ModelWare also emphasizes the separation of operating performance of a company from its financing for a more complete view of how a company generates earnings.

## Disclosure Section

The information and opinions in this report were prepared or are disseminated by Morgan Stanley Dean Witter Asia Limited (which accepts the responsibility for its contents) and/or Morgan Stanley Dean Witter Asia (Singapore) Pte. (Registration number 199206298Z, regulated by the Monetary Authority of Singapore, which accepts the responsibility for its contents), and/or Morgan Stanley Asia (Singapore) Securities Pte Ltd (Registration number 200008434H, regulated by the Monetary Authority of Singapore, which accepts the responsibility for its contents), and/or Morgan Stanley Taiwan Limited and/or Morgan Stanley & Co International Limited, Seoul Branch, and/or Morgan Stanley Dean Witter Australia Limited (A.B.N. 67 003 734 576, holder of Australian financial services license No. 233742, which accepts responsibility for its contents), and/or JM Morgan Stanley Securities Private Limited and their affiliates (collectively, "Morgan Stanley").

### Analyst Certification

The following analysts hereby certify that their views about the companies and their securities discussed in this report are accurately expressed and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report: Parag Gupta.

Unless otherwise stated, the individuals listed on the cover page of this report are research analysts.

### Global Research Conflict Management Policy

This research has been published in accordance with our conflict management policy, which is available at [www.morganstanley.com/institutional/research/conflictpolicies](http://www.morganstanley.com/institutional/research/conflictpolicies).

### Important US Regulatory Disclosures on Subject Companies

As of March 30, 2007, Morgan Stanley beneficially owned 1% or more of a class of common equity securities of the following companies covered in this report: Reliance Energy, Tata Power Co.

As of March 30, 2007, Morgan Stanley held a net long or short position of US\$1 million or more of the debt securities of the following issuers covered in this report (including where guarantor of the securities): Reliance Energy.

Within the last 12 months, Morgan Stanley managed or co-managed a public offering of securities of LANCO Infratech Ltd.

In the next 3 months, Morgan Stanley expects to receive or intends to seek compensation for investment banking services from Reliance Energy, Tata Power Co.

Within the last 12 months, Morgan Stanley & Co. Incorporated has received compensation for products and services other than investment banking services from Tata Power Co.

Within the last 12 months, Morgan Stanley has provided or is providing investment banking services to, or has an investment banking client relationship with, the following companies covered in this report: Reliance Energy, Tata Power Co.

Within the last 12 months, Morgan Stanley has either provided or is providing non-investment banking, securities-related services to and/or in the past has entered into an agreement to provide services or has a client relationship with the following companies covered in this report: Tata Power Co.

The research analysts, strategists, or research associates principally responsible for the preparation of this research report have received compensation based upon various factors, including quality of research, investor client feedback, stock picking, competitive factors, firm revenues and overall investment banking revenues.

Certain disclosures listed above are also for compliance with applicable regulations in non-US jurisdictions.

### STOCK RATINGS

Different securities firms use a variety of rating terms as well as different rating systems to describe their recommendations. For example, Morgan Stanley uses a relative rating system including terms such as Overweight, Equal-weight or Underweight (see definitions below). A rating system using terms such as buy, hold and sell is not equivalent to our rating system. Investors should carefully read the definitions of all ratings used in each research report. In addition, since the research report contains more complete information concerning the analyst's views, investors should carefully read the entire research report and not infer its contents from the rating alone. In any case, ratings (or research) should not be used or relied upon as investment advice. An investor's decision to buy or sell a stock should depend on individual circumstances (such as the investor's existing holdings) and other considerations.



**Global Stock Ratings Distribution**

(as of March 31, 2007)

For disclosure purposes only (in accordance with NASD and NYSE requirements), we include the category headings of Buy, Hold, and Sell alongside our ratings of Overweight, Equal-weight and Underweight. Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, and Underweight are not the equivalent of buy, hold, and sell but represent recommended relative weightings (see definitions below). To satisfy regulatory requirements, we correspond Overweight, our most positive stock rating, with a buy recommendation; we correspond Equal-weight and Underweight to hold and sell recommendations, respectively.

Stock Rating Category	Coverage Universe		Investment Banking Clients (IBC)		
	Count	% of Total	Count	% of Total IBC	% of Rating Category
<b>Overweight/Buy</b>	<b>843</b>	<b>38%</b>	<b>292</b>	<b>44%</b>	<b>35%</b>
<b>Equal-weight/Hold</b>	<b>991</b>	<b>45%</b>	<b>284</b>	<b>42%</b>	<b>28%</b>
<b>Underweight/Sell</b>	<b>364</b>	<b>17%</b>	<b>95</b>	<b>14%</b>	<b>26%</b>
<b>Total</b>	<b>2,198</b>		<b>671</b>		

Data include common stock and ADRs currently assigned ratings. An investor's decision to buy or sell a stock should depend on individual circumstances (such as the investor's existing holdings) and other considerations. Investment Banking Clients are companies from whom Morgan Stanley or an affiliate received investment banking compensation in the last 12 months.

**Analyst Stock Ratings**

Overweight (O or Over) - The stock's total return is expected to exceed the total return of the relevant country MSCI Index, on a risk-adjusted basis over the next 12-18 months.

Equal-weight (E or Equal) - The stock's total return is expected to be in line with the total return of the relevant country MSCI Index, on a risk-adjusted basis over the next 12-18 months.

Underweight (U or Under) - The stock's total return is expected to be below the total return of the relevant country MSCI Index, on a risk-adjusted basis, over the next 12-18 months.

More volatile (V) - We estimate that this stock has more than a 25% chance of a price move (up or down) of more than 25% in a month, based on a quantitative assessment of historical data, or in the analyst's view, it is likely to become materially more volatile over the next 1-12 months compared with the past three years. Stocks with less than one year of trading history are automatically rated as more volatile (unless otherwise noted). We note that securities that we do not currently consider "more volatile" can still perform in that manner.

Unless otherwise specified, the time frame for price targets included in this report is 12 to 18 months.

**Analyst Industry Views**

Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below.

Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below.

Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index.

Stock price charts and rating histories for companies discussed in this report are available at [www.morganstanley.com/companycharts](http://www.morganstanley.com/companycharts) or from your local investment representative. You may also request this information by writing to Morgan Stanley at 1585 Broadway, (Attention: Equity Research Management), New York, NY, 10036 USA.

**Other Important Disclosures**

For a discussion, if applicable, of the valuation methods used to determine the price targets included in this summary and the risks related to achieving these targets, please refer to the latest relevant published research on these stocks. Research is available through your sales representative or on Client Link at [www.morganstanley.com](http://www.morganstanley.com) and other electronic systems.

This report does not provide individually tailored investment advice. It has been prepared without regard to the individual financial circumstances and objectives of persons who receive it. The securities discussed in this report may not be suitable for all investors. Morgan Stanley recommends that investors independently evaluate particular

investments and strategies, and encourages investors to seek the advice of a financial adviser. The appropriateness of a particular investment or strategy will depend on an investor's individual circumstances and objectives. The securities, instruments, or strategies discussed in this report may not be suitable for all investors, and certain investors may not be eligible to purchase or participate in some or all of them.

This report is not an offer to buy or sell or the solicitation of an offer to buy or sell any security or to participate in any particular trading strategy. The "Important US Regulatory Disclosures on Subject Companies" section lists all companies mentioned in this report where Morgan Stanley owns 1% or more of a class of common securities of the companies. For all other companies mentioned in this report, Morgan Stanley may have an investment of less than 1% in securities or derivatives of securities of companies mentioned in this report, and may trade them in ways different from those discussed in this report. Employees of Morgan Stanley not involved in the preparation of this report may have investments in securities or derivatives of securities of companies mentioned in this report, and may trade them in ways different from those discussed in this report. Derivatives may be issued by Morgan Stanley or associated persons.

Morgan Stanley and its affiliate companies do business that relates to companies covered in its research reports, including market making and specialized trading, risk arbitrage and other proprietary trading, fund management, commercial banking, extension of credit, investment services and investment banking. Morgan Stanley sells to and buys from customers the securities/instruments of companies covered in its research reports on a principal basis.

With the exception of information regarding Morgan Stanley, reports prepared by Morgan Stanley research personnel are based on public information. Morgan Stanley makes every effort to use reliable, comprehensive information, but we make no representation that it is accurate or complete. We have no obligation to tell you when opinions or information in this report change apart from when we intend to discontinue research coverage of a subject company. Facts and views presented in this report have not been reviewed by, and may not reflect information known to, professionals in other Morgan Stanley business areas, including investment banking personnel.

Morgan Stanley research personnel conduct site visits from time to time but are prohibited from accepting payment or reimbursement by the company of travel expenses for such visits.

The value of and income from your investments may vary because of changes in interest rates or foreign exchange rates, securities prices or market indexes, operational or financial conditions of companies or other factors. There may be time limitations on the exercise of options or other rights in your securities transactions. Past performance is not necessarily a guide to future performance. Estimates of future performance are based on assumptions that may not be realized. Unless otherwise stated, the cover page provides the closing price on the primary exchange for the subject company's securities.

To our readers in Taiwan: Information on securities that trade in Taiwan is distributed by Morgan Stanley Taiwan Limited ("MSTL"). Such information is for your reference only. The reader should independently evaluate the investment risks and is solely responsible for their investment decisions. This publication may not be distributed to the public media or quoted or used by the public media without the express written consent of Morgan Stanley. Information on securities that do not trade in Taiwan is for informational purposes only and is not to be construed as a recommendation or a solicitation to trade in such securities. MSTL may not execute transactions for clients in these securities.

To our readers in Hong Kong: Information is distributed in Hong Kong by and on behalf of, and is attributable to, Morgan Stanley Dean Witter Asia Limited as part of its regulated activities in Hong Kong. If you have any queries concerning this publication, please contact our Hong Kong sales representatives.

Certain information in this report was sourced by employees of the Shanghai Representative Office of Morgan Stanley Dean Witter Asia Limited for the use of Morgan Stanley Dean Witter Asia Limited.

This publication is disseminated in Japan by Morgan Stanley Japan Securities Co., Ltd.; in Hong Kong by Morgan Stanley Dean Witter Asia Limited (which accepts responsibility for its contents); in Singapore by Morgan Stanley Dean Witter Asia (Singapore) Pte. (Registration number 199206298Z) and/or Morgan Stanley Asia (Singapore) Securities Pte Ltd (Registration number 200008434H), regulated by the Monetary Authority of Singapore, which accepts responsibility for its contents; in Australia by Morgan Stanley Dean Witter Australia Limited A.B.N. 67 003 734 576, holder of Australian financial services licence No. 233742, which accepts responsibility for its contents; in Korea by Morgan Stanley & Co International Limited, Seoul Branch; in India by JM Morgan Stanley Securities Private Limited; in Canada by Morgan Stanley Canada Limited, which has approved of, and has agreed to take responsibility for, the contents of this publication in Canada; in Germany by Morgan Stanley Bank AG, Frankfurt am Main, regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin); in Spain by Morgan Stanley, S.V., S.A., a Morgan Stanley group company, which is supervised by the Spanish Securities Markets Commission (CNMV) and states that this document has been written and distributed in accordance with the rules of conduct applicable to financial research as established under Spanish regulations; in the United States by Morgan Stanley & Co. Incorporated, which accepts responsibility for its contents. Morgan Stanley & Co. International plc, authorized and regulated by Financial Services Authority, disseminates in the UK research that it has prepared, and approves solely for the purposes of section 21 of the Financial Services and Markets Act 2000, research which has been prepared by any of its affiliates. Private U.K. investors should obtain the advice of their Morgan Stanley & Co. International plc representative about the investments concerned. In Australia, this report, and any access to it, is intended only for "wholesale clients" within the meaning of the Australian Corporations Act.

The trademarks and service marks contained herein are the property of their respective owners. Third-party data providers make no warranties or representations of any kind relating to the accuracy, completeness, or timeliness of the data they provide and shall not have liability for any damages of any kind relating to such data. The Global Industry Classification Standard ("GICS") was developed by and is the exclusive property of MSCI and S&P.

Morgan Stanley has based its projections, opinions, forecasts and trading strategies regarding the MSCI Country Index Series solely on publicly available information. MSCI has not reviewed, approved or endorsed the projections, opinions, forecasts and trading strategies contained herein. Morgan Stanley has no influence on or control over MSCI's index compilation decisions.

This report or any portion hereof may not be reprinted, sold or redistributed without the written consent of Morgan Stanley.

Morgan Stanley research is disseminated and available primarily electronically, and, in some cases, in printed form.

**Additional information on recommended securities is available on request.**

**The Americas**

1585 Broadway  
New York, NY 10036-8293  
**United States**  
Tel: +1 (1) 212 761 4000

**Europe**

25 Cabot Square, Canary Wharf  
London E14 4QA  
**United Kingdom**  
Tel: +44 (0) 20 7 425 8000

**Japan**

4-20-3 Ebisu, Shibuya-ku  
Tokyo 150-6008  
**Japan**  
Tel: +81 (0) 3 5424 5000

**Asia/Pacific**

Three Exchange Square  
Central  
**Hong Kong**  
Tel: +852 2848 5200

**Industry Coverage:India Utilities**

<b>Company (Ticker)</b>	<b>Rating (as of)</b>	<b>Price (04/20/2007)</b>
<b>Parag Gupta</b>		
LANCO Infratech Ltd (LAIN.BO)	E-V (04/23/2007)	Rs145.70
NTPC (NTPC.BO)	E (04/23/2007)	Rs160
Reliance Energy (RLEN.BO)	O (04/23/2007)	Rs511.05
Tata Power Co (TTPW.BO)	O (04/23/2007)	Rs546.3

Stock Ratings are subject to change. Please see latest research for each company.