



# Lignite Ignite !!

16<sup>th</sup> May 2008

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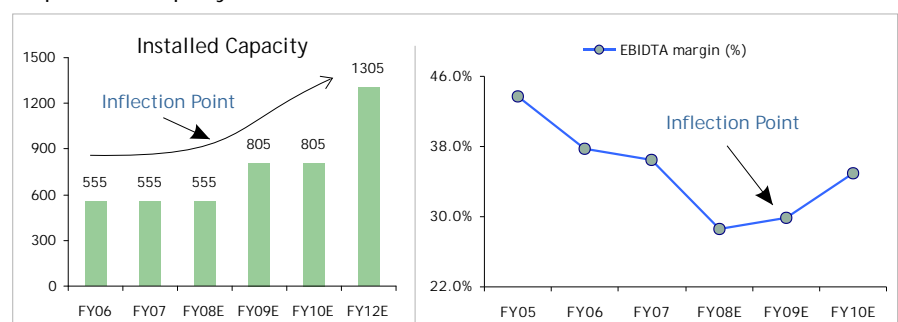


Surging fuel prices is making headlines everyday. Assuring fuel linkages and cut-throat competitive bidding are the new norms of the game of Power. Also the poor state of the capital markets is questioning the very conception of the numerous proclamations made in the past few quarters. All these, along with the continual execution-&-third party delays are the various issues perturbing the power utilities in the current buoyant but challenging times. No doubt, the sector which gave one of the highest returns last year has been unable to withstand the liquidity brunt with a negative 31.47 % absolute returns since its high of 4863 in Jan '08 (BSE Power Index).

In our maiden effort on a power utility company, we find Gujarat Industries Power Company Limited (GIPCL) to be a very promising bet with a unique positioning in the overall power generation space. GIPCL has been operating gas & lignite based power plants and catering to the power needs of various State promoted organizations. While the company has risen superbly on the front of debt restructuring and improving financial health of its key client, Gujarat Urja Vikas Nigam Limited (GUVNL), erstwhile Gujarat Electricity Board (GEB), GIPCL has also come in line of fire on account of the surging gas prices and expansion delays. But, if kept the past in the past, one would see GIPCL at the cusp of an interesting trajectory, in terms of both, growth and margin expansion. Finally, its the high assurance on the fuel issue and the visibility for margin expansion plus the same continuing for a hopeful further expansion, is what gives us the confidence in recommending this investing proposition.

Key highlights for why we like GIPCL :

- Track record of steady financial performance. Hidden in the erratic reported numbers & declining OPMs, is a steady track record, when one adjusts for the pass through in gas prices and adjustments for extraordinary items.
- Capacity expansion from 555 MW to 805MW in the current fiscal. Plans drawn for a further 500 MW addition.
- All new expansion based on Lignite versus Gas as a fuel to bring in substantial improvement in earnings. Sharp improvement in margins to follow as the overall fuel mix changes in favour of Lignite.
- GIPCL appears to be attractive based on our book value & replacement cost based valuations. We would expect ~25% returns in 1 year and about 45% returns based on our FY10 estimates. Relatively speaking, GIPCL shows a clear edge over Nevyeli Lignite, the only other Lignite focused power company.



Gujarat Industries Power Co. Limited : BUY | CMP Rs. 96.0 | Target Price Rs. 140.0

## Gujarat Industries Power Co. Ltd.

Buy | CMP Rs.96.0  
Target Rs. 140.0

Initiating Coverage

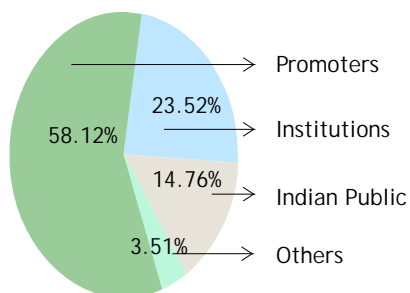
### Stock Data

Bloomberg : GIP.IN  
Reuters : GJIP.BO  
BSE Code : 517300  
NSE Code : GICPL  
BSE Group : B

### Stock Codes

Benchmark : BSE 500  
52 Week High : 184.70  
52 Week Low : 57.35  
Mkt Cap : Rs. 15,125 Mn  
Face Value : Rs. 10.0

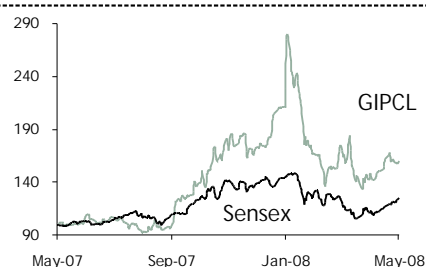
### Shareholding Pattern (as on March 08)



### Stock Returns

	1 Mth	3 Mths	6 Mths
GICPL	3.35	-3.33	-12.04
Sensex	8.17	-2.20	-9.66

### Price Comparison



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**Robust Expansion Plans:** The company is expanding its capacity at Surat Lignite Power Plant (SLPP) by installing 2 x 125 MW plant, taking the current capacity of 250 MW to 500 MW by Mar'09 and further expansion by installing 2 x 250 MW plant, thereby taking the SLPP capacity to 1000 MW by 2012.

**Huge Lignite Reserves:** Assured Raw Material supply, a great advantage for company and also multiple fuel sources, which are met through tie-ups, are improving the plant load factor (PLF). GIPCL has started using gas instead of naphtha at its 160 MW (Station-II) plant in Vadodara.

**Improving Financials of GUVNL:** Significant improvement in recoveries from Gujarat Electricity Board (GUVNL) augurs well for company going ahead as 80% of revenue comes from the board. GEB successfully achieved 100% cash collection efficiency and revenue collection of Rs. 19,020Mn per month in FY07 (FY06 - Rs. 9,590Mn).

**Improving Profitability:** Surat Lignite Power Plant to increase profitability. Gains will trickle down to the company's bottomline FY2010 onwards and thereby improve cash flows. We expect the top and bottom line to grow at a CAGR of 10.5% and 8.32% respectively over FY08-11.

**Valuations:** The scrips trades at an attractive 1.12x FY09E P/BV while most of its peers trade at 2.2-4.2x FY09E P/BV. Thus deriving benefits from the favourable power sector dynamics as well as its business model, good financials & ongoing expansion plans we see GIPCL having long-term value buoyed by good prospects. At Rs 96, scrip trades at 10.6x FY09E and 9.8x FY10E earnings. We recommend "BUY" based on our average of P/BV and Replacement Cost calculations with a price objective of Rs. 140 (46% upside), at which the scrip would trade at 1.5x FY10E P/BV.

Particulars (Rs Mn)	FY04	FY05	FY06	FY07	FY08E	FY09E	FY10E	FY11E
Total Revenues	7,454.0	7,446.7	7,565.9	7,955.8	8,951.8	9,972.8	12,992.2	13,363.8
EBITDA (%)	54.2%	47.7%	43.3%	40.5%	31.4%	31.3%	36.1%	35.1%
PAT	671.7	1,036.7	1,148.1	1,829.1	1,243.1	1,375.7	1,483.3	1,711.1
EPS (Rs.)	6.1	9.4	7.6	12.1	8.2	9.1	9.8	11.3
P/E (x)	15.8	10.3	12.6	7.9	11.7	10.6	9.8	8.5
ROCE (%)	17.4%	19.3%	15.6%	14.5%	8.7%	7.6%	11.1%	11.7%
RONW (%)	13.9%	18.4%	12.5%	17.2%	10.6%	10.6%	10.5%	11.1%
Debt/Equity (x)	2.6	1.4	0.7	0.5	0.9	1.1	0.9	0.7

It was in 1985 that 4 companies came together to promote this venture. They were -

- Gujarat State Fertilizers & Chemicals Ltd. (GSFC)
- Gujarat Alkalies and Chemicals Ltd. (GACL)
- Gujarat Electricity Board. (GUVNL)
- Petrofils Co-operative Ltd.

GIPCL is involved in the power generation business and distributes and sells its entire output to the producers and participating units. Initially, GIPCL had planned to set up a coal-based thermal power plant in Bharuch, Gujarat. However, with better availability of natural gas and low-cost capital requirement, GIPCL decided to set up a combined cycle gas turbine power plant at Baroda. The company subsequently installed a 145MW captive power plant (CPP) with three gas turbines of 32MW each and one steam turbine of 49MW.

Currently GIPCL operates gas based & lignite based power plants with an annual installed capacity of 555MW. In FY07 the company had reported total volume sales of 3905.45mn units. GIPCL has entered into a MoU with the promoters to charge a two-part tariff consisting of demand charges and energy charges.

Subsequently GAIL joined for their Captive need at Waghodia. The participant industries were allocated power on an equity-based formula, at highly economical rates. The advantage of this was evident in the first year itself since apart from insulating themselves from the uncertainties of the power supply, their savings in power bills and increase in productivity equal their capital investment.

The company has also been made the nodal agency for development of 2X 1,000MW LPP based on the lignite deposits in the southern Gujarat region and the process of setting up the expansion projects has been initiated. The company also plans to set up a 51:49 joint venture with other government agencies wherein it would hold 49% while 51% stake will be held by the other government agencies. Estimated cost of these projects would be to the tune of Rs. 80,000Mn.

## Gas Fired Power Plants

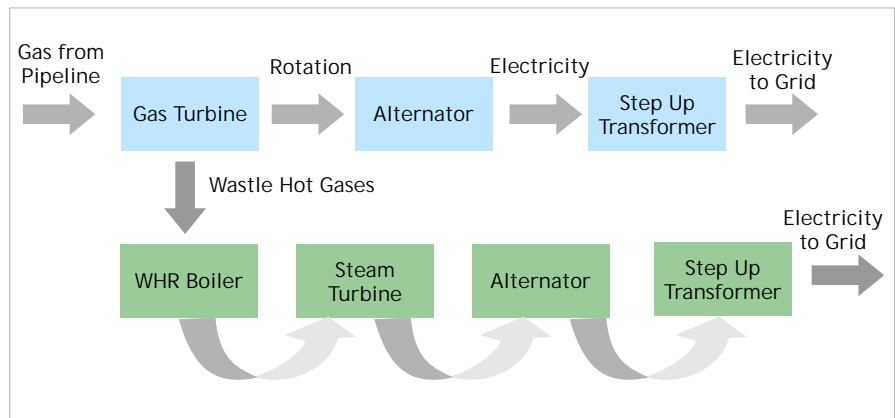
### 145 MW Gas based Combined Cycle Power Plant

Location:	P.O.Petrochemical - 391346, Dist. Vadodara.
Plant Configuration:	3x32 MW Gas Turbine & 1x49 MW Steam Turbine.
MOU / PPA	MOU
GUVNL Share	28%
Date of Commissioning:	Combined Cycle Operation: February 1992.
Project Cost:	Rs. 2,150Mn.
Status:	Supplies Power to Promoter Companies through MoU.
Fuel Source:	Natural Gas from GAIL and GSPC - Niko and R-LNG from GAIL.

### 160 MW Gas based Combined Cycle Power Plant

Location:	P.O.Petrochemical - 391346, Dist. Vadodara.
Plant Configuration:	1x106 MW Gas Turbine & 1x54 MW Steam Turbine.
MOU / PPA	PPA
GUVNL Share	100%
Date of Commissioning:	Combined Cycle Operation: November 1997.
Project Cost:	Rs. 3,670Mn.
Status:	Independent Power Producer (IPP) - Supplies power to GUVNL through Power Purchase Agreement.
Fuel Source:	Natural Gas from GAIL and GSPC - Niko and R-LNG from GAIL.

### Technology & Process at Station I & Station II



The gas-fired power stations employ Combined Cycle Gas Turbine (CCGT) technology, which has both gas and steam turbines. The energy for electricity generation under this technology comes from the combustion of the gas fuel. Hot gas formed by the combustion of the fuel drives a turbine, which in turn rotates an alternator to produce electricity. The exhaust gas from the turbine is still hot enough after driving the turbine to produce some steam in a heat recovery boiler. The steam captured in the heat recovery boiler drives a steam turbine, which rotates another alternator to produce additional electricity. The CCGT technology is well proven and quite fuel-efficient.

Lignite Fired Power Plants

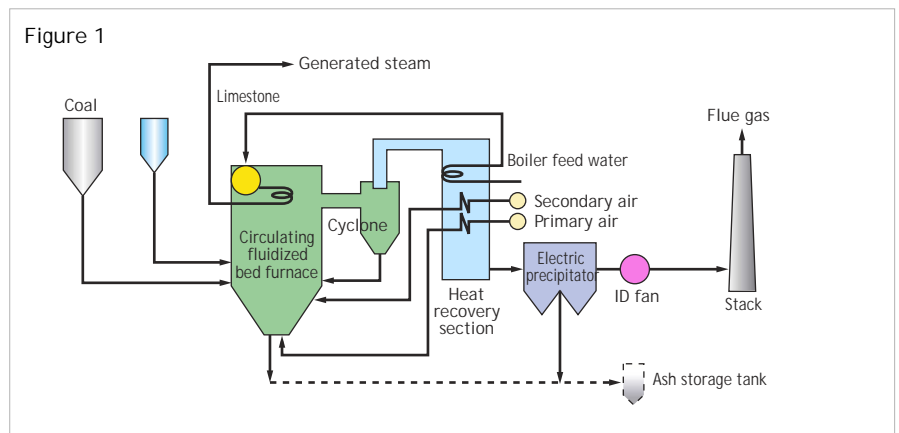
250 MW Lignite based Power Plant

Location:	Village Nani Naroli, Tal. Mangrol, Dist. Surat
Plant Configuration:	2X125 MW with Circulating Fluidized Bed Combustion (CFBC) Boilers and STGs.
MOU / PPA	PPA
GUVNL Share	100%
Date of Commissioning:	November 1999.
Project Cost:	Plant Rs. 12,100Mn. Mining Rs. 2,450Mn.
Status:	Independent Power Producer (IPP) - Supplies power to GUVNL through Power Purchase Agreement.
Fuel Source:	Lignite as fuel from Captive mine.

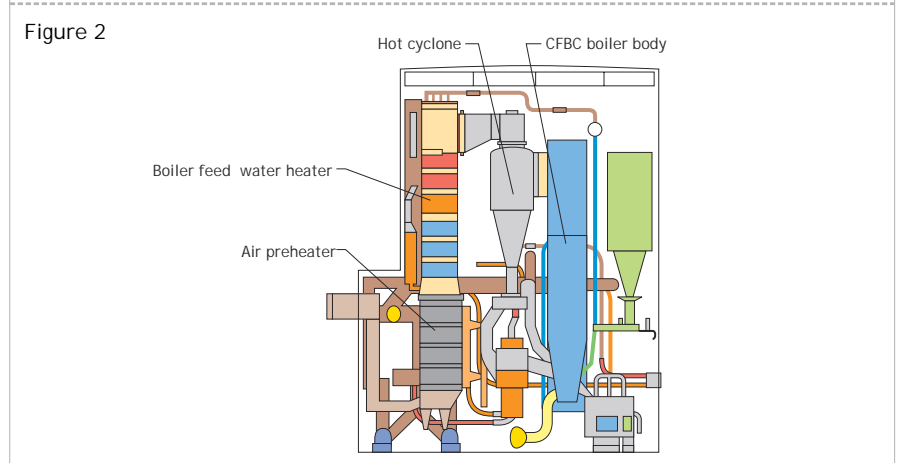
2\*125 MW Lignite based Power Plant Expansion

Location:	Vastan, Mangrol and Valia-Mangrol
Plant Configuration:	2X125 MW with Circulating Fluidized Bed Combustion (CFBC) Boilers and STGs.
MOU / PPA	PPA
GUVNL Share	100%
Date of Commissioning:	Phase I - November 2008 Phase II - March 2009
Project Cost:	Rs. 16,334Mn.
Status:	Independent Power Producer (IPP) - Supplies power to GUVNL through Power Purchase Agreement.
Fuel Source:	Lignite as fuel from Captive mine.

Process flow of circulating fluidized bed boiler



Schematic drawing of CFBC structure

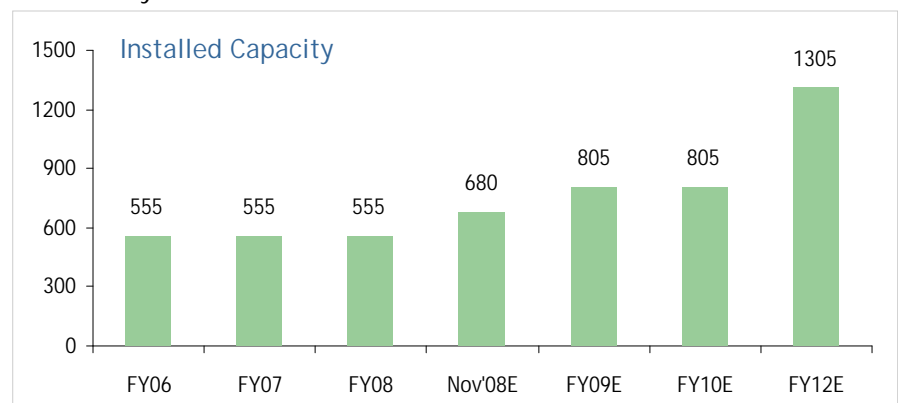


## Robust Expansion Plans on the back of Huge Lignite Reserves

GIPCL is setting up 250 MW lignite-fired power plant in Surat. This plant will come up in two phases of 125 MW each, commencing from Nov'08 and Mar'09. For this, the company has awarded the engineering; procurement and construction (EPC) contract to BHEL at a cost of Rs. 12,000Mn (or Rs. 48Mn per MW). The total cost of this expansion project including development of new captive lignite mines and other ancillary setups is expected to be around Rs. 16,334Mn, which it plans to fund through a debt to equity ratio of 75:25 (Rs. 12,244Mn of debt and Rs. 4,090Mn of equity). Project-levelised tariff (PLT) of the power plant is estimated at Rs. 2.14 per kWh. We expect the full benefit of this expanded capacity to flow in by FY2010, assuming a 1-year delay on account of any probable execution issues.

The SLPP expansion shall add on the profitability and further improve the cash flow of GIPCL

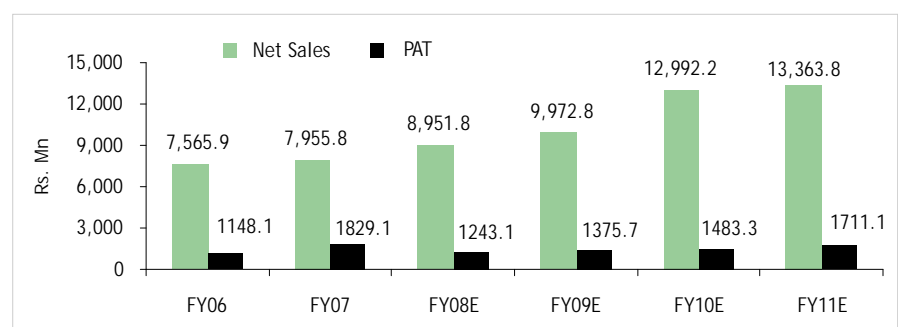
Further, company to expand its lignite-fired power generating capacity with a total project cost of Rs. 29,000Mn by installing two units of 250MW each, expandable to 600MW. The estimated investment covers the plants at Nani Naroli, a small village about 45 km from Surat in south Gujarat and lignite mine expansion, which is estimated to be around Rs. 4,000Mn. The additional units of 250 MW will use the eco-friendly circulating fluidised bed combustion (CFBC) steam generators technology. Post full expansion, total capacity will go up from 555 MW to 1305 MW by FY2012.



## Improvement in Top & Bottom Line

GIPCL is expected to benefit from the Surat Lignite Power Plant (SLPP). Gains will trickle down to the company's bottomline FY2010 onwards and thereby improve cash flows. For the SLPP project, GIPCL has already obtained statutory approvals and clearances for the infrastructural development of the land. We expect a 4-year CAGR growth of 10.5% and 8.32% over FY08-FY11 on the top and bottom line respectively.

Top and Bottom Line to grow at a CAGR of 10.5% and 8.32% respectively over FY08-FY11



Benefits of assured fuel supplies:

For the entire 750 MW expansion at SLPP, GIPCL is developing captive mines to secure supply of lignite. This expanded mining capacity along with the existing mines together have 212 million metric tonnes (MMT) of extractable lignite reserve, which is adequate to fuel 1,000 MW of power generation for over 30 years (assuming average annual consumption of 6.8 MMT). Also, since these are captive mines, the company enjoys benefits of low cost of transportation of lignite and has the benefit of predictable fuel cost for SLPP.

As for the gas-powered stations (145 MW and 160 MW) at Vadodara, the company has supply arrangements of natural Gas from GAIL and GSPC-Niko and regassified-LNG from GAIL. These assured supplies have in fact helped GIPCL to significantly improve plant load factor (PLF, or capacity utilization) of its gas-based plants at Vadodara. Also the plant availability factor improved during the same period. Since reliability and maintenance costs are a significant determinant of profitability for power generation companies, we believe that improvement in PLF and plant availability is likely to be a big positive for GIPCL going forward.

Stabilization of fuel supply:  
Multiple Fuel Sources

Company	Supply	Period
GSPC	0.15 mcmd on firm allotment basis	Oct-03
	0.15 mcmd on fall back basis	
GAIL	0.3 mcmd on firm allotment basis	Mar-04
	0.15 mcmd on fall back basis	
Shell / GSPC	Use of Spot gas in Station - II	As per requirement

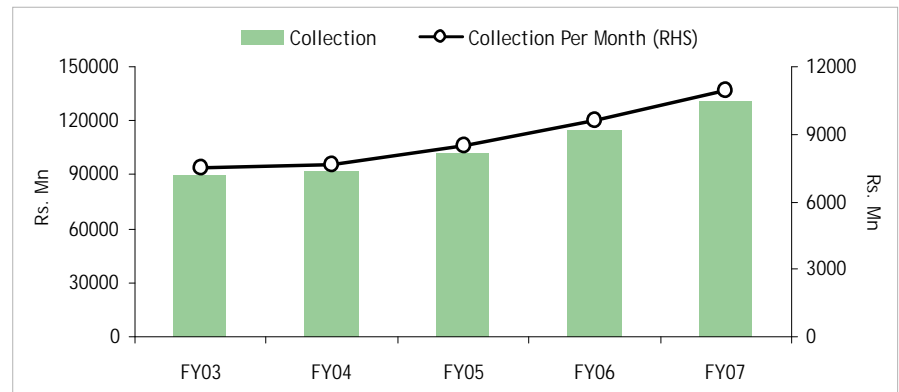
The improvement in the PLF has been due to better availability of gas to the company with GIPCL tying up with GSPC and GAIL for sourcing of gas. The PLF for the year ended FY08 stood at 87.45%, 80.13% and 85.57% as compared to 87.36%, 74.47% and 80% in FY07 for Station-I, Station-II and SLPP.

GIPCL has targeted an average PLF of over 88-90% at all the three plants for the full year and after the planned expansions are over, the company eyes more increase in the plant load factor from all the installed plants.

## Financial Performance of GUVNL (GEB) augurs well for GIPCL

Around 80% of power generated by GIPCL is sold to the Gujarat Electricity Board (GEB). In the last five years, there has been significant improvement in the financial performance of GEB, making GEB the single-largest customer of GIPCL and this augurs well for company going ahead. GEB has also initiated various measures to curb fuel, power purchase and interest costs and successfully achieved 100% cash collection efficiency in 2005-06. The revenue collection of the board improved to Rs. 19,020Mn per month in FY07 as compared to Rs. 9,590Mn per month in the previous month.

### Improving Cash Collections of GEB



## Recovery in Dues payable by GEB

GEB's Clearance of overdues has helped GIPCL's improving financial health

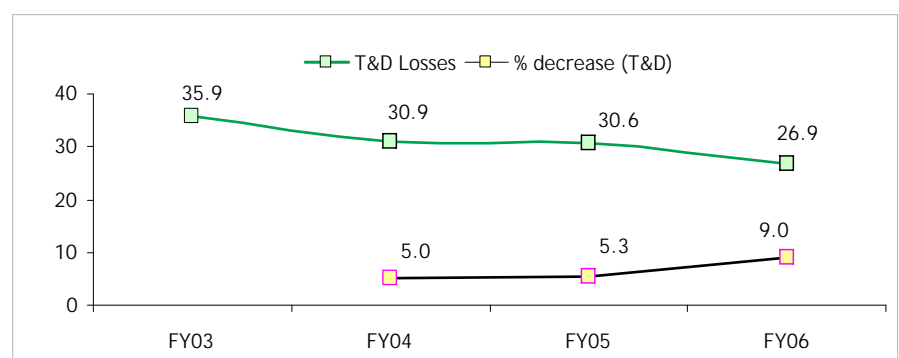
Particulars (Rs Mn)	FY06	FY05	FY04	FY03	FY02
Sales to GUVNL (GEB)	6272.7	6057.2	6307.5	7107.9	6263.7
Old Dues	788.6	2336.2	2046.7	4679.5	3809.8
Total Dues	7067.3	8393.4	8354.2	11787.4	10074
Receipts	6245.5	7604.8	6018	9740.70*	5394
Closing Balance	821.8	788.6	2336.2	2046.7	4679.5

\*Includes Rs. 2,750Mn by way of 7 year GEB Bonds received in March 2003.

The financial health of GEB has improved considerably due to the various steps to control three critical components of its total expenditure namely fuel cost, power purchase cost and interest cost.

## Reduction in T&D losses

Over the last four years GEB has reduced its transmission & distribution losses by 9%, with an average 2.25% reduction per year from FY03.

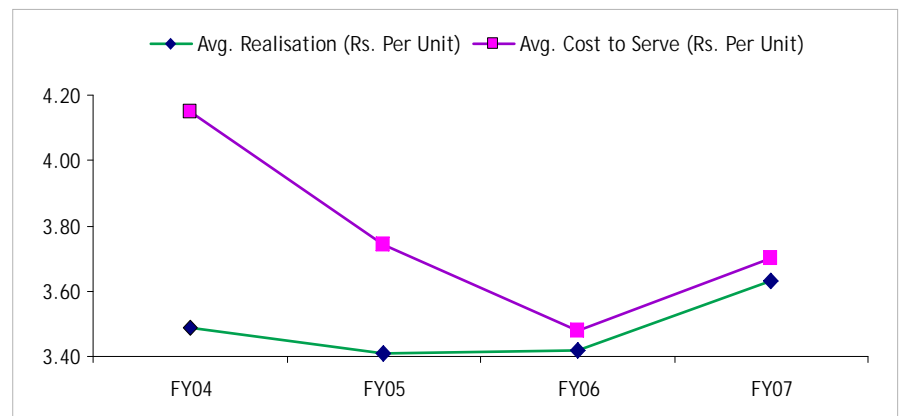


Reduction in power purchase cost

GEB has organized for the usage of natural gas as an alternative to naphtha as a feedstock. This arrangement has been implemented by all the Independent Power Producer's (IPP) in Gujarat leading to reduction in power purchase cost. GEB's power purchase decision is strictly based on merit order dispatches. Additionally, the company's board has also secured a price reduction to secure natural gas for the power sector.

Debt Restructured & Improved Realizations

To reduce its debt burden, GEB has restructured debt worth Rs. 50,060Mn with REC, PFC, LIC, SIDBI and ICICI. This has led to a reduction in net interest rates from 10.67% in FY2003 to 8.6% in FY2006, leading to savings of Rs. 3,630Mn for the remaining tenure.

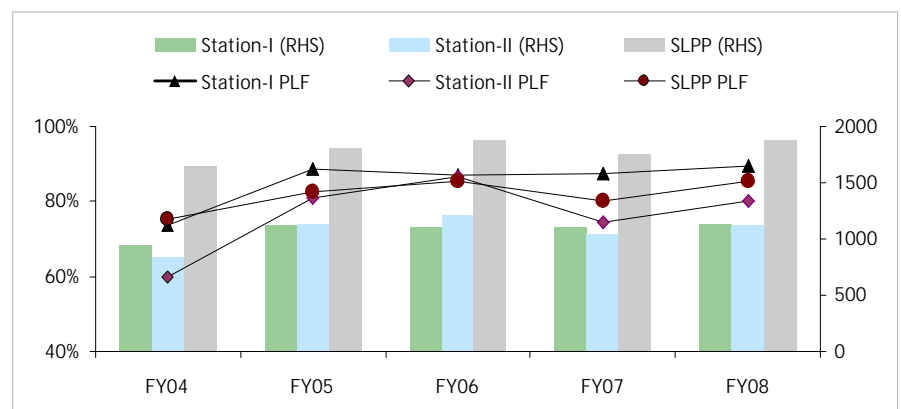


GEB's cost reduction measures coupled with simultaneous improvement in realizations resulted in a per unit surplus of Rs. 0.07 in 2006-07 from a per unit deficit of Rs. 0.66 in 2003-04. There has also been a significant improvement in payments from Gujarat Urja Vikas Nigam Ltd. (erstwhile Gujarat Electricity Board)

Good track record of operating power plants

The company has over 13 years of experience in power generation and presently manages three power plants with a total installed capacity of 555 MW. During FY08, PLF of all three power plants was 87.45%, 80.13% and 85.57% against an availability factor of 96.75%, 94.93% and 90.80% respectively. It has successful track record of erection, testing and commissioning of lignite based power plant at SLPP with Circulating Fluidised Bed Combustion (CFBC) technology.

Power Plants' Performance



The occurrence of lignite in Gujarat has opened new avenue for industrial development. Precise figures for the total estimated reserves of lignite in Gujarat are not available but latest investigations suggest about 700 million metric tons (MMT), which may be revised upwards to as much as 2000 MMT with future explorations. The present annual production is around 3-4 MMT, the bulk of which comes from Kutch, followed by a small production from South Gujarat. Currently, it has been estimated that lignite occurs in about 1200 sq.km area in Kutch, about 1000 sq. km in Saurashtra and 800 sq. km. in South Gujarat.

Kutch has lignite deposits of the order of 210 MMT occurring chiefly at Panandhro, Akrimota, Umarsar, Mata-no-Madh-Lefri and Lakhpat-Dhedhadi in Lakhpat Taluka. Kutch lignite is favourable for utilisation in power generation because of its high calorific value and low moisture content.

## Proposed Lignite Mining Projects In Gujarat

Due to its location and the distance from the various coalfields of the country, Gujarat is not getting adequate supply of coal for its industries. Also the landed cost of coal makes its use uneconomic for industrial use. Under such circumstances, lignite has contributed significantly towards the growth of industries and the power sector in Gujarat.

Lignite is consumed by industries, such as textile manufacture & processing, chemicals, roofing tiles, cement, bricks, power generation, etc. The Gujarat State Electricity Board has recently established & commissioned lignite based 2X70 MW Thermal Power Station at Panandhro in Kutch district and is consuming about 1.2 MMT of lignite annually. Based on the success of this power plant, the State Government proposes to establish three more lignite based power stations of 250 MW each in Kutch, Surat and Bhavnagar and also to reserve the Panandhro and Akrimota Lignite deposits for power generation only. Under the circumstances, it has become necessary to develop other deposits in the state to meet the increasing lignite demand of other industries.

## Robust demand scenario in Gujarat with added Government Support

Gujarat state continues to be power deficit despite substantial increase in the generating capacity of power in the state. The state despite being one of the more progressive states faces almost double the power shortage than the national average. Also the peak deficit in the state has reached an all time high of 25%. While the current electricity demand in Gujarat is of the order of 9500 MW, the maximum demand catered is of the order of 7700-8000 MW.

Gujarat is economically one of the most prosperous and industrialized states of India. The per capita income of Gujarat is higher than India's average per capita income and is the highest among comparable states in size and population. In addition, the per capita consumption of electricity in Gujarat is nearly 1,175 units, much more than the national average of 590 units. The state was ranked second in power sector rating carried out by ICRA and CRISIL (India's leading credit rating agencies) in 2007 on parameters like power generation, transmission and distribution capabilities, financial risk and commercial viability of investments.

GIPCL has been accorded "Panchratna" status by the government of Gujarat. The company enjoys regular support of the state government in the operations and management. It has been appointed by the state government as a nodal agency for setting up Lignite based Power Projects in South Gujarat and has signed a Memorandum of Understanding for commissioning power plant with an installed capacity of 2,000 MW capacity.

This presents an opportunity for existing power producers to cater to the deficit by way of adding new capacities and improving efficiencies at the existing plants. The state already has rich reserves of natural gas and lignite, which shall aid capacity expansion using these fuels. Considering that GIPCL is one of the major players in the sector and the proposed expansion of Surat power plant, company is estimated to benefit from the increased investments in industrial expansion in the state in the long-term, increasing its revenues & profits substantially.

## Power Supply Position in Gujarat

State Region	Jul-07				April 2007 - July 2007			
	Requirement	Availability	Surplus	Deficit	Requirement	Availability	Surplus	Deficit
	(MU)	(MU)	(MU)	(%)	(MU)	(MU)	(MU)	(%)
Gujarat	4,457	4,079	-378	-8.5	21,727	18,773	-2,954	-13.6
Western Region	16,917	15,520	-1,397	-8.3	77,752	66,557	-11,195	-14.4

## Power Sector on the Move

11th FYP to add 67.68 GW power generation capacity

Demand for electric power transmission services is largely dependent on levels of electric power demand, and on the ability of the electric power generation and distribution sectors to service that demand. The Central Government has announced its National Electricity Policy, which aims at accelerating the development of the power sector through the generation of additional power, in order to provide for adequate power to all households. All these initiatives are going to provide momentum to the company.

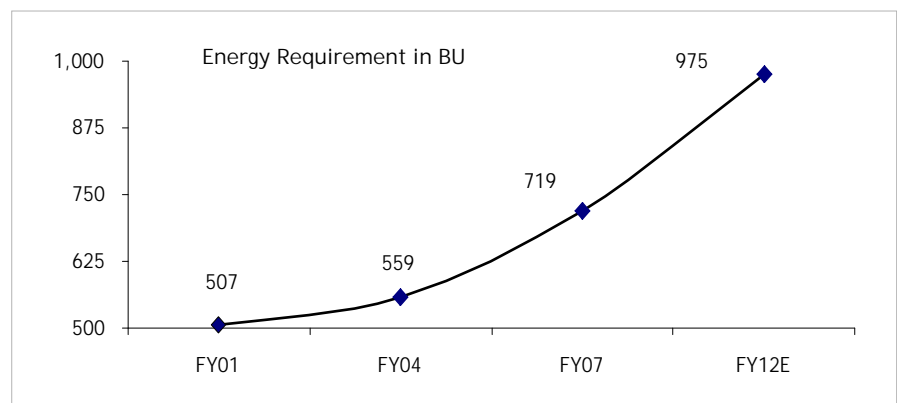
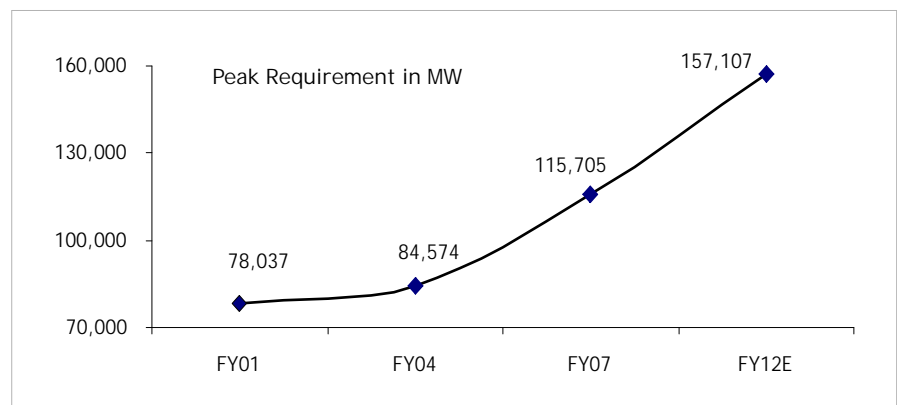
Actual power supply position (Mn units)

FY	Requirement	Availability	Deficit	Deficit (%)
2006	631,024	578,511	-52,513	-8.32
2005	591,373	548,115	-43,258	-7.31
2004	559,264	519,398	-39,866	-7.13
2003	545,983	497,890	-40,093	-8.81
2002	522,537	483,350	-39,187	-7.50

Source: - Ministry of Power

The 16th Electric Power Survey carried out by the Central Electricity Authority has projected a peak demand and energy requirement by the end of 11th five-year plan (2007-2012) at 157,107 MW and 975,222 MW respectively. In order to provide power on demand to all consumers by 2012, the GOI plans to add around 102,006 MW of additional capacities during the 10th and 11th Five Year plan periods. As per ministry of power, all India installed capacity of electric power generating stations was 132,110 MW as on April 30, 2007.

Huge Capacity Expansions through FY07-FY12



## Power Sector at a glance

Sector	Installed Capacity (MW)	(%)
State Sector	69,657	52.7
Central Sector	45,341	34.4
Private Sector	17,113	12.9
Total	132,110	100

Source: - Ministry of Power, Company; Note: As of April 30, 2007

## Total Installed Capacity

Fuel	MW	(%)
Total Thermal	86,935.84	64.5
Coal	71,932.38	53.4
Gas	13,801.71	10.2
Oil	1,201.75	0.9
Hydro	33,775.76	24.8
Nuclear	4,120.00	3.1
Renewable	10,175.03	7.6
Total	1,35,006.63	100

Source : Industry

Around 54% of this capacity is coal based, around 10% is gas based, 26% hydro based, a little below 6% constitute renewable sources, around 3% is nuclear and 1% diesel based. In the last few years, there has been a rise in power plants based on renewable energy. The current installed capacity is around 7,761MW of total utility-based capacity. With the advantages of hydropower coming up coupled with rising fuel prices there has been a rise in the hydro power plants as well. The current installed capacity, at around 34,654MW, exploits only about one-fourth of the 150,000MW hydro potential. An initiative was announced in 2003 to add around 50,000MW in hydro capacity by 2017.

Plant load factor (PLF) of power generating plants has improved over the last 10 years. In 2006-07, PLF was at around 76.8% compared to 60% in 1994-95. The last few years have also seen a lot of focus on power transmission and distribution. Inter-regional transmission capacity has jumped to 13,700MW. However, the Eleventh Plan initiates an addition of around 37,000MW capacities by 2012. The Accelerated Power Development & Reform Programme (APDRP) and other launching exercises in many states have helped create focused companies in the power transmission and distribution space. These platforms have helped reduce the shortfall in the T&D sector that was running in losses. After initiation of the programme, there has been a rise in line length, transformer capacity, use of IT-based systems and installation of electronic meters.

Regulatory Authorities  
to be setup by  
the government in 25 states

The government has set up Regulatory authorities in 25 states who are trying to make a difference to the Indian power sector. The Regulators are applying commercial principles to monitor the performance of state-owned power companies. Nonetheless, the biggest problem in the powersector is the aggregate technical and commercial (AT&C) losses. Around 38% of the generated power was lost in 2003-04 and is estimated to be around 35% in 2006-07.

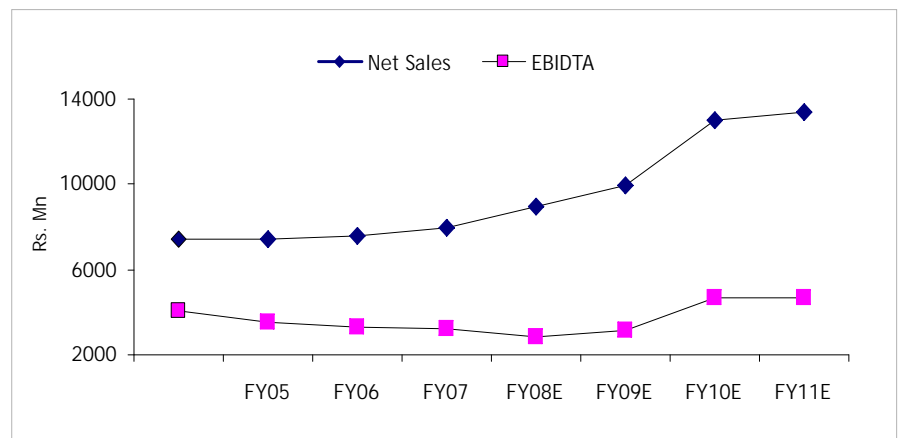
To plug the demand-supply  
gap in the coming years, India  
had to generate an incremental  
10,000MW capacity per year

As per estimates, India has to generate an incremental 10,000 MW capacity per year for the next 10 years to plug the demand supply gap. Apart from the generation initiative, focus will be also on improving the T&D versus generation investment ratio, from the abysmal 0.3 currently, to a global benchmark of 1:1. However, based on our interaction with power companies, we expect this to be very time consuming, unless political interference is reduced. Rural electrification continues to get a boost in each passing budget. Though the track record of execution of such reforms is appalling, the power sector is slowly but surely set for a change, especially after the ratification of the Electricity Act of 2003.

The performance of GIPCL up to FY07 was affected due to the temporary factors and not on account of any inherent weakness. This had a direct impact on the cash flows of the company. Net Revenues of GIPCL increased merely at a CAGR of 2.2% during FY05 to FY07 on account of unavailability of gas and also a major shutdown of the 160 MW power plant.

However, after the planned expansions are ready for generation, we expect revenues to be around Rs. 8,887Mn, Rs. 9,879Mn, Rs. 12,893Mn and Rs. 13,248Mn in FY08E, FY09E, FY10E and FY11E respectively and hence we expect the net income from sale of electrical energy to grow at a CAGR of 10.5% over 4 years.

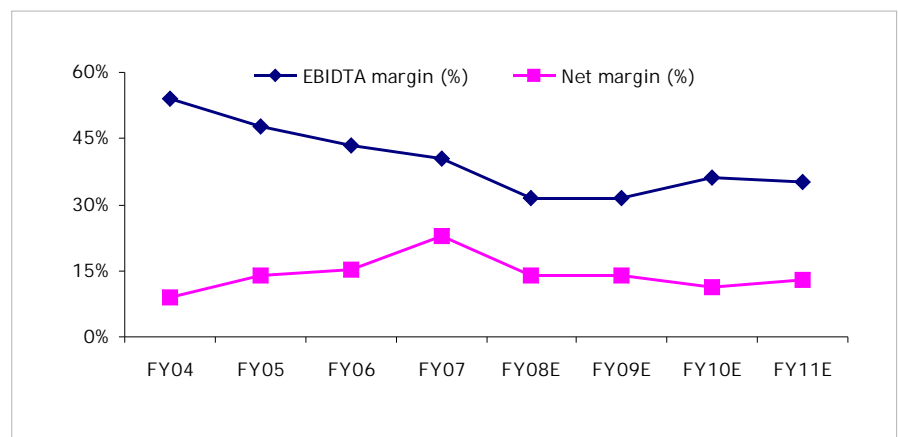
Revenues and EBIDTA to grow at a CAGR of 10.5% and 13.69% over 4 years



Source: - Company, PPFAS Research

EBIDTA margins of the company decreased in FY07 to 40.5% from 43.3% in FY06 on account of major plant shutdown at the Gas Based Power Plants, which takes place once in 5-6 years. Going forward, we expect the EBIDTA margins to be in the range of 31% and 36% during FY08 to FY11.

Net profit margins of the company have improved by in FY07 to 23% from 15.2% in FY06 on account of Other Income rising by 104%. Going forward, we expect the net profit margins to be between 11% to 15% over FY08-FY11.



Source: - Company, PPFAS Research

\* Sales of Energy in FY07 includes Rs. 340Mn on account of Income Tax claim

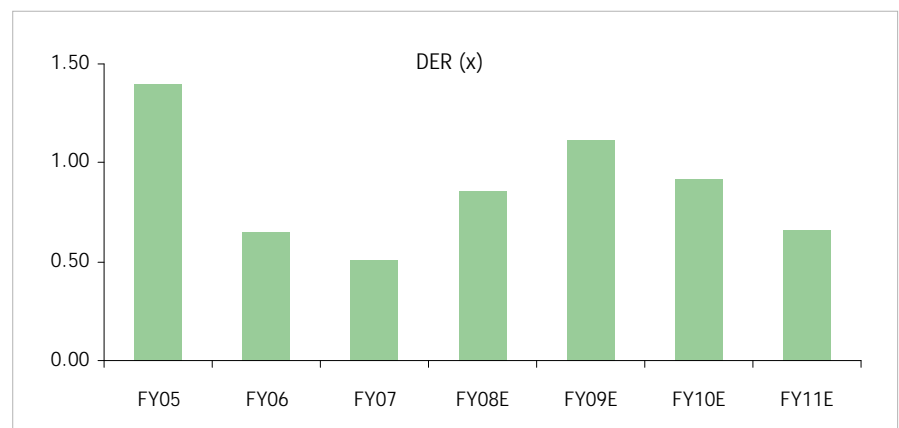
# We have adjusted this entry at the PBT levels which then gives a fair view of the company's Operating PBT

Earnings Statement								
Particulars	FY04	FY05	FY06	FY07*	FY08E	FY09E	FY10E	FY11E
Sales of Energy	7,449.1	7,406.9	7,491.2	7,933.8	8,887.2	9,879.5	12,893.3	13,247.8
PBT	1,163.8	1,658.0	1,724.9	1,815.0	1,516.0	1,618.5	1,714.7	1,978.1
Other Income	287.0	293.7	426.3	321.1	241.9	140.8	147.6	134.7

Earnings Statement - Adjusted								
Particulars	FY04	FY05	FY06	FY07#	FY08E	FY09E	FY10E	FY11E
Sales of Energy	7,449.1	7,406.9	7,491.2	7,593.8	8,887.2	9,879.5	12,893.3	13,247.8
PBT	1,163.8	1,658.0	1,724.9	1,475.0	1,516.0	1,618.5	1,714.7	1,978.1
Other Income	287.0	293.7	426.3	321.1	241.9	140.8	147.6	134.7
Operating PBT	876.9	1,364.3	1,298.7	1,153.9	1,274.0	1,477.7	1,567.1	1,843.4

### Debt-Equity Ratio

Debt to Equity of the company decreased to the levels of 0.5x in FY07 from 1.4x in FY05 because of strong financial performance for the last two years, which brought back strong cash flows in the company. We expect the debt to equity ratio to remain in the range of 0.9x to 0.7x on the basis of the expansion plans.



Source: - Company, PPFAS Research

### Dividend Policy

A stable dividend history inspires confidence in the management's intentions of rewarding shareholders. GIPCL has, however, not been a high dividend paying company with its payout ratio averaging 16.5% over the past 2 years. During FY07 the Board of Directors of the company had recommended a dividend of 20% on its equity capital and going forward, we expect that the absolute dividend & pay-out will increase, as the benefits from the new plant starts flowing in.

Earnings Statement								
YE March (Rs. Mn.)	Q308	Q208	Q-Q(%)	Q307	Y-Y(%)	9M08	9M07	Y-Y(%)
Net Revenues	2,428.5	1,925.3	26.1%	2,286.9	6.2%	6,505.2	6,235.9	4.3%
Cost of Materials	1,556.2	1,194.9	30.2%	1,357.8	14.6%	4,045.8	3,378.2	19.8%
Gross Profit	872.3	730.4	19.4%	929.1	-6.1%	2,459.4	2,857.7	-13.9%
Staff Costs	65.9	54.0	22.0%	49.2	33.9%	171.3	132.2	29.6%
Other Expenses	145.6	143.5	1.5%	134.1	8.6%	388.9	415.1	-6.3%
Total Expenditure	211.5	197.5	7.1%	183.3	15.4%	560.2	547.3	2.4%
Operating Profit	660.8	532.9	24.0%	745.8	-11.4%	1,899.2	2,310.4	-17.8%
OPM (%)	27.21%	27.68%	-1.7%	32.61%	-16.6%	29.20%	37.05%	-21.2%
Other Income	57.4	74.0	-22.4%	83.3	-31.1%	203.5	285.8	-28.8%
EBITDA	718.2	606.9	18.3%	829.1	-13.4%	2,102.7	2,596.2	-19.0%
Depreciation	222.4	220.2	1.0%	222.0	0.2%	662.3	676.8	-2.1%
EBIT	495.8	386.7	28.2%	607.1	-18.3%	1,440.4	1,919.4	-25.0%
Interest	87.6	105.0	-16.6%	141.3	-38.0%	291.6	368.7	-20.9%
PBT	408.2	281.7	44.9%	465.8	-12.4%	1,148.8	1,550.7	-25.9%
Tax	37.0	71.1	-48.0%	78.9	-53.1%	189.3	242.7	-22.0%
PAT	371.2	210.6	76.3%	386.9	-4.1%	959.5	1,308.0	-26.6%
Equity Capital	1,512.5	1,512.5	0.0%	1,512.5	0.0%	1,512.5	1,512.5	0.0%
EPS	0.5	0.3	76.3%	0.5	-4.1%	1.3	1.7	-26.6%
Ratio Analysis								
Profitability								
YE March (Rs. Mn.)	Q308	Q208	Q-Q(bps)	Q307	Y-Y(bps)	9M08	9M07	Y-Y(bps)
OPM (%)	27.2%	27.7%	(46.9)	32.6%	(540.2)	29.2%	37.0%	(785.5)
EBITDA (%)	29.6%	31.5%	(194.9)	36.3%	(668.1)	32.3%	41.6%	(931.0)
EBIT (%)	20.4%	20.1%	33.1	26.5%	(613.1)	22.1%	30.8%	(863.8)
PAT (%)	15.3%	10.9%	434.7	16.9%	(163.3)	14.7%	21.0%	(622.6)
Operational Parameters								
YE March (Rs. Mn.)	Q308	Q208	Q-Q(bps)	Q307	Y-Y(bps)	9M08	9M07	Y-Y(bps)
RM Consumed	64.1%	62.1%	201.8	59.4%	470.8	62.2%	54.2%	802.0
Staff Cost	2.7%	2.8%	(9.1)	2.2%	56.2	2.6%	2.1%	51.3
Other Expenditure	6.0%	7.5%	(145.8)	5.9%	13.2	6.0%	6.7%	(67.8)
Effective Tax Rate	9.1%	25.2%	(1,617.5)	16.9%	(787.4)	16.5%	15.7%	82.7

For the quarter ended Dec 31, 2007 GIPCL has posted 6.19% growth in net sales to Rs. 2,428.5Mn as compared to Rs. 1,925.3Mn. The generation of power during the quarter has increased by 5% due to higher PLF of Surat lignite power plant and Baroda station-II. Total Income has increased from Rs. 2,370.2 for the quarter ended Dec 31, 2006 to Rs. 2485.9Mn.

As a percentage of sales raw material cost, staff cost & other expenses has increased to 64%, 2.7% and 6%. Thus the operating profit margin has declined to 32.6% from 39.5%. Due to fall in margins, operating profit has declined by 11% to Rs. 660.8Mn.

Net Profit for the company declined by 4.06% from Rs. 386.9Mn in Q3FY07 to Rs. 371.2Mn in Q3FY08. This was mainly due to rise in fuel cost & staff costs as compared to the previous year. GIPCL carries out a major shut down every 5 years at the Gas based power plant, thereby affecting the top & bottom line margins.

The company's tariffs/ return on equity (RoE) is determined following mutual discussions between the company and its customers, who also happen to be its promoters. This leads to conflict of interest, which will reflect in its RoE declining to 13% in FY08 from 16% in FY07, thereby impacting its profits. However going forward we expect this concern to get addressed as all new projects would be governed by GERC's new tariff regulation, which in turn would be guided by Central Electricity Regulatory Commission (CERC).

GIPCL will be funding its expansion plans with a DER of 75:25, wherein the debt portion is arranged at an average interest rate of 8.65%. This assumption of a large part of this debt and the consequent rise in interest costs is expected to marginally affect the company's profits during the year, with the PBT margins expected to decline marginally from 22.8% in FY07 to 17% in FY08.

We have also been cautious on our profitability estimates in the future, considering any setbacks on account of rise in fuel (gas) prices. These are, however, medium concerns and the margins are expected to stabilize in the long-term.

## Relative Valuations

Description (FY07)	P/E	P/BV	EPS	PBIDTM	PATM	ROCE	RONW
Company	(x)	(X)	(Rs.)	(%)	(%)	(%)	(%)
Guj. Inds. Power	10.4	1.4	9.8	40.8	23.0	14.9	18.2
Neyveli Lignite	35.3	2.9	4.4	64.8	26.9	9.6	6.9

Neyveli Lignite (NLC) is the only other company engaged in power generation using lignite but also in other businesses like Mining & Power Consultancy which reflects in its higher operating parameters like, margins & return ratios.

## Plant Load Factor:

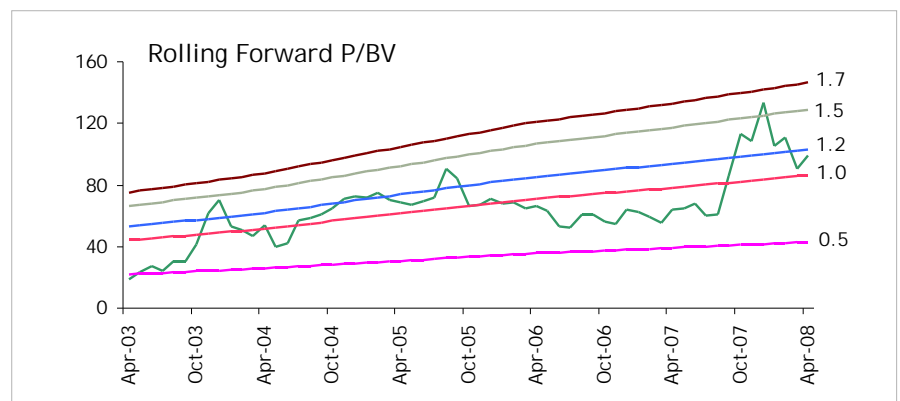
GIPCL's plant load factor has been rising steadily as compared to its peers. Against the targeted PLF of 88-90%, the company has achieved an average PLF of 85.1% in FY08 as compared to 81% in FY07.

Year	GIPCL	Neyveli Lignite
2004-05	84	70
2005-06	86	69
2006-07	81	76
2007-08	85	79

## P/BV Valuations

We have valued GIPCL at 1.5x its FY10E book value of Rs. 93.2, which yields a fair value of Rs. 140 per share.

The scrip has been trading in the range of 1 to 1.7x



### Replacement Cost Valuation

We have further verified our valuation by taking into account the replacement cost of the current generation capacity at current prices. We have assumed a capital cost of Rs. 40Mn & Rs. 48Mn per MW for the Gas based & Lignite based power plants respectively. Adjusting for the net debt in FY10, the replacement cost yields a fair value of Rs. 155 per share.

Power Plant	Fuel	Capacity (MW)	Expansion Completion	Capex/MW (Rs. Mn)	Value (Rs. Mn)
Station I	Gas	145		40.0	5,800.0
Station II	Gas	160		40.0	6,400.0
SLPP I	Lignite	250		48.0	12,000.0
SLPP II	Lignite	250	Mar'09	48.0	12,000.0
Replacement Cost (FY10)					36,200.0
FY10 net debt (Rs. Mn)					12,738.2
Value of Equity					23,461.8
No. of Shares (Rs. Mn)					151.3
Fair Value Per Share					155.1
Less: Discount @ 10%					15.5
Target Price Per Share					139.6

### Outlook

Going forward, we expect the profitability of the company to increase on account of improved realizations, capacity expansion plans, which will augment the revenues by higher plant, load factor and reduced interest costs. The top and bottom line of the company is expected to increase at a CAGR of 10.5% and 8.32% respectively, over the next 4 years. We expect the company to post good numbers in the subsequent quarters of the fiscal helped by a higher PLF and lower interest outgo. GEB's improving financials would also help the company in improving its visibility and strengthening the balance sheet.

The Power Generation & Distribution Sector is trading at a P/E of 15.21x. On a P/BV basis the company is trading at discount to its peers. Considering the stupendous growth prospects of the company, we believe that GIPCL commands good valuation.

At CMP of Rs. 96, the scrip trades at P/E of 11.7x FY08E, 10.6x FY09E & 9.8x FY10E earnings of Rs 8.22, Rs 9.10 & Rs 9.81 respectively. On P/BV basis it trades at 1.24x, 1.12x & 1.03x FY08E, FY09E & FY10E respectively. We recommend "BUY" based on our average of P/BV and Replacement Cost calculations with a price objective of Rs. 140 (46% upside), at which the scrip would trade at 1.5x FY10E P/BV.

Earnings Statement								
Particulars (Rs Mn)	FY04	FY05	FY06	FY07	FY08E	FY09E	FY10E	FY11E
Sales of Energy	7,449.1	7,406.9	7,491.2	7,933.8	8,887.2	9,879.5	12,893.3	13,247.8
- Growth (%)		-0.6%	1.1%	5.9%	12.0%	11.2%	30.5%	2.7%
Incentives	4.9	39.9	74.7	22.1	64.6	93.3	98.9	115.9
Total Revenues	7,454.0	7,446.7	7,565.9	7,955.8	8,951.8	9,972.8	12,992.2	13,363.8
Total Expenditure	3,701.2	4,189.3	4,714.0	5,051.6	6,386.5	6,987.8	8,450.6	8,809.1
Operating Profit	3,752.8	3,257.4	2,852.0	2,904.2	2,565.3	2,985.0	4,541.6	4,554.7
Other Income	287.0	293.7	426.3	321.1	241.9	140.8	147.6	134.7
EBITDA	4,039.7	3,551.1	3,278.2	3,225.3	2,807.2	3,125.8	4,689.2	4,689.4
Depreciation	1,009.8	943.5	913.8	898.5	901.5	1,038.4	1,686.7	1,693.5
EBIT	3,029.9	2,607.6	2,364.4	2,326.8	1,905.7	2,087.4	3,002.5	2,995.9
Interest	1,866.1	949.5	639.5	511.8	389.8	468.9	1,287.8	1,017.8
PBT	1,163.8	1,658.0	1,724.9	1,815.0	1,516.0	1,618.5	1,714.7	1,978.1
Tax	492.2	621.3	576.8	(14.1)	272.9	242.8	231.5	267.0
PAT Before EI	671.7	1,036.7	1,148.1	1,829.1	1,243.1	1,375.7	1,483.3	1,711.1
- Growth (%)		54.3%	10.7%	59.3%	-32.0%	10.7%	7.8%	15.4%
Extra-ordinary Items	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reported PAT	671.7	1,036.7	1,148.1	1,829.1	1,243.1	1,375.7	1,483.3	1,711.1
Ratio Analysis								
Particulars	FY04	FY05	FY06	FY07	FY08E	FY09E	FY10E	FY11E
OPM (%)	50.3%	43.7%	37.7%	36.5%	28.7%	29.9%	35.0%	34.1%
EBITDA (%)	54.2%	47.7%	43.3%	40.5%	31.4%	31.3%	36.1%	35.1%
PBIT (%)	40.6%	35.0%	31.3%	29.2%	21.3%	20.9%	23.1%	22.4%
PAT (%)	9.0%	13.9%	15.2%	23.0%	13.9%	13.8%	11.4%	12.8%
Interest Cover (x)	1.6	2.7	3.7	4.5	4.9	4.5	2.3	2.9
EPS (Rs.)	6.1	9.4	7.6	12.1	8.2	9.1	9.8	11.3
P/E (x)	15.9	10.3	12.7	8.0	11.8	10.6	9.8	8.5
P/BV (x)	2.2	1.9	1.6	1.4	1.2	1.1	1.0	1.0
BVPS (Rs.)	43.6	50.8	60.7	70.5	77.5	85.5	93.2	101.6
Market Cap (Rs. Mn.)	10,704.2	10,704.2	14,610.9	14,610.9	14,610.9	14,610.9	14,610.9	14,610.9
M Cap/Sales (x)	1.4	1.4	1.9	1.8	1.6	1.5	1.1	1.1
EV (Rs. Mn.)	20,834.0	17,143.4	18,235.7	17,349.7	23,101.2	27,400.0	25,991.9	23,212.8
EV/EBITDA (x)	5.2	4.8	5.6	5.4	8.2	8.8	5.5	5.0
EV/Sales (x)	2.8	2.3	2.4	2.2	2.6	2.7	2.0	1.7
ROCE (%)	17.4%	19.3%	15.6%	14.5%	8.7%	7.6%	11.1%	11.7%
RONW (%)	13.9%	18.4%	12.5%	17.2%	10.6%	10.6%	10.5%	11.1%
Debt/Equity Ratio (x)	2.6	1.4	0.7	0.5	0.9	1.1	0.9	0.7
Inventory T/o Days	41.1	39.8	41.5	37.2	39.7	39.6	39.7	39.7
Debtors T/o Days	124.8	53.4	55.2	52.3	54.6	54.5	54.6	54.5
Advances T/o Days	8.4	18.9	83.3	53.4	44.7	44.6	44.7	44.6
Creditors T/o Days	74.5	90.3	86.7	76.5	69.5	69.3	69.5	69.4
Working Cap T/o Days	93.0	12.3	103.3	107.3	59.7	61.5	55.1	57.1
Fixed Assets T/o (Gross)	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4
DPS (Rs.)	1.0	1.3	1.3	2.0	1.0	1.0	1.8	2.5
Dividend Payout (%)	16.5%	13.4%	16.5%	16.5%	12.2%	11.0%	17.8%	22.1%
Dividend Yield (%)	1.0%	1.3%	1.3%	2.1%	1.0%	1.0%	1.8%	2.6%

Balance Sheet								
Particulars (Rs Mn)	FY04	FY05	FY06	FY07	FY08E	FY09E	FY10E	FY11E
Equity Capital	1,108.1	1,108.1	1,512.5	1,512.5	1,512.5	1,512.5	1,512.5	1,512.5
Preference Shares	81.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reserves	3,643.5	4,516.8	7,795.0	9,276.9	10,343.1	11,541.8	12,715.4	13,984.1
Shareholders Funds	4,833.1	5,624.9	9,307.5	10,789.4	11,855.6	13,054.4	14,227.9	15,496.6
Borrowed Funds	12,598.9	7,874.9	6,013.0	5,427.2	10,055.1	14,429.3	12,877.6	10,177.6
Deferred Tax Liability	567.4	1,073.9	1,073.9	749.0	749.0	749.0	749.0	749.0
Total Liabilities	17,999.4	14,573.8	16,394.5	16,965.7	22,659.7	28,232.7	27,854.6	26,423.3
Fixed Assets	13,692.8	12,966.6	12,777.3	13,141.1	19,542.1	20,437.1	26,800.4	25,256.9
Investments	2,406.5	1,357.2	1,357.2	1,357.2	1,357.2	1,357.2	1,357.2	1,357.2
Current Assets								
Inventory	839.8	812.9	860.2	811.3	973.9	1,082.7	1,413.0	1,451.8
Sundry Debtors	2,548.1	1,089.8	1,145.0	1,139.2	1,339.2	1,488.7	1,942.8	1,996.2
Loans & Advances	171.2	386.6	1,726.0	1,164.3	1,095.7	1,218.0	1,589.6	1,633.3
Cash & Bank Balance	62.7	78.6	1,031.0	1,331.1	207.5	283.0	139.4	218.5
Current Liabilities								
Sundry Creditors	1,521.5	1,842.5	1,796.8	1,667.5	1,704.4	1,894.7	2,472.7	2,540.7
Provisions	200.1	275.5	824.5	438.6	448.3	498.4	650.4	668.3
Net Current Assets	1,900.2	250.0	2,140.8	2,339.8	1,463.6	1,679.3	1,961.6	2,090.8
Miscellaneous Expenditure	0.0	0.0	119.2	127.6	127.6	127.6	127.6	127.6
Total Assets	17,999.4	14,573.8	16,394.5	16,965.7	22,490.5	23,601.2	30,246.8	28,832.6
Cash Flow								
Particulars (Rs Mn)	FY04	FY05	FY06	FY07	FY08E	FY09E	FY10E	FY11E
Opening Cash & Bank	91.8	62.7	78.6	1,031.0	1,331.1	207.5	283.0	139.4
Profit After Tax	671.7	1,036.7	1,148.1	1,829.1	1,243.1	1,375.7	1,483.3	1,711.1
Invt Income	(287.0)	(293.7)	(426.3)	(321.1)	(241.9)	(140.8)	(147.6)	(134.7)
Interest Paid	1,866.1	949.5	639.5	511.8	389.8	468.9	1,287.8	1,017.8
Miscellaneous Exp W/Off	0.0	0.0	(119.2)	(8.5)	0.0	0.0	0.0	0.0
Depreciation	1,009.8	943.5	913.8	898.5	901.5	1,038.4	1,686.7	1,693.5
Deferred Taxation	416.1	506.5	0.0	(324.9)	0.0	0.0	0.0	0.0
Others	(1,151.7)	1.1	2,778.0	10.2	0.0	0.0	0.0	0.0
Change in Working Cap	(645.4)	1,666.1	(938.4)	101.2	(247.4)	(140.3)	(425.9)	(50.1)
CF - Operating Activities	1,879.5	4,809.7	3,995.6	2,696.4	2,045.0	2,602.0	3,884.2	4,237.5
Change in Fixed Assets	(78.3)	(223.9)	(752.4)	(1,272.5)	(7,302.5)	(1,933.4)	(8,050.0)	(150.0)
Change in Investments	244.7	1,049.3	0.0	0.0	0.0	0.0	0.0	0.0
Investment Income	287.0	293.7	426.3	321.1	241.9	140.8	147.6	134.7
CF - Investing Activities	453.4	1,119.1	(326.2)	(951.4)	(7,060.6)	(1,792.5)	(7,902.4)	(15.3)
Increase in Equity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Change in Preference Cap	(167.8)	(81.5)	0.0	0.0	0.0	0.0	0.0	0.0
Changes in Borrowings	(203.2)	(4,724.0)	(1,861.9)	(585.8)	4,627.9	4,374.3	(1,551.7)	(2,700.0)
Interest Paid	(1,866.1)	(949.5)	(639.5)	(511.8)	(389.8)	(468.9)	(1,287.8)	(1,017.8)
Dividend Paid	(125.0)	(157.9)	(215.6)	(347.2)	(177.0)	(177.0)	(309.7)	(442.4)
CF - Financing Activities	(2,362.0)	(5,912.9)	(2,717.0)	(1,444.8)	4,061.1	3,728.4	(3,149.2)	(4,160.2)
Net Change in Cash	(29.1)	15.9	952.4	300.1	(954.5)	4,537.8	(7,167.4)	62.1
Closing Cash & Bank Bal	62.7	78.6	1,031.0	1,331.1	207.5	283.0	139.4	218.5

## What Lignite Is?



Lignite, often referred to as brown coal, or Rosebud coal combustible mineral formed over millions of years by the partial decomposition of plant material subject to increased pressure and temperature in an airless atmosphere. In simple terms, lignite is coal. It is the lowest rank of coal and used almost exclusively as fuel for steam-electric power generation. It has a high inherent moisture content, sometimes as high as 66 percent, and very high ash content compared with bituminous coal. It is also a heterogeneous mixture of compounds for which no single structural formula will suffice.

The heat content of lignite ranges from 10 to 20 MJ/kg (9 to 17 million Btu per short ton) on a moist, mineral-matter-free basis. The heat content of lignite consumed in the United States averages 13 million Btu/ton (15 MJ/kg), on the as-received basis (i.e., containing both inherent moisture and mineral matter). When reacted with quaternary amine, amine treated lignite (ATL) forms. ATL is used in drilling mud to reduce fluid loss.

Because of its low energy density, brown coal is inefficient to transport and is not traded extensively on the world market compared with higher coal grades. It is often burned in power stations constructed very close to any mines. Carbon dioxide emissions from brown coal fired plants are generally much higher than for comparable black coal plants. The continued operation of brown coal plants, particularly in combination with strip mining and in the absence of emissions-avoiding technology like carbon sequestration, is politically contentious.



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