

Visible scale-up; new Buy

14x scale-up + fuel/funding + 77% pre-sales + high ROE= Buy

We initiate coverage on Adani Power (APL) with a Buy rating given (1) a fourteen-fold scale-up in capacity by FY14E via an unregulated business model (no cap on ROE), and (2) visibility of 16x EPS over FY10E-12E led by 77% power pre-sold at attractive tariff and secured fuel/funding. Our thesis is backed by its competitive advantages of healthy tariffs, low cost and committed fuel supplies, as well as location advantage and balanced model. Our PO is Rs131, based on DCF valuation. We believe the stock is attractive at FY12E 35% ROE and 2.3x P/B.

Focused scale-up to 9.2GW (8.4GW equity a/c) by FY14E

APL aims to scale up power generation capacity to 9.2GW by FY14E vs 660MW in FY10E, thanks to large PPA contract wins such as Tiroda (2.5GW of 3.3GW), Kawai (1.2GW of 1.3GW) and Mundra (3.4GW of 4.6GW) – India's largest plant. These capacities should rank APL among the top five IPPs in India by FY12E.

Competitive advantages – coal, location and visible growth

APL has secured low-cost fuel via coal linkages (31% of capacity) and contracts with parent (33%). It has 86% of capacity located in the Western region, with the highest peak power deficit (19%) vs India (11.9%) in FY09. With its 1st unit started in October 2009, APL will have 5.3GW by FY12E. These competitive advantages and healthy pre-sales tariffs at ~Rs2.9 make APL the top margin (64% in FY13E) and ROE (35%) earner in our IPP universe despite mounting competition.

More projects, PPAs and risk mitigation since IPO

APL's project pipeline is now 14.9GW vs 9.9GW at its IPO (July09). It is set to win contracts to supply 2.4GW (26% of capacity) and its 1.32GW Mundra project is the world's 1st thermal plant eligible for CDM benefits. APL de-risked its coal mix by blending other coals, albeit at a higher cost. Potential upside - 5.9GW projects, captive coal mine or higher merchant prices on capex delays (recurring in India). Risks: Execution, financing, imported coal which exposes it to country, currency / freight risks, Chinese labor, denial of SEZ benefits, and fall in power rates.

Estimates (Mar)

(Rs)	2008A	2009A	2010E	2011E	2012E
Net Income (Adjusted - mn)	0	(50)	1,801	8,735	28,227
EPS	0	(0.027)	0.826	4.01	12.95
EPS Change (YoY)	NA	NA	NM	385.0%	223.1%
Dividend / Share	0	0	0	0	0
Free Cash Flow / Share	(39.91)	(24.88)	(45.26)	(47.62)	(33.66)

Valuation (Mar)

	2008A	2009A	2010E	2011E	2012E
P/E	NA	NM	119.24x	24.58x	7.61x
Dividend Yield	0%	0%	0%	0%	0%
EV / EBITDA*	NA	NM	103.75x	22.03x	6.17x
Free Cash Flow Yield*	-10.26%	-21.34%	-45.95%	-48.34%	-34.18%
Price/Book Value	16.68	9.42	3.67	3.19	2.25

* For full definitions of *iQmethod*SM measures, see page 41.

Bank of America
Merrill Lynch

Bharat Parekh >>

+91 22 6632 8656

Research Analyst
DSP Merrill Lynch (India)
bharat_parekh@ml.com

Stock Data

Price	Rs98.50
Price Objective	Rs131.00
Date Established	28-Jan-2010
Investment Opinion	C-1-9
Volatility Risk	HIGH
52-Week Range	Rs90.10-Rs112.90
Mrkt Val / Shares Out (mn)	US\$4,632 / 2,180.1
Average Daily Volume	2,007,941
BofAML Ticker / Exchange	XADPF / BSE
Bloomberg / Reuters	ADANI IN / ADAN.BO
ROE (2010E)	4.4%
Net Dbt to Eqty (Mar-2009A)	188.6%
Est. 5-Yr EPS / DPS Growth	47.7% / NA
Free Float	26.5%

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Refer to important disclosures on page 42 to 44. Analyst Certification on Page 40. Price Objective Basis/Risk on page 40.

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iQprofileSM Adani Power Ltd.

Key Income Statement Data (Mar)	2008A	2009A	2010E	2011E	2012E
(Rs Millions)					
Sales	0	0	5,037	27,281	82,652
Gross Profit	0	(55)	3,127	14,731	52,614
Sell General & Admin Expense	NA	NA	NA	NA	NA
Operating Profit	0	(55)	2,742	12,981	46,709
Net Interest & Other Income	0	0	(573)	(2,457)	(10,365)
Associates	NA	NA	NA	NA	NA
Pretax Income	0	(55)	2,170	10,524	36,344
Tax (expense) / Benefit	0	0	(369)	(1,789)	(6,505)
Net Income (Adjusted)	0	(50)	1,801	8,735	28,227
Average Fully Diluted Shares Outstanding	552	1,842	2,180	2,180	2,180

Key Cash Flow Statement Data

Net Income	0	(50)	1,801	8,735	28,227
Depreciation & Amortization	0	0	385	1,750	5,905
Change in Working Capital	2,598	(1,142)	(1,789)	(644)	47
Deferred Taxation Charge	NA	NA	NA	NA	NA
Other Adjustments, Net	0	(6)	0	0	1,611
Cash Flow from Operations	2,598	(1,198)	397	9,841	35,790
Capital Expenditure	(24,633)	(44,623)	(99,062)	(113,657)	(109,182)
(Acquisition) / Disposal of Investments	(532)	532	(408)	0	0
Other Cash Inflow / (Outflow)	0	0	0	0	0
Cash Flow from Investing	(25,166)	(44,091)	(99,471)	(113,657)	(109,182)
Shares Issue / (Repurchase)	13,913	8,526	33,935	0	0
Cost of Dividends Paid	NA	NA	NA	NA	NA
Cash Flow from Financing	23,992	48,953	122,037	89,950	80,259
Free Cash Flow	(22,035)	(45,821)	(98,665)	(103,816)	(73,392)
Net Debt	8,191	44,311	107,976	209,439	280,507
Change in Net Debt	8,687	36,121	63,664	101,464	71,068

Key Balance Sheet Data

Property, Plant & Equipment	24,634	69,257	167,934	279,841	383,118
Other Non-Current Assets	0	0	0	0	0
Trade Receivables	0	0	105	2,272	3,638
Cash & Equivalents	1,921	5,585	28,549	14,683	21,550
Other Current Assets	2,295	4,163	1,073	1,974	4,456
Total Assets	28,850	79,006	197,662	298,770	412,763
Long-Term Debt	10,112	49,897	136,214	223,615	302,057
Other Non-Current Liabilities	NA	NA	NA	NA	NA
Short-Term Debt	0	0	311	508	0
Other Current Liabilities	4,361	5,620	437	2,860	6,755
Total Liabilities	14,472	55,516	136,961	226,983	308,813
Total Equity	14,377	23,490	60,700	71,787	103,950
Total Equity & Liabilities	28,850	79,006	197,662	298,770	412,763

iQmethodSM - Bus Performance*

Return On Capital Employed	NA	-0.1%	1.7%	4.8%	11.2%
Return On Equity	0%	-0.3%	4.4%	13.9%	34.7%
Operating Margin	NA	NA	54.4%	47.6%	56.5%
EBITDA Margin	NA	NA	62.1%	54.0%	63.7%

iQmethodSM - Quality of Earnings*

Cash Realization Ratio	NA	NM	0.2x	1.1x	1.3x
Asset Replacement Ratio	NA	NA	NM	NM	18.5x
Tax Rate (Reported)	NA	NM	17.0%	17.0%	17.9%
Net Debt-to-Equity Ratio	57.0%	188.6%	177.9%	291.7%	269.8%
Interest Cover	NA	NA	4.8x	3.6x	4.1x

Key Metrics

* For full definitions of iQmethodSM measures, see page 41.

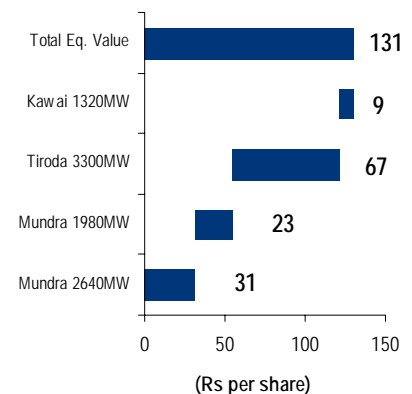
Company Description

Adani Power (a subsidiary of Adani Enterpr engaged in development and operation of a 4620MW Thermal Power Project (TPP) at M Gujarat. It is also developing a 3300MW TP Tiroda, Maharashtra (through its subs. Adai Maharashtra Ltd) and 1320MW TPP at Kaw (through its subs. Adani Power Rajasthan L has also plan to develop 3300MW as expar Mundra and 2640MW TPP at Dahej (throug subsidiary Adani Power Dahej Ltd).

Investment Thesis

Adani Power is a Buy rating given (1) a four fold scale-up in capacity by FY14E via an unregulated business model (no cap on Ro (2) visibility of 16x EPS over FY10-12E led power pre-sold at attractive tariff and securi fuel/funding. Our thesis is backed by its cor advantages of healthy tariffs, low cost & cor fuel supplies as well as location advantage balanced model.

Chart 1: Adani Power: SOTP Valuation



Source: BofAML Global Research

Stock Data

Price to Book Value 3.7x

Valuation

Table 1: Key Valuations Assumptions

Plant Load Factor (PLF) %	85.0%
Auxiliary Consumption %	7.0%
Heat Rate (kCal / kWh)	2100 - 2250
Gross Calorific value (kCal/kg)	3750 - 6300
In-Firm Power Tariff upto FY13E (Rs/kWh)	2.9 - 4.5
Merchant Tariff upto FY13E (Rs/kWh)	2.9 - 5

Source: BofAML Global Research

We have arrived at our sum-of-the-parts valuation for Adani Power (APL) based on the discounted cash flow (DCF) analysis of all its projects given the front-loaded nature of its cash flow. We have factored into our valuations higher interest rates (35bp), project risk (beta of 0.9-1.0) and execution risk (risk premium of 50-100bp). But we did not factor in any upside from carbon credits or option value of the future projects.

We have valued all of APL's SPVs using DCF as many of the SPVs are under construction/development and their near-term cash flows are not representative of their inherent asset value. With the structure of some of the projects leading to front-loaded returns and well-defined debt repayment schedules, we have chosen to value them on DCF on FCFE basis.

While APL's revenue are expected to start from FY10E (Mundra I and II), we note that all of its projects will begin to contribute to profits only four years from now, ie, by FY14E. We arrive at an equity value of Rs285bn (US\$6.2bn). The key assumptions of our SOTP valuation are detailed in Table 1.

Table 2: Adani Power: Sum-of-the-parts valuation

Project Name	Capacity (MW)	APL's stake (%)	Rf (%)	Beta (x)	ERP (%)	CoE (%)	Eq. Value (Rsmn)	APL's Attributable Value	
								Eq. Value (Rsmn)	Eq. Value (Rs/share)
Mundra TPP	4620						119,515	119,515	55
Mundra I, II & III	2640	100.0%	7.8%	0.9	6.0%	13.2%	68,293	68,293	31
Mundra IV	1980	100.0%	7.8%	1.0	6.5%	14.3%	51,223	51,223	23
Tiroda TPP	3300						196,039	145,069	67
Tiroda I, II & III	3300	74.0%	7.8%	0.9	6.5%	13.7%	196,039	145,069	67
Kawai TPP	1320						19,959	19,959	9
Kawai TPP	1320	100.0%	7.8%	0.9	6.5%	13.7%	19,959	19,959	9
Total	9240		7.8%	0.9	6.4%	13.7%	335,513	284,543	131

Source: BofAML Global Research

We have built in enough safety in our valuations

Considering the inherent risk in infrastructure project developments, we have kept our estimates conservative.

- **Tariff risk:** We have already assumed ~40% fall in merchant tariffs from FY13E, based on our demand-supply model for the Indian power sector.
- **Interest rate risk:** BofAML estimates a 50bp rise in interest rate. We have already assumed a 30bp increase in risk free rate.
- **Inherent project risk:** We have assumed beta of 0.9-1.0 for the projects vs regulated utility at 0.7-0.8 for risk of merchant power sales volatility.
- **Execution risk:** To compensate for increased project execution-related risk, we have assumed 3-6 months of delay and an additional equity risk premium of 50-100bp during the construction period.
- **Cost of equity:** We have used a different cost of equity for the different projects to reflect the unique risk, funding pattern, stage in execution and status of fuel/power sales risks in each project.

Chart 2: Utility Power Index



Source: BofAML Global Research

Adani Power vs comparables

Indian utility space: In search of the right value

After a quick boom-bust cycle in Indian utility stocks in the past two years, the stocks seem again in a fancy (see Chart 2).

In our view, Adani Power may not be comparable with listed Indian IPPs in terms of near-term multiples given its long-dated projects with major commissioning in FY12-13E.

If we compare APL's first full year of operation of ~50% of its capacity, ie, FY12E PAT, with the average P/E of regulated IPPs (NTPC, NLC, JP Power and GIPCL), APL appears inexpensive at our PO-based P/E of 10.1x FY12E vs the regulated IPPs' average of 19.1x. Comparing APL with listed merchant power players such as Reliance Power, Lanco and KSK, we also find that APL is at a 60% discount to FY12E P/E and an 8% discount on FY12E P/B.

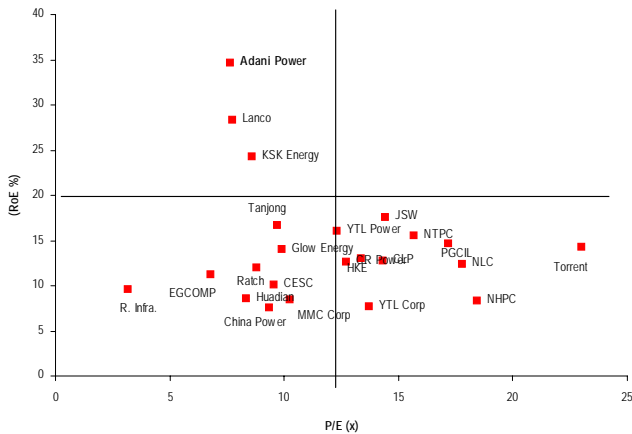
Further, many of the listed utilities are regulated and hence, carry a cap on returns (15.5% + incentives). APL, on the other hand, operates in a purely unregulated tariff regime and could therefore earn much higher returns and consequently deserves premium multiples once it demonstrates this in FY11-12E.

Table 3: Adani Power: P/E based on Rs131 PO

(Rs)	FY10E	FY11E	FY12E
Rec. EPS	0.8	4.0	12.9
PO	131	131	131
PER (x)	158.6	32.7	10.1

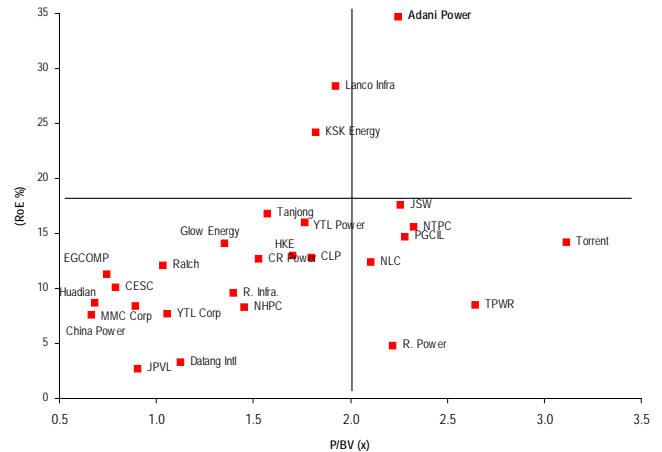
Source: BofAML Global Research

Chart 3: Regional FY12E: P/E vs RoE



Source: Bloomberg, BofAML Global Research

Chart 4: Regional FY12E: P/B vs RoE

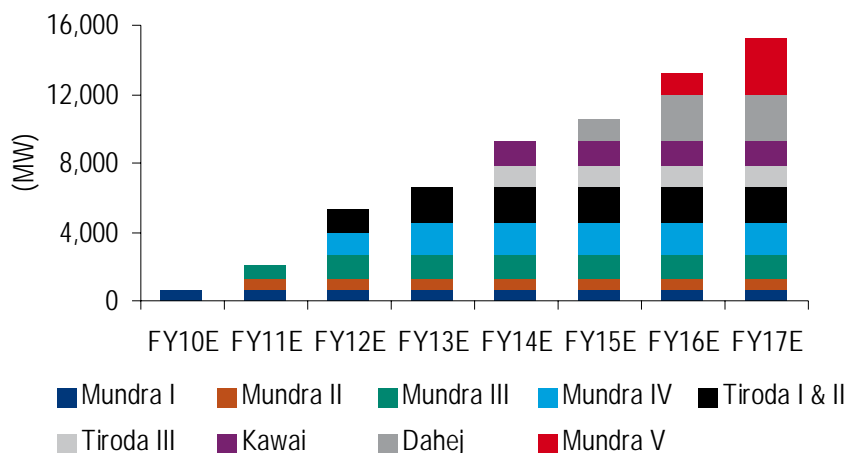


Source: Bloomberg, BofAML Global Research

Potential upside to valuations

Our estimates have not factored-in 5.9GW new projects of 14.9GW pipeline, which are under-development at Mundra V (3.3GW) and Dahej (2.6GW). These projects may be crystallized in FY11E and could come-up by FY15-17 time-frame.

Chart 5: APL: Likely Planned Capacity



Source: Company, BofAML Global Research

- Captive coal mine:** APL was allocated 170mn t of coal reserves at Lohara West block for its ensuing 1,980MW coal power project in Maharashtra by the Ministry of Coal. However, the Ministry of Environment and Forests (MoEF) had rescinded the allocation of the Lohara West and Extension coal blocks after concerns were raised that the implementation of this mining venture, given its proximity to the Tadoba-Andhari Tiger Reserve (TATR), was likely to cause irrecoverable damage to the rich biodiversity of the locale and also endanger the very existence of the tiger in the reserve. APL has reportedly sought the intervention of the Prime Minister's Office (PMO) to ensure allocation of the Sherband Baisi coal block, which it has identified to meet the feedstock requirements of its proposed 3.3 MW power plant at Tiroda, Maharashtra. If it is able to secure a coal block within a 300km radius of its Tiroda project, it could reduce the cost of coal by 30-40% vs coal linkage. We have not assumed any domestic captive coal block in our model.
- Higher merchant prices on capex delays:** Delay in capex is a common recurrence in India given the infrastructure bottlenecks. We have assumed only 54GW of the 78GW being planned in XI plan to commission by FY12E. Should there be a material delay in the commissioning schedule of these capacities or fuel supplies to new plants, the demand-supply mismatch may widen vis-à-vis our estimates. In turn, this may delay the forecast fall in merchant power prices and create upside risk to our estimates.

Carbon credits

- APL's 2x660MW Mundra III has become the first thermal project in the world to get registered as a CDM (Clean Development Mechanism) project by the UNFCCC (United Nations Framework Convention on Climate Change). As per the calculations made in line with the UNFCCC guideline under ACM013 methodology applicable to the project, Mundra III (2x660MW) will be eligible to generate 1.84mn CERs (Certified Emission Reductions) pa for 10 years from the first year of generation.
- APL intends to implement high-efficiency power generation using coal-fired super-critical technology at all its projects other than Mundra I and II.
- Due to the super-critical conditions, the efficiency of steam generation through super-critical technology is significantly higher than that from the conventional sub-critical technology. Higher steam generation efficiency and hence, higher overall cycle efficiency will lead to lower coal consumption for the generation of the same amount of electricity resulting in a reduction of greenhouse gas emissions into the atmosphere, which will contribute to the mitigation of global warming.
- Consequently, APL may be eligible for the CDM benefits and have applied to the MoEF for host country approval for Mundra III projects. We believe it is likely to apply the same for the rest as well.
- We have not accounted for this upside to our estimates and valuations for all projects ex-Mundra III, which has already been awarded 1.84mn CERs by the UNFCCC in January 2010.

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Table 4: Regional utilities: Valuation comparison

Company Name	BofA		Local	Market	EBITDA Margin			P/E (x)			EV/EBITDA (x)			P/BV (x)			RoE (%)			
	ML	ML			Cap	(%)	FY10E	FY11E	FY12E	FY10E	FY11E	FY12E	FY10E	FY11E	FY12E	FY10E	FY11E	FY12E	FY10E	FY11E
Ticker	Rating	Price	Currency	(US\$ mn)																
Indian Utility Comps																				
Merchant																				
Adani Power Ltd	XADPF	C-1-9	99	INR	4,675	62.1%	54.0%	63.7%	119.2	24.6	7.6	103.1	28.8	9.4	3.7	3.2	2.2	4.4	13.9	34.7
IndiaBulls Power			32	INR	1,400	NA	NA	NA	80.3	107.0	(160.5)	(252.1)	(200.5)	(149.5)	1.6	1.6	1.5	2.1	1.2	(0.9)
JSW Energy			107	INR	3,772	48.5%	NA	NA	15.6	23.7	14.4	22.7	NA	NA	3.0	2.7	2.3	13.5	13.2	17.6
KSK Energy			184	INR	1,475	61.0%	65.1%	63.6%	36.8	11.8	8.6	27.1	7.0	5.7	2.9	2.3	1.8	8.3	20.0	24.3
Lanco	LNIFF	C-1-7	46	INR	2,413	13.1%	22.5%	24.8%	24.1	10.4	7.7	16.8	7.6	6.1	3.4	2.6	1.9	17.2	28.2	28.4
Reliance Power			144	INR	7,453	-5.2%	50.7%	53.4%	69.3	59.1	46.2	NA	71.5	33.7	2.4	2.3	2.2	3.4	4.6	4.8
Jindal Power Ltd.			494	INR	9,912	85.3%	83.1%	79.0%	22.4	25.5	32.9	14.7	17.5	22.2	9.6	6.0	4.8	54.5	29.0	16.3
Jindal Steel & Power	XJDLF	C-3-7	650	INR	13,048	53.8%	52.0%	52.5%	16.1	15.9	15.6	11.5	12.6	13.3	6.5	4.9	4.4	48.6	35.3	29.9
Merchant IPP Avg.									52.5	37.4	19.6	36.9	26.5	15.4	3.8	3.0	2.4	14.8	15.7	21.0
Regulated IPP																				
Gujarat Inds	GUJIF	C-2-7	107	INR	348	34.2%	38.4%	NA	9.9	9.4	10.4	6.8	5.8	NA	1.2	1.1	1.1	12.9	12.4	NA
Jaiprakash Power	XJSHF	C-1-7	70	INR	3,176	91.7%	91.3%	94.9%	40.7	56.8	33.5	31.0	43.0	18.1	0.9	0.9	0.9	4.3	1.6	2.7
NTPC Ltd	NTHPF	C-3-7	214	INR	38,074	25.3%	26.2%	28.1%	18.4	16.8	15.6	16.1	14.1	12.2	2.8	2.5	2.3	15.9	15.9	15.6
Neyveli Lignite	NEYVF	C-2-7	150	INR	5,429	37.4%	42.6%	42.2%	23.8	19.2	17.8	19.7	12.6	11.2	2.5	2.3	2.1	10.9	12.5	12.4
NHPC			33	INR	8,730	85.4%	85.0%	81.3%	25.4	22.4	18.4	14.6	12.9	11.3	1.6	1.6	1.5	7.2	7.3	8.3
Regulated IPP Avg.									23.6	24.9	19.1	17.6	17.7	13.2	1.8	1.7	1.6	10.2	9.9	9.7
Integrated IPP																				
CESC Ltd	CSFEF	REVIEW	384	INR	1,035	21.7%	25.5%	24.7%	13.2	10.6	9.5	7.8	6.3	6.0	1.1	0.8	0.8	8.3	10.8	10.1
Reliance Infra.	RCTDF	C-1-7	1035	INR	5,031	10.9%	9.7%	10.2%	16.8	17.2	15.1	16.1	12.4	10.3	1.7	1.5	1.4	11.2	10.2	9.6
Tata Pwr. Co.	XTAWF	C-2-7	1323	INR	6,772	18.3%	19.5%	24.5%	35.0	31.2	36.2	25.8	22.3	22.1	3.0	2.8	2.6	9.1	9.3	8.5
Torrent Power			292	INR	2,978	26.2%	28.6%	33.2%	27.6	25.1	23.0	11.8	7.7	7.0	3.8	3.5	3.1	14.7	14.5	14.2
Integrated IPP Avg.									23.1	21.0	21.0	15.4	12.2	11.4	2.4	2.1	2.0	10.8	11.2	10.6
Transco																				
Power Grid	XPPWF		114	INR	10,342	83.0%	83.7%	84.5%	22.6	19.1	17.2	11.5	9.6	8.1	2.9	2.6	2.3	13.4	14.2	14.7
Transco Avg.									22.6	19.1	17.2	11.5	9.6	8.1	2.9	2.6	2.3	13.4	14.2	14.7
Indian Utility Avg.						44.0%	48.4%	50.6%	35.4	28.8	19.4	22.3	18.2	13.1	2.8	2.4	2.1	12.4	12.9	15.7
Regional Utility Comps																				
Hongkong / Chinese IPP																				
China Power	CPWIF	XRWW	2.0	CNY	1,302	21.8%	29.6%	29.7%	13.0	11.6	9.4	7.9	4.5	3.9	0.7	0.7	0.7	6.1	6.6	7.6
CR Power	CRPJF	C-2-8	15.2	HKD	9,189	31.4%	25.9%	27.7%	13.4	17.4	12.7	10.1	11.3	8.9	1.8	1.7	1.5	16.0	10.2	12.7
CLP Holdings	CLPHF	A-3-7	52.2	HKD	16,170	24.4%	24.1%	25.9%	16.5	14.9	14.3	11.3	10.4	10.0	1.9	1.9	1.8	12.0	12.8	12.8
Datang Intl	DIPGF	C-3-8	3.4	CNY	11,969	30.4%	27.4%	26.9%	21.9	54.7	34.8	9.1	10.0	9.3	1.1	1.1	1.1	5.6	2.1	3.3
HKE	HGKGF	A-3-7	43.1	HKD	11,843	81.0%	80.6%	80.8%	13.8	13.5	13.4	12.1	11.8	11.5	1.9	1.8	1.7	13.8	13.4	13.0
Huadian Power	HPIFF	XRWW	2.0	CNY	4,213	25.0%	23.1%	23.6%	9.3	9.5	8.3	11.2	11.0	9.6	0.7	0.7	0.7	8.7	7.9	8.7
Huaneng Power	HUNGF	C-3-8	4.4	CNY	11,330	24.5%	17.0%	18.2%	9.4	(43.2)	124.1	7.1	11.6	9.4	1.1	1.1	1.1	12.7	(2.8)	0.9
Chinese IPP Avg.									13.9	20.3	15.5	9.8	10.1	8.9	1.3	1.3	1.2	10.7	8.8	9.7
Malaysian IPP																				
YTL Power	YTLPF	XRWW	2.2	MYR	4,358	27.0%	27.0%	28.1%	13.7	13.1	12.3	10.3	10.0	9.6	2.1	1.9	1.8	17.1	16.8	16.0
YTL Corp Bhd	YTLCF	XRWW	7.4	MYR	4,093	31.8%	32.5%	34.4%	17.0	15.1	13.7	9.6	9.0	9.0	1.2	1.2	1.1	8.0	8.5	7.8
MMC Corp BHD	MCPNF	XRWW	2.3	MYR	2,089	36.2%	37.5%	37.1%	16.4	11.8	10.3	9.3	8.7	8.5	1.0	1.0	0.9	5.2	7.8	8.5
Tanjong Plc	TJOOF	XRWW	17.3	MYR	2,043	34.1%	33.9%	34.2%	10.1	9.8	9.7	7.2	7.2	7.2	1.9	1.7	1.6	18.9	18.0	16.8
Tenaga Nasional	TNABF	XRWW	8.0	MYR	10,183	27.0%	28.0%	NA	11.6	10.4	NA	6.0	5.6	NA	1.1	1.1	NA	10.0	10.3	NA
Malaysian IPP Avg.									13.8	12.0	11.5	8.5	8.1	8.6	1.5	1.4	1.3	11.8	12.3	12.2
Thailand IPP																				
EGCOMP	EYGGF	C-1-7	79	THB	1,247	54.8%	53.9%	52.5%	6.6	6.4	6.8	10.5	10.2	10.9	0.8	0.8	0.7	13.4	12.8	11.3
Glow Energy	GWEYF	C-1-7	31	THB	1,380	23.9%	26.0%	27.5%	12.8	10.7	9.9	10.2	9.9	10.1	1.5	1.4	1.4	11.9	13.8	14.1
Ratch	RCHPF	C-2-7	35	THB	1,510	20.4%	20.3%	20.4%	8.2	8.8	8.8	6.8	6.5	6.2	1.1	1.1	1.0	14.4	12.6	12.1
Thailand IPP Avg.									9.2	8.6	8.5	9.2	8.9	9.0	1.2	1.1	1.0	13.3	13.1	12.5
Korean IPP																				
Korea Elec Power	KEPLF	XRWW	39350	KRW	21,890	-5.4%	12.6%	16.8%	(8.3)	93.4	14.1	(27.6)	11.2	7.9	0.6	0.6	0.6	(6.9)	0.8	4.4
Regional IPP Avg.									12.9	14.8	12.7	9.3	9.3	8.8	1.3	1.2	1.2	11.6	11.0	10.6
Sensex			16,307						19.1	15.2	NA	11.6	9.6	NA	3.0	2.6	NA	17.0	18.4	NA

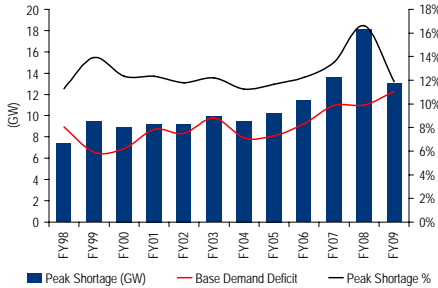
Source: BofAML Global Research, Bloomberg

Note: FY09E=CY08E and so on

Power: Opportunities and Challenges

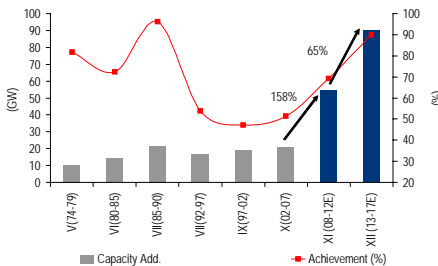
Core Arguments for IPPs: Selectively Ride The Sector Opening-up

Chart 6: India: Base and Peak Load Deficits



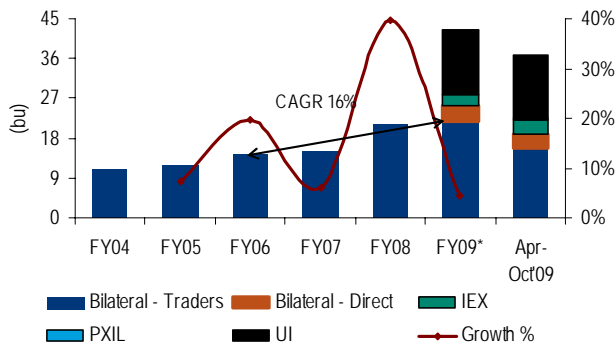
Source: Ministry of Power, BofAML Global Research

Chart 7: India: 5-yr Plan wise Power Capacity Creation & BofAMLe



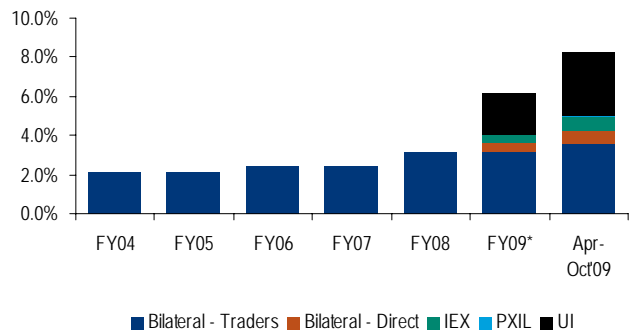
Source: Ministry of Power, BofAML Global Research

Chart 8: India: Electricity Traded & Growth



Source: Ministry of Power, BofAML Global Research

Chart 9: India: Electricity Traded % of Total Generation



Source: Ministry of Power, BofAML Global Research

Our top-down model forecasts 24% per capita consumption growth by FY12E driven by:

1. Pent-up demand (deficit of 11.1% on base demand and 11.9% on peak load in FY09) and
2. An expanding economy with Industrial growth at 8-9% pa

This demand should boost capacity addition at 158% in the XI Plan (FY08-12E) to reach over 187GW by FY12E (132GW in FY07).

However, bunching-up of capacity in FY12-13E could lead to fall in shortages from FY13E and consequently the power prices.

Overall, we see significant potential for growth for IPPs such as Adani Power as power market opens up and share of efficient and innovative private sector players with competitive advantage increases in new capacity add.

India's power deficits are well-known...

While India's power shortages (11.1% on base load and 11.9% on peak load) are well-known, they could worsen as the country plans to grow GDP at 6-8% pa over the next decade.

...and driving up merchant power volumes and prices

Deficits have given rise to the merchant power market, which has flourished to now account for ~8% of the overall power market (Chart 9).

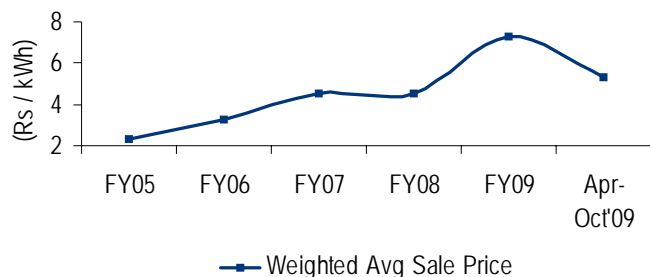
Table 5: Electricity Traded (mn units)

Price	FY05	FY06	FY07	FY08
Rs10.00 – 12.00				5
Rs8.00 – 10.00				557
Rs6.00 – 8.00			462	5,293
Rs4.00 – 6.00		648	11,140	4,094
Rs2.00 – 4.00	10,637	13,540	3,169	2,648
< Rs2.00	1,210		252	4,730
Total	11,847	14,188	15,023	17,325

Source: Ministry of Power

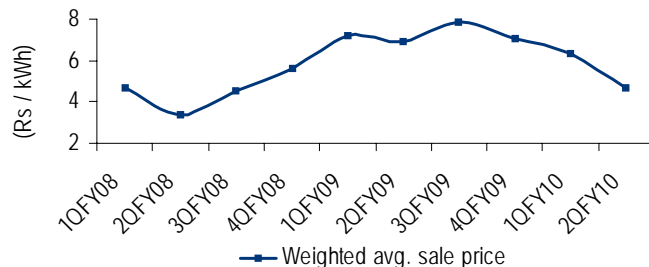
Merchant power prices in FY09 rose by 62%YoY to Rs7.31/kWh – a significant premium over PPA rates at Rs2-2.25/kWh – led by expanding shortage of power. This is also reflected in the increase in average price of power traded over FY05-08 (Table 5).

Chart 10: India: Weighted average sale price of power traded



Source: Ministry of Power, BofAML Global Research

Chart 11: India: Quarterly weighted avg. sale price of power traded



Source: Ministry of Power, BofAML Global Research

... Increased Capex To Take India's Capacity add to the next level ahead...

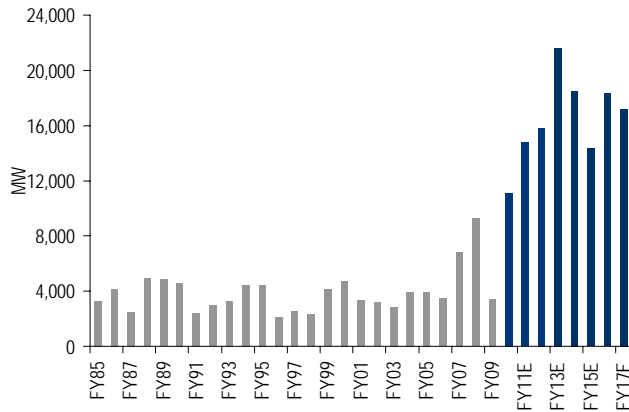
India Aiming For Discontinuity

India plans to triple its new power generation capacity addition over FY07-12E as part of its "power for all by 2012" plan to avoid an alarming rise in peak shortage (from 13% to 24% if growth continues at historical rates).

This will create potential for growth with new capacity add CAGR of 18% in XI plan (FY07-12E) vs almost flat X plan (FY03-07, see chart 12).

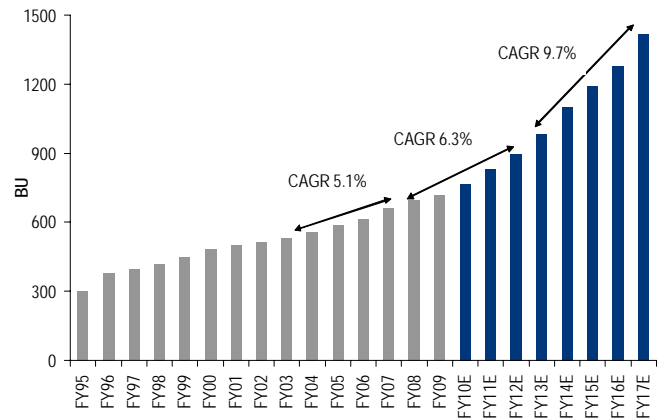
Consequently, India's power production is forecast to rise at a CAGR of 6.3% during FY08-12E vs 5% in over FY03-07 led by strong growth in new capacity add (Charts 12 & 13).

Chart 12: India: Capacity addition over the years



Source: Ministry of Power, BofAML Global Research

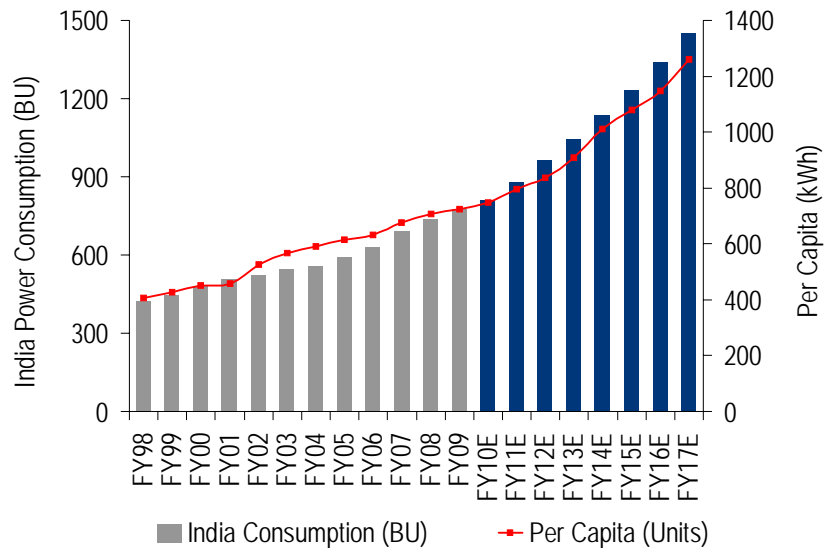
Chart 13: India: Generation over FY08 – FY17E



Source: Ministry of Power, BofAML Global Research

...supply will create its own demand, leading to per capita consumption rise to ~837kWh by FY12E...

Chart 14: India: Power consumption and per Capita consumption



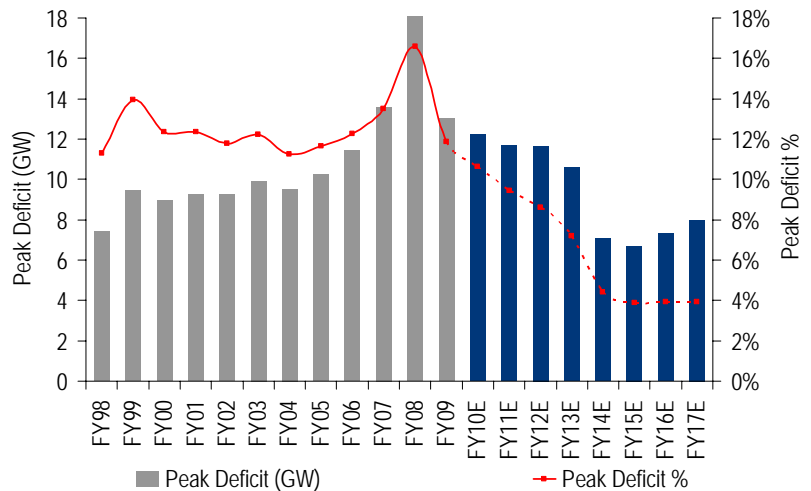
Source: Ministry of Power, BofAML Global Research

...however, bunching-up of capacity and likely reduction in T&D losses will lead to supply growth ahead of demand...

In sum: Shortage to reduce = Lower tariffs from FY13E

We conclude that, despite significant increase in capacity, burgeoning demand would lead to continued shortages till FY12E (Chart 15). However, with bunch-up of capacities over FY12-13E, we expect power deficits to fall and consequently, a decline in the current high merchant power tariffs by FY13E. **We have factored-in this scenario of fall in shortages into our model for APL estimating a 25-39%YoY drop in merchant tariffs to ~Rs2.9-3.26/kWh from FY13E and onwards.**

Chart 15: India: Power Shortages

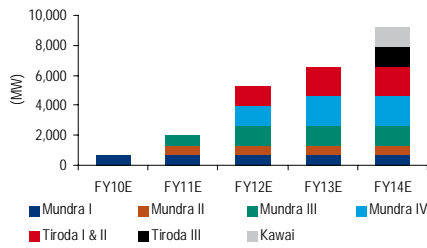


Source: Ministry of Power, BofAML Global Research

Issues to be tackled

- **Delay in open access/competition:** The key hindrance to further capacity additions/reforms is the delay in open access/competition in the last mile due to the resurgence of unions (supported by parties backing the central government). This makes private IPPs dependent on the state for power distribution/payment/ROE. Given that state utilities suffer from weak financials, they are vulnerable credit
- **Free power makes a comeback:** Free power to agriculture has re-emerged and is spreading with the state of Punjab joining Maharashtra and Andhra Pradesh (announced free power ahead of the elections) from September 2005. While the subsidy is borne by the state budget as opposed to utilities, this phenomenon remains a concern.
- **Fuel availability:** Despite India's large coal reserves (287bn t), the country continues to face shortage as mining capex lags utility capex. Unless the Ministry of Coal allots captive mining blocks to utilities, we expect the pressure on operating rates to continue, with Coal India dispatches falling short of requirements. Availability of gas has also been an issue.

Chart 16: APL: Expanding Power portfolio



Source: Company, BofAML Global Research

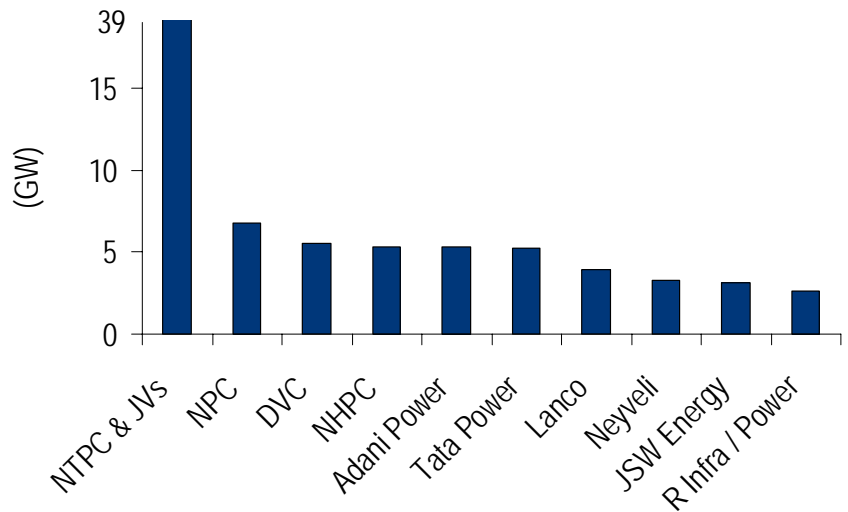
APL: An unregulated and focused IPP

We believe that Adani Power is pursuing a multi-pronged strategy to capitalize on the opportunities that will ensue with the opening up of the power generation sector in India.

Towards top 5/10 IPPs led by expansion in power portfolio

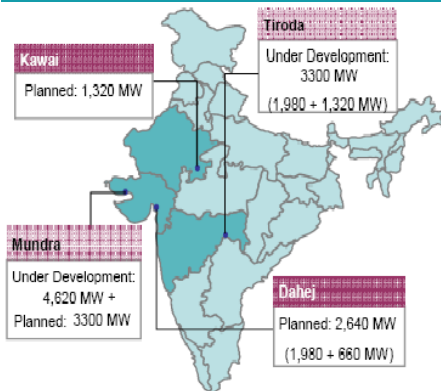
APL is leveraging its expertise as an infrastructure developer to bag power projects. It has recently added two new power projects to its portfolio to take the total to eight projects and installed capacity from 660MW in FY10E to 9.2GW by FY14E. We believe that commissioning of these capacities would make APL one of the top five IPPs in India after NTPC, NPC, DVC, and NHPC, as per BofAMLe. However, as many other IPPs such as Reliance Power, Tata etc. also commission their capacities, we estimate that APL would still be among top 10.

Chart 17: APL towards top 5 IPPs by FY12E



Source: BofAML Global Research

Chart 18: APL – Growing its geographical presence



Source: Company, BofAML Global Research

Expanding geographies into deficit zones

Up until mid-2007 all power projects by APL were located in the state of Gujarat. With new project wins, the company has consciously expanded its geographical presence and currently has projects in three states of India. Gujarat and Maharashtra, which are large industrial states, are also among the most power-deficient states – giving APL a ready market while saving on transmission costs.

Key competitive advantage

77% Capacities Pre-sold for 25 years @ healthy tariff

Sensing the unsustainability of high merchant tariffs in India, APL has pre-sold 77% of its 9.24GW capacity expansion at attractive tariffs to deliver 18-25% RoE. The company has secured 77% (7.14GW of 9.24GW) of its capacity as long-term PPAs with five customers to de-risk the client concentration. It has a 25-year levelized PPA rate of Rs2.62/kWh (2GW) in Gujarat during 2007, 1.32GW at an average levelized rate of Rs2.67/kWh and 1.20GW at a levelized rate of Rs3.27/kWh in Maharashtra, 1.2GW at a levelized rate of Rs3.24/kWh in Rajasthan and 1.42GW at levelized rate of Rs2.93/kWh in Haryana during 2008.

The benefits are as follows:

- Lends credibility to the entire expansion plan.
- De-risks the project and improves funding by banks.
- Makes it eligible for government support in terms of coal linkage/block and other permissions.
- Reduces pressure to fire-sale the balance 23% power should the merchant power market nosedive on bunching-up of new capacity addition during FY12-13E.

Table 6: APL: Pre-sold capacity

Project	Capacity (MW)	PPA (MW)	% of Capacity
Mundra TPP	4620	3424	74%
- Mundra I & II	1320	1000	76%
- Mundra III	1320	1000	76%
- Mundra IV	1980	1424	72%
Tiroda	3300	2520	76%
- Tiroda I & II	1980	1,320	67%
- Tiroda III	1320	1,200	91%
Kawai	1320	1,200	91%
Total	9240	7144	77%

Source: Company, BofAML Global Research

Table 7: APL: Pre-sold capacity by customers

Projects	Mundra			Tiroda I & Tiroda			Total
	Mundra I & II	III	Mundra IV	II	III	Kawai	
APL Capacity (MW)	1320	1320	1980	1980	1320	1320	9240
GUVNL	1000	1000					2000
UHBVNL & DHBVNL			1424				1424
MSEDCL				1320	1200		2520
RRVUNL						1200	1200
Contracted Capacity	1000	1000	1424	1320	1200	1200	7144
Pre-sold % of Total capacity	76%	76%	72%	67%	91%	91%	77%

Source: Company, BofAML Global Research

Table 8: APL: PPA tariff

Project	Customer	Date	MW	PPA Term	Levelised Tariff
Mundra I & II	GUVNL	06-Feb-2007	1000	25 years	2.89
Mundra III	GUVNL	02-Feb-2007	1000	25 years	2.35
Mundra IV	DHBVNL & UHBVNL	07-Aug-2008	1424	25 years	2.93
Tiroda I & II	MSEDCL	08-Sep-2008	1320	25 years	2.67
Tiroda III	MSEDCL	4Q FY10	1200	25 years	3.27
Kawai	RRVUNL	Jan-2010	1200	25 years	3.24
Total			7,144		2.91

Source: Company

Location provides APL with large ready market, premium realizations and transmission cost advantage

Location in large, power-deficit regions

The key to earning excess ROE in an unregulated business model such as APL's is to obtain higher tariffs. While India is deficit in power today, we expect the shortage to decline from FY12E as incremental supply growth outstrips demand. In this context we highlight two key strategies by APL, which we believe will help keep its ASP at a premium to the national average.

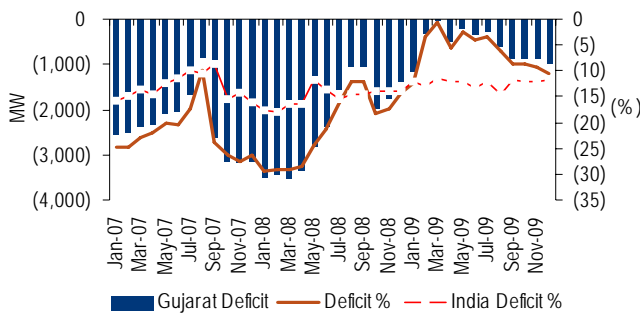
Focus on large, power-deficit regions

APL has 86% of its capacity in two of the top four power-consuming states of India, namely, Maharashtra (first) and Gujarat (fourth).

These states also happen to be the most power-deficit in India with Maharashtra topping the ranks with a deficit of 4.3GW or 33%, and Gujarat a close second at 2.9GW or 22% during FY09 (Charts 19 and 20).

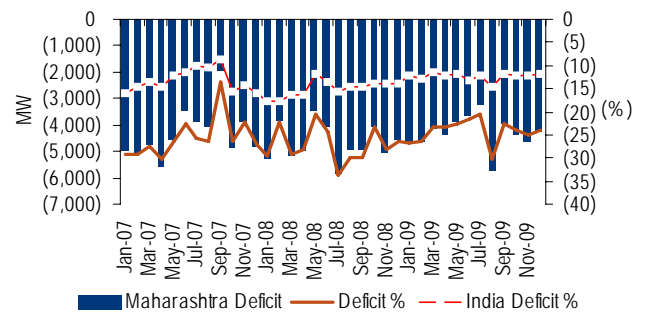
Against this background, we believe APL should be assured of premium realizations as it has demonstrated with its 25-year levelized PPA rate of Rs2.62/kWh (2GW) in Gujarat during 2007, 1.3GW at an average levelized rate of Rs2.67/kWh in Maharashtra, 1.2GW at levelized rate of Rs3.24/kWh in Rajasthan during 2010 and 1.4GW at levelized rate of Rs2.93/kWh in Haryana during 2008.

Chart 19: Gujarat Deficit



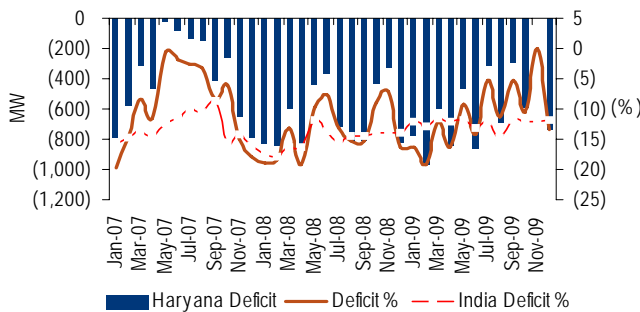
Source: Ministry of Power, BofAML Global Research

Chart 20: Maharashtra Deficit



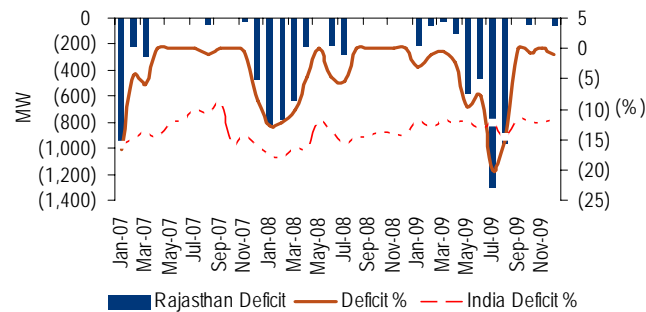
Source: Ministry of Power, BofAML Global Research

Chart 21: Haryana Deficit



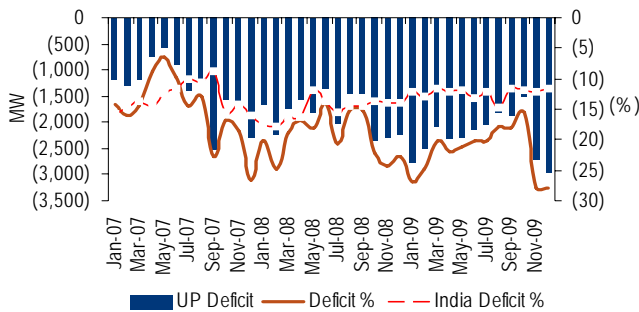
Source: Ministry of Power, BofAML Global Research

Chart 22: Rajasthan Deficit



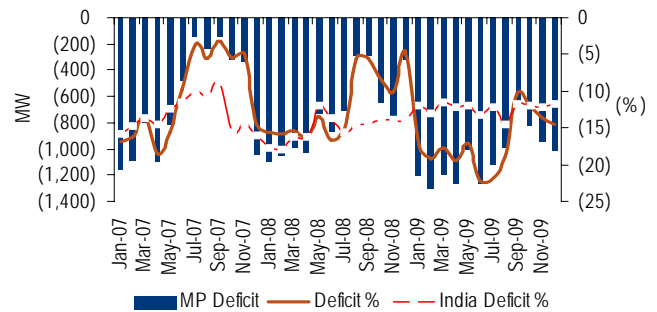
Source: Ministry of Power, BofAML Global Research

Chart 23: Uttar Pradesh Deficit



Source: Ministry of Power, BofAML Global Research

Chart 24: Madhya Pradesh Deficit



Source: Ministry of Power, BofAML Global Research

Diversified coal play: Low cost + Linkages + Competitive coal

APL's capacities are all coal-based. To emerge as a large and profitable IPP, it has not only secured huge coal reserves from multiple sources but also managed to get one of the most competitive rates for the fuel as discussed below.

Low-priced domestic coal linkage

- APL has secured supply of 6.4MTPA coal from Mahanadi Coal Linkage for its Mundra IV power project and 4.7MTPA coal from South Eastern Coalfields (2.5MTPA) and Western Coalfields (2.2MTPA) for its Tiroda I and II power projects.
- APL is planning to acquire more coal linkage/blocks to cut its dependence on imported coal. It intends to secure coal supplies for the balance capacity of its Mundra I, II and III projects in Gujarat, Tiroda I and II, 1320MW Tiroda III power projects at Maharashtra and 1320MW coal-based project at Kawai, Rajasthan.

Imported coal contracts

- PT Adani Global, a wholly-owned subsidiary of ADE (parent), is an exclusive contractor to mine coal pursuant to mining contracts with holders of long-term exploitation licenses for a 1,000ha concession in the Indonesian island of Bunyu. As per Pt. Mintek Dendriil, Indonesia, these coal mines collectively have estimated coal reserves of approximately 150MMT with an average GCV of 4,200 Kcal/kg. While the counterparties under the mining contracts for two of the three mines have procured long-term exploitation licenses to mine coal (for these two mines, an aggregate 1,000ha concession), the third license has not yet been granted to the counterparty under the third mining contract.
- APL has secured a 14.5mtpa imported coal contracts for 25 years from its parent (ADE) at an estimated weighted average cost of US\$36.3/tn CIF (Table 9) vs the current spot thermal coal price of US\$40-45/tn for the same grade. Well-priced imported coal contracts add to profitability and valuations.

Potential domestic coal mine – focus on 'Sherband Baisi' coal block

Captive coal block based power project will have the most competitive cost structure and hence, potential for excess ROE. APL had secured 170mn t of coal reserves at Lohara West block for its ensuing 1,980MW coal power project in Maharashtra. However, the Ministry of Environment and Forests (MoEF) had rescinded the allocation of the Lohara West and Extension coal blocks after concerns were raised that the implementation of this mining venture, given its

Table 9: Imported coal supply agreements

Power Project	Qty (mn T)	Est. Price	Est. Price
		CIF (US\$/MT) @	CIF (US\$/MT) @
Mundra I & II	4.0	37.0	29.9
Mundra III	4.0	36.0	29.1
Mundra IV	6.5	36.0	29.1
Total	14.5	36.3	29.3

Source: Company, BofAML Global Research

proximity to the Tadoba-Andhari Tiger Reserve (TATR), was likely to cause irrecoverable damage to the rich biodiversity of the locale and also endanger the very existence of the tiger in the reserve.

APL has reportedly sought the intervention of the Prime Minister's Office (PMO) to ensure allocation of the Sherband Baisi coal block, which it has identified to meet the feedstock requirements of its proposed 3.3 MW power plant at Tiroda, Maharashtra. If APL is able to secure coal block within a 300km radius of its Tiroda project, it could reduce the cost of coal by 30-40% vs coal linkage. We have assumed no captive coal block in our fuel mix as yet.

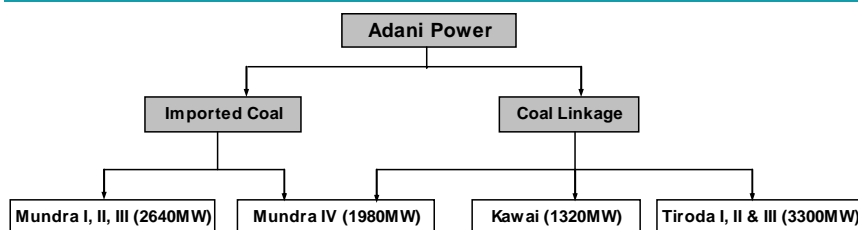
Table 10: Coal Supply

Coal Mines	State / Country	Reserves (mn T)	Supply (MTPA)	Supply to Project
Bunyu	Indonesia	150		Mundra I, II, III & IV
Mahanadi Coal Linkage (MCL)	India	160	6.4	Mundra IV
South Eastern Coalfields (SECL)	India	63	2.5	Tiroda I & II
Western Coalfields (WCL)	India	55	2.2	Tiroda I & II
Total		428	11.1	

Source: Company, Ministry of Coal, BofAML Global Research

- **Diversified fuel mix to reduce reliance on a single source.** All of APL's capacities were based on imported coal until mid-2007. To reduce its reliance on a single fuel source and to acquire control over fuel supply, APL is adding capacities with multiple sources of coal –
 - Three projects totaling to 2.64GW on imported coal,
 - One project of 1.98GW on coal linkage and imported coal,
 - Four projects of 4.62GW on coal linkage including 1.32GW project on likely coal linkage with Rajasthan Government,
 - Coal mix - Imported from Bunyu, Indonesia along with other imported sources (33% of capacity) and domestic coal linkages (67%).

Chart 25: APL: capacity break-down by source of coal

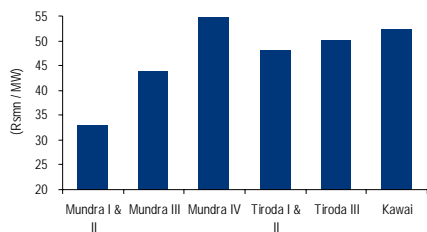


Source: Company

Transmission cost advantage

APL's location in power-deficit states also gives it competitive edge and better realization to the extent of 25-40paise/kWh or 10-15% of power prices. This is the charge which its competitors from other regions have to pay to grid to reach these deficit regions.

Chart 26: APL: Projects cost per MW



Source: Company, BofAML Global Research

Tax efficient planning

SEZ and mega power benefits lower capital cost

Mundra power projects are being developed as a co-developer of special economic zones (SEZs).

APL has also applied for approval to develop the Tiroda project under the Mega Power Project policy of the Government of India. The power projects at Dahej and Kawai are also expected to be developed under the same policy.

SEZ benefits entitle the Mundra project to claim exemption from customs duty on import of fuel (to the extent the power generated from the consumption of such fuel is sold to businesses in the SEZ) and equipment, dividend distribution tax, central excise duty, central sales tax, income tax and service tax. Mega power projects help APL projects reduce capital cost as they are exempt from duties. Consequently, APL enjoys a lower capital cost/MW by 8-10% (Chart 26).

Customs duty likely on SEZ on power sale outside the zones

- As per media reports, the finance ministry has proposed a customs duty of 16%, or a flat 50 paise per unit, on power sold by SEZ plants to customers outside the zone.
- The finance ministry believes that if these plants are allowed to sell power to customers in the domestic tariff area without a tax, it would discourage investments in DTA in the power sector.

Considering the above proposals, we have not factored into our estimates the income tax benefit of SEZs and assume Infrastructure gains are available to APL.

Visible growth:

Among the new IPPs, APL promises one of the most visible growth with most of the key milestones / approvals received for capacity to be commissioned by FY12E as shown below:

- Key equipment ordered for 100% of 5.3GW capacity by FY12E
- Early start to commissioning of capacity – first unit started in June'09 (see photographs below)
- Fuel tied-up for 100% of its capacity
- Financial closure achieved for 71% of capacity with balance 29% capacity having either under-writing commitments / sanction letters / In-principle approval for funding from leading Indian banks.
- Land acquired for 86% and application pending for 14% of capacity
- Well spread-out commissioning with all plants getting commissioned by Nov 2013 (BofAMLe).

Figure 1: Boiler Structure Getting Ready



Source: APL

Figure 2: Chimney



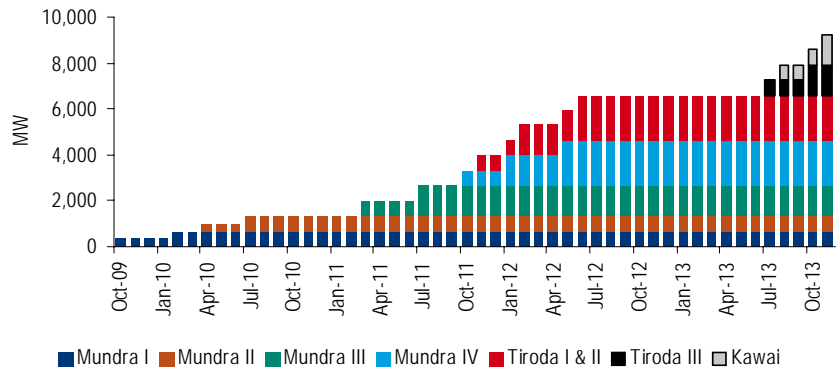
Source: APL

Figure 3: Transmission sub-station



Source: APL

Chart 27: APL: Forteen fold capacity expansion over FY10-14E



Source: Company, BofAML Global Research

- Coal mines in Bunyu, Indonesia are ready to scale-up production in-line with new capacities commissioning at Mundra (see photos below).

Figure 4: Jetty



Source: Company

Figure 5: Crusher & Screening Plant



Source: Company

Figure 6: Pit 1, Coal-getting in Operations



Source: Company

- Environment clearance obtained for 64% and applied for 36% of capacity.
- Water allocation received for 79% and to be applied for 21% of capacity.

RoE optimization strategies

Apart from above competitive advantages, APL has adopted following RoE optimization strategies:

- Mix of PPA / merchant power projects.** In our view, APL is striking a right balance between more profitable projects (merchant power) at ~20-25% of its volume and consistency of cash flows (PPA based projects) at ~75-80%, in our view. To achieve above mix, APL has also pre-sold 3.42GW of its 4.62GW capacity at Mundra, 2.52GW of 3.30GW Tiroda project and 1.20GW of 1.32GW Kawai project @ healthy tariffs.
- Low cost E&C cost** as discussed in tax efficient planning
- Captive transmission:** The availability of means of transmission is a key factor for success of supply of power on spot basis. APL has completed 433 km double circuit 400 kV transmission line connecting to the PGCIL Grid at Dehgam, Gandhinagar for evacuation of surplus power from the Mundra I, II and III power project on spot basis.

Table 11: APL: Projects' RoE when PPA is operational

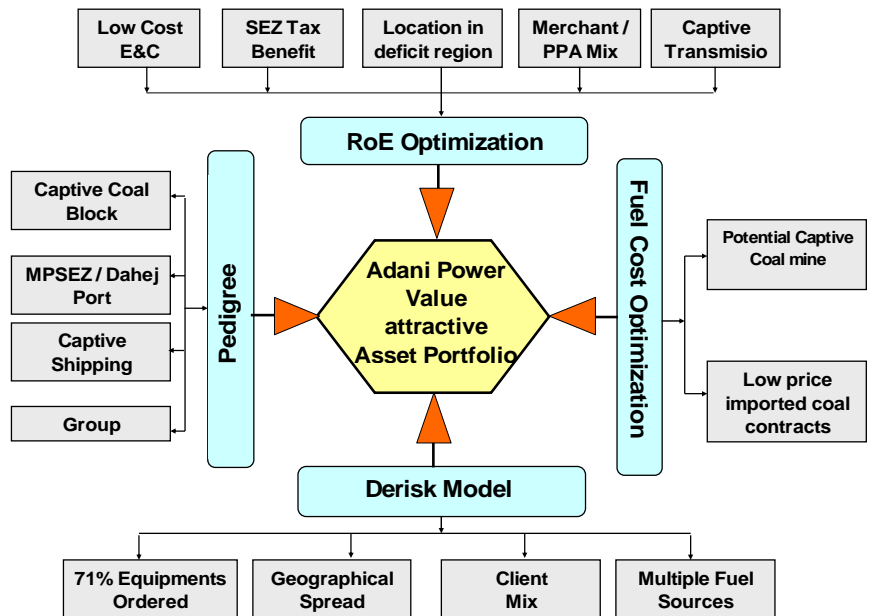
Projects	RoE %	Year
Mundra I, II & III	26.1%	FY13E
Mundra IV	31.2%	FY14E
Tiroda I, II & III	36.7%	FY13E
Kawai	28.5%	FY15E

Source: BofAML Global Research

- APL is setting up an ~800km double circuit 500kV HVDC transmission line for transmitting 2500MW power from Mundra to Mohindergarh, in the state of Haryana (North India) for Mundra IV power project. This project will help APL reach land-locked and high tariff markets of North India from coast based Western India, in an economical way. This line shall endow a significant competitive advantage to APL.
- APL also intends to install a 225 km double circuit 400 kV transmission line and a 140 km double circuit 400 kV transmission line from Tiroda power project, a 100 km double circuit 400 kV transmission line and 200 km double circuit 400 kV transmission line from Kawai power project, and a 75 km double circuit 220 kV transmission line and 275 km double circuit 400 kV transmission line from Dahej power project.
- **Super-critical (SC) technology.** APL has zeroed in on SC technology to drive operational efficiency. All of APL's power projects (other than Mundra I and II) are planned on super-critical technology to reduce the amount of coal consumed to generate power. The efficiency of steam generation through super-critical technology is significantly higher than that from the conventional sub-critical technology. Higher steam generation efficiency will lead to lower coal consumption and hence increase overall efficiency.

We believe APL's portfolio strategy of accumulating multi-sourced fuel/ multi-geographies projects should be value accretive as summarized below.

Chart 28: APL: Competitive advantage matrix



Source: Company, BofAML Global Research

29 January 2010

Table 12: Adani Power: Detailed projects-wise summary

	Mundra I & II	Mundra III	Mundra IV	Tiroda I & II	Tiroda III	Kawai
Capacity (MW)	1320	1320	1980	1980	1320	1320
No. of units	(4x330)	(2x660)	(3x660)	(3x660)	(2x660)	(2x660)
Implementing Company	APL	APL	APL	APML	APML	APRL
APL's stake (%)	100%	100%	100%	74%	74%	100%
SEZ / Mega power project status	Co Developer of Multi product SEZ	Co Developer of Multi product SEZ	Co Developer of Multi product SEZ	Mega Power Project approval received for 1320MW	To be applied for MPP	To be applied for MPP
Project cost (Rs mn)	43500	57960	108331	95469	66128	69300
Financing						
Debt: Sub-Debt: Equity ratio	75:9:16	75:5:20	75:5:20	75:5:20	75:5:20	75:5:20
Debt (Rs mn)	32440	43470	81248	71602	49596	51975
Sub Debt (Rs mn)	4000	2898	5417	4773	3306	3465
Equity (Rs mn)	7060	11592	21666	19094	13226	13860
Financial Closure	Done	Done	Done	Done	100% underwriting from SBI under process	100% underwriting from SBI under process
Financial Closure date	20-Sep-2006 (Mundra I) 25-Jul-2007 (Mundra II)	28-Mar-2008	24-Jun-2009	30-Jan-2009 & 16-Sep-2009	-	-
Commissioning Scheduled 1st unit / Project	Oct-2009 / Jul-2010	Mar-2011 / Jul-2011	Oct-2011 / May-2012	Nov-2011 / Jun-2012	Jul-2013 / Oct-2013	Aug-2013 / Nov-2013
Offtake / PPA details						
Offtake / PPA	Yes	Yes	Yes	Yes	Qualified for 1200MW supply to MSEDCCL	Yes
Contracted capacity (MW)	1000	1000	1424	1320	1200	1200
PPA Date	06-Feb-2007	02-Feb-2007	07-Aug-2008	08-Sep-2008	LOA expected in 4QFY10	Jan-10
PPA Customer	GVVNL	GVVNL	DHBVNL & UHBVNL	MSEDCL	MSEDCL	RRVUNL
PPA Term	25 years	25 years	25 years	25 years	25 years	25 years
Key assumptions						
Coal assumptions						
Coal Source (Captive / Linked / Imported)	Imported	Imported	Imported & Linkage	Linkage	Linkage	Linkage
Delivered cost of coal to power plant (Rs/ton)						
- Imported	2,520	2,520	2,520	0	0	0
- Linkage 1	0	0	1,630	970	0	1,564
- Linkage 2	0	0	0	1,310	0	0
- Linkage 3	0	0	0	970	970	0
Heat Rate (Kcal/ kWh)	2250	2100	2100	2100	2100	2100
Operational assumptions						
- Expected PLF (%)	85.0%	85.0%	85.0%	85.0%	85.0%	85.0%
- Auxilliary Consumption (%)	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
Average Realisation (Rs/kWh)						
- Year 1	3.95	3.95	4.00	4.00	2.94	2.74
- Year 2	3.02	3.68	2.61	2.78	2.97	2.77
- Year 3	2.99	2.42	3.20	2.65	3.01	2.77
- Year 4	2.80	2.42	3.19	2.67	3.06	2.76
- Year 5	2.81	2.43	3.19	2.69	3.10	2.76
Execution Mile Stones						
Procurement Status	BTG & BoP contracts entered	EPC contracts entered	EPC contracts entered	BTG & BoP contracts entered	Bids invited in Sept-09	Bids invited - Contract to be awarded by Dec-09
Name of the Supplier	a) Boiler - Beijing Babcock Wilcox b) Turbine / Generator - Beijing Beijong	a) Boiler - Harbin Power b) Turbine / Generator - Dongfang	a) Boiler - Harbin Power b) Turbine / Generator - Dongfang	BTG - Shanghai Electric	NA	NA
Whether land acquired	Yes	Yes	Yes	Yes	Yes	Yes
Size of land acquired (hectares)	Leased 294 Hectares	Same for Mundra I & II	Same for Mundra I & II	Leased 210 Hectares & applied for additional 192 Hectares	Same for Tiroda I & II	579
Location of land	Tunda & Siracha, Mundra village	Tunda & Siracha, Mundra village	Tunda & Siracha, Mundra village	Tiroda, Gondia	Tiroda, Gondia	-
Coal Supply Status	Coal Supply Agreement with ADE for 4MTPA	Coal Supply Agreement with ADE for 4MTPA	a) Coal linkage - Provisional LOA for 6.4mmt from MCL for 1366MW & b) Coal Supply Agreement with ADE for 6.5MTPA	a) Coal Linkages - LOA for 4.75mmt (SECL 2.5mmt & WCL 2.2mmt) for 1180MW b) Applied for additional coal linkages	Applied for coal linkages	Applied for Coal Linkage
Coal Commitment Received (mn T)	4.00	4.04	6.50	Coal Linkage (NA)	-	-
Whether approval for water intake & discharge acquired	Yes	Yes	No	Allotment of 90mn cubic mtr p.a. for 3300MW	As per Tiroda I & II	Allocated 1200mn cubic ft. p.a. (34mn cubic mtr p.a.)
Water required (cubic mtr per hr)	13700	12000	17000	7500	5000	5000
Source of Supply	Sea Water	Sea Water	Sea Water	Wainganga river water	Wainganga river water	Lhasi & Andheri rivers' water
Environment clearance approval from MOEF	Yes	Yes	Yes, Minutes of Meeting of MoEF	Ph I received, Ph II EIA under progress	EIA under progress	EIA under progress
Environment clearance Approval Date	13-Aug-2007 & 21-Oct-2008	21-Oct-08		29-May-08	NA	NA
Polution Control Board approval received	Yes	Yes	No	For Phase I	No	No
NOC from AAI received	Yes	Yes	Yes	For Phase I	No	No
NOC from Maritime Board received	Yes	Yes	No	For Phase I	No	NA
Carbon Credit (CDM approval)	NA	Yes	No	No	No	No

Source: Company, BoAML Global Research

Potentially India's largest single-site and most profitable power project

Mundra power project (4.6GW) – 42% of SOTP

India's largest & very profitable plant on unregulated ROE

APL is implementing Mundra thermal power station (TPS) – potentially India's largest single-location power plant with a capacity of 4,620MW – spread over four phases at the coastal town of Mundra, Gujarat. This project is implemented on an unregulated business model. This means it would supply power at a tariff based on competitive bidding and there will be no cap (regulation) on its returns. Put another way, APL can retain the full benefit of its low-priced coal contracts and earn premium ROEs. The capex is expected to be financed via a debt/equity mix of 80: 20.

79% of power pre-sold; rest slated for tie-ups

APL has entered into a 25-year power purchase agreement (PPA) with Gujarat Urja Vikas Nigam (GUVNL) to supply 1,000MW of power produced from the Mundra I and II projects, and to supply 1,000MW of power from the Mundra III project. It has also inked a 25-year PPA with two DISCOMs (DHBVNL and UHBVNL) of Haryana to supply 1,424MW of power from the Mundra IV project.

Low-cost coal contracts locked-in, driver of profits/value

APL has already secured a 25-year contract with its parent, ADE, to supply 14.5mtpa of coal for its 4,620MW Mundra power projects at an estimated weighted average cost of US\$36.3/tn CIF (Mundra) as indicated in Table 13, vs the current spot thermal coal price of US\$40-45/tn for a similar grade coal.

Our visits indicate initial coal costs may be higher

Based on our visits to Indonesian coal mines, the Mundra power project and discussions with industry experts, we believe that APL may blend high-calorific, low-moisture imported coal with relatively higher moisture Indonesian coal to achieve faster stabilization of its first power project. It may then experiment with increasing the quantum of Indonesian coal in a gradual manner to optimize the coal costs. Hence, we factor in higher initial coal costs vs the long-term contract coal prices.

Coal import logistics under control: Captive ships + port

APL has already ordered two capesize vessels, costing US\$79mn each, to transport coal from Indonesia. This will give it control over time and freight rates (US\$10/tn, see Table 14).

The Mundra Port and Special Economic Zone (MPSEZ), an Adani Group company, is setting up India's largest coal terminal at a distance of ~5km from the Mundra power project site to meet the volume output from APL and Tata Power's 4GW UMPP (Ultra Mega Power Project). Imported coal can be transferred to the power project by conveyor belts and/or railway lines.

1st 330MW commissioned in Oct-09 and project by 1QFY13E

The **Mundra I and II** power project comprises 4x330MW sub-critical generation units with a combined capacity of 1,320MW. The boiler, turbine and generator (BTG) package for Mundra I and II was awarded to Sichuan Machinery and Equipment Import and Export Co. and Kowa Co., respectively. The first 330MW unit of Mundra I and II power project has started operations from October 2009 and the project will be fully commissioned by July 2010.

Table 13: Imported Coal Supply Agreements

Power Project	Qty (mn T)	Est. Price	Est. Price
		CIF (US\$/MT) @ 5200kCal	CIF (US\$/MT) @ 4200kCal
Mundra I & II	4.0	37.0	29.9
Mundra III	4.0	36.0	29.1
Mundra IV	6.5	36.0	29.1
Total	14.5	36.3	29.3

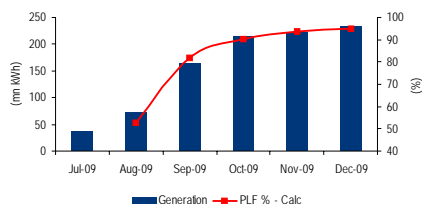
Source: Company, BofAML Global Research

Table 14: Coal Shipping Logistics & Costs

Deadweight	175000	MT
Speed	15	knots
Loadable qty	165000	MT
Days in LP	4.8	days
Discharge run	35000	MT/day
Days in DP	4.8	days
Idle days	10.0	days
Distance	3903	nautical miles
Voyage time laden	10.8	days
Spare	2	days
Round trip	23.7	days
Total voyage time	33.7	days
Voyage expenses	720000	US \$
Operating expenditure	945000	US \$
Total expenses	1665000	US \$
Freight rate/MT	10.1	US \$/MT

Source: APL, BofAML Global Research

Chart 29: PLF of 1st 330MW plant > 90% in 3months



Source: Company, Ministry of Power, BofAML Global Research

The **Mundra III** power project comprises 2x660MW super-critical generation units with a combined capacity of 1,320MW. The engineering, procurement and construction (EPC) contract has been awarded to SEPCO-III Electric Power Construction Corporation and Shandong Tiejun Electric Power Engineering Co. The first 660MW unit of Mundra III power project is likely to be commissioned in March 2011 and the project will be fully commissioned by July 2011.

The **Mundra IV** is a 3x660MW super-critical generation power project with a combined capacity of 1,980MW. The EPC contract has also been awarded to SEPCO-III Electric Power Construction Corporation and Shandong Tiejun Electric Power Engineering Co. The first 660MW unit of Mundra IV power project will commence operations from October 2011, and the project will be fully commissioned by May 2012.

Table 15: Mundra I, II & III: Operational Performance

Particulars	FY10E	FY11E	FY12E
Plant Load Factor %			
- Mundra I & II	80%	85%	85%
- Mundra III	85%	85%	85%
Gross Generation (mn kWh)			
- Mundra I & II	1,369	9,115	9,856
- Mundra III	-	417	8,630
Power sold (mn kWh)			
- Mundra I & II	1,273	8,865	17,192
- Mundra III	-	388	8,026
Average Tariff (Rs)			
- Mundra I & II	3.95	3.02	2.99
- Mundra III	0.00	3.06	3.31

Source: BofAML Global Research

Execution track record and performance update

APL commissioned its first power project in good time as illustrated in Table 16 below. However, the tightening of visa regulation by India on Chinese workers is likely to cause an 8-12 week delay to the commissioning of the rest of the 3x330MW units, which we have factored into our estimates. Performance of the first 330MW unit has been satisfactory with rapid stabilization, reduced tripping, marked improvement in plant availability (>90% consistently for four months) and plant load factor (PLF) at >85% during September-December 2009 (Chart 29).

Table 16: Execution from order date (250/300MW)

Milestones / Months	Sagardighi	Amarkantak	Lehra Mohabbat	Mundra
EPC Contractor	Dongfang	Lanco	BHEL	Adani
Drum Lifting	17	20	16	19
Hydro Test	31	31	30	26
Boiler Light up	36	43	36	34
Synchronization	41	48	45	36

Source: Media Reports

Table 17: Mundra IV: Operational Performance

Particulars	FY12E	FY13E	FY14E
PLF	85%	85%	85%
Gross Generation (mn kWh)	3,689	14,339	14,743
Power sold (mn kWh)	3,378	13,129	13,499
Average Tariff (Rs)	4.00	2.61	3.20

Source: BofAML Global Research

Assumptions

We have taken the tariff for the GUVNL deal as per the PPA with the first 1GW being sold at a levelized tariff of Rs2.89/kWh (ranging from Rs2.81 per unit for the first year to Rs3.42 per unit in the 25th year) and the second 1GW being sold at Rs2.35/kWh. We have taken the tariff for the deal with the state government of Haryana at a levelized tariff of Rs2.93/kWh (ranging from Rs2.35-3.26). Merchant power is assumed at Rs4-5/kWh till FY12E – in line with the current merchant tariffs in India (Chart 11) – and at Rs2.90/kWh from FY13E. The rest of the assumptions are detailed in Table 12.

Valuation

We have valued the project at an equity value of Rs120bn (Rs55/share) with Mundra 2640 (Phase I, II and III) contributing Rs68bn and Mundra IV the balance.

Table 18: Mundra I, II & III: Financial Summary

(Rs mn)	FY10E	FY11E	FY12E
Gross Generation (mn kWh)	1,369	9,533	18,486
Net Generation (mn kWh)	1,273	8,865	17,192
Sales	5,037	27,281	58,103
EBITDA	3,127	14,731	33,687
PAT	1,801	8,735	19,091
Free Cash Flow to Equity	2,584	2,939	18,356

Source: BofAML Global Research

Table 19: Mundra IV: Financial Summary

Rs mn	FY12E	FY13E	FY14E
Gross Generation (mn kWh)	3,689	14,339	14,743
Net Generation (mn kWh)	3,378	13,129	13,499
Sales	13,732	35,000	43,904
EBITDA	9,775	18,613	26,453
PAT	5,357	4,726	11,731
Free Cash Flow to Equity	(2,802)	4,272	5,386

Source: BofAML Global Research

Tiroda Power (3.30GW / 2.44GW equity) – 51% of SOTP

74%-owned subsidiary of APL

The Tiroda power project is a 5x660MW super-critical generation station with a combined capacity of 3,330MW. It will be implemented in three phases – Phase I and II (3x660MW) and Phase III (2x660MW). APL currently owns 77.4% equity in this SPV, but it has entered into a shareholders' agreement with Millennium Developers Private Limited on 15 January 2008 to sell 26% equity interest in Tiroda SPV. Hence, APL plans to own 74% equity eventually. The first 660MW unit of Tiroda I and II is likely to start operations from November 2011 and the project will likely be fully commissioned by June 2012. The total capex required for both phases is ~Rs95.5bn. The first 660MW unit of Tiroda III is likely to start operations from July 2013 and the project is likely to be fully commissioned by October 2013. The total capex required for this phase is ~Rs66.1bn.

76% of power pre-sold; rest likely merchant

Tiroda SPV has been successful in its bid to supply 1,320MW of the 1,980GW of Phase I and II and 1,200MW of the 1,320GW of Phase III power to Maharashtra State Electricity Distribution Company (MSEDCL). Given that Maharashtra has the highest deficit of power in India (Chart 20), we see little problem for Tiroda SPV to sell the balance of its power.

Linkage coal + unregulated tariff = Excess ROE

Tiroda I and II have been allocated two coal linkages by South Eastern coalfields and Western coalfields to supply 2.5MTPA (grade F) and 2.2MTPA (grade E), respectively. Further, it is likely to get coal linkages for the balance coal requirement for Phase I and II and for Phase III as well.

Low-cost coal from linkages and unregulated tariffs are the key drivers of superior profitability (EBITDA margins 78% in FY13E) of Tiroda SPV.

New captive coal mine a possibility

Tiroda Phase I and II will require approximately 6.18MTPA coal based on the average GCV of 4,895kcal/kg and PLF of 85.0%. Tiroda SPV was allocated two coal mines, namely, the Lohara West and Lohara Extension in November 2007 by the Ministry of Coal. However, the Ministry of Environment and Forests (MoEF) has rescinded the allocation of the coal blocks, as it believed the implementation of this mining venture, given its proximity to the Tadoba-Andhari Tiger Reserve (TATR), will likely cause irrecoverable damage to the rich biodiversity of the locale and also endanger the very existence of the tiger in the reserve.

APL is reportedly seeking allocation of the Sherband Baisi coal block to replace the Lohara blocks, which it has identified to meet the feedstock requirements of its envisaged 1.32GW plant at Tiroda. Looking into the past turn of events, advance stage of the development of project, recently a government power think tank – CEA team – visited the Tiroda site to assess the progress and recommend allocation of suitable linkage/mine to the project. This move, we believe, is significant and raises hope for increased fuel security. However, APL has two years to obtain fuel for its balance capacity, so we are not worried about fuel security of power capacity already contracted, ie, 1.32GW.

Domestic coal linkages ensures fuel security and economical cost of generation

Support infrastructure to fall into place

Water will be available for the project from the nearby Wainganga river.

A 225km double circuit 400kV transmission line and a 140km double circuit 400kV transmission line from the Tiroda power project will likely be set up to bring power to the existing Power Grid Corporation of India Limited (PGCIL) and Maharashtra State Electricity Distribution Company (Mahadiscom) substations.

Execution picking up, BTG ordered, civil works ongoing

On our site visit to Tiroda, we find that project execution has picked up pace with almost all land in possession for the 3.3GW capacity. Tiroda SPV has already placed orders for Phase I and II for the Boiler, Turbine, Generator (BTG) package (~40-45% of total project cost) with Sichuan Machinery and Equipment Import and Export Company Limited for US\$999.9mn.

Civil work is at an advanced stage with the 240m chimney already done and TG foundations being prepared for installation in a few months. A team from Shanghai Electric should arrive in a few months to start the BTG installation. Project executives believe that barring untoward incident, the first 660MW should commission in August 2011. Location near naxalite area is the key risk to project execution.

Table 20: Tiroda I, II & III: Operational Performance

Particulars	FY12E	FY13E	FY14E
Plant Load Factor %			
- Tiroda I & II	85%	85%	85%
- Tiroda III	85%	85%	85%
Gross Generation (mn kWh)			
- Tiroda I & II	2,854	13,922	14,743
- Tiroda III	-	-	6,140
Power sold (mn kWh)			
- Tiroda I & II	2,655	12,947	13,711
- Tiroda III	-	-	5,710
Average Tariff (Rs)			
- Tiroda I & II	4.00	2.78	2.65
- Tiroda III	NA	NA	2.94

Source: BofAML Global Research

Assumption

We have taken the tariff for the MSEDCL deal as per the PPA for Phase I and II with the first 660MW sold at a levelized tariff of Rs2.64/kWh and the second 660MW at Rs2.70/kWh, and 1,200MW of Phase III sold at a levelized tariff of Rs3.27/kWh. Merchant power is assumed at Rs4-4.5/kWh till FY12E – in line with the current merchant tariffs in India (Chart 11) – and Rs3/kWh from FY13E. The rest of the assumptions are detailed in Table 12.

Valuation

We have valued the project at an equity value of Rs145bn (Rs67/share) for APL's 74% stake.

Table 21: Tiroda I, II & III: Financial Summary

Rs mn	FY12E	FY13E	FY14E
Gross Generation (mn kWh)	2,854	13,922	20,883
Net Generation (mn kWh)	2,655	12,947	19,421
Sales	10,817	36,983	54,261
EBITDA	9,153	28,830	41,018
PAT	6,197	15,537	22,082
Free Cash Flow to Equity	(6,410)	6,331	15,814

Source: BofAML Global Research

Kawai Power Plant (1.32GW) – 7% of SOTP

Adani Power Rajasthan Ltd (Kawai SPV), a wholly-owned subsidiary of APL, will implement the Kawai power project at Kawai Village in District Baran, Rajasthan. This is a 2x660MW super-critical generation project with a combined capacity of 1,320MW. The first 660MW unit of the project will commence operations from August 2013 and the second unit will likely be commissioned by November 2013. The Kawai project is located ~2km from the Salpura Kawai Railway Station and is close to the NH90, which is currently under construction. The site is located close to the Lhasi and Andheri rivers, which will supply water for the project. This power project has an estimated development cost of Rs69.3bn.

91% of power pre-sold

The Kawai SPV has been successful in its bid to supply 1,200MW of the 1,320MW of capacity to Rajasthan Rajya Vidhyut Utpadan Nigam Ltd (RRVUN) at a 25-year levelized tariff of Rs3.24/kWh.

State government to help with coal contracts

Under an MOU, the Government of Rajasthan has agreed to use its best efforts to facilitate coal supplies for the Kawai power project from the Government of India or other sources.

Table 22: Kawai: Operational Performance

Particulars	FY14E	FY15E	FY16E
Plant Load Factor	85%	85%	85%
Gross Generation (mn kWh)	5,305	9,829	9,856
Power sold (mn kWh)	4,933	9,141	9,166
Average Tariff (Rs)	2.74	2.77	2.77

Source: BofAML Global Research

Two transmission lines likely for national reach

The Kawai SPV proposes to build a dedicated double circuit 400kV transmission line from the power station connecting to the 400kV grid substation of PGCIL at Kota, which is ~100km from the project site. This line will be used for selling to any Rajasthan-based distribution licensee or to any other Rajasthan-based end-user. Also, the Kawai SPV proposes to build a double circuit 400kV transmission line from the project site connecting to the 400kV grid substation of PGCIL at Bina in Madhya Pradesh located ~200km from the project site. This will enable evacuation of power to any distribution licensee connected to the national grid.

Assumptions

Merchant power is assumed at Rs3.3/kWh from FY14E. We have used high cost of equity (13.7%) as this project is yet to have a formal tie-up for fuel and order equipments.

Valuation

We have valued the project at an equity value of Rs19bn (Rs9/share) for APL's 100% stake in the Kawai SPV.

Table 23: Kawai: Financial Summary

Rs mn	FY14E	FY15E	FY16E
Gross Generation (mn kWh)	5,305	9,829	9,856
Net Generation (mn kWh)	4,933	9,141	9,166
Sales	13,843	25,967	25,975
EBITDA	7,961	14,774	14,452
PAT	2,740	5,513	5,847
Free Cash Flow to Equity	(732)	1,881	2,843

Source: BofAML Global Research

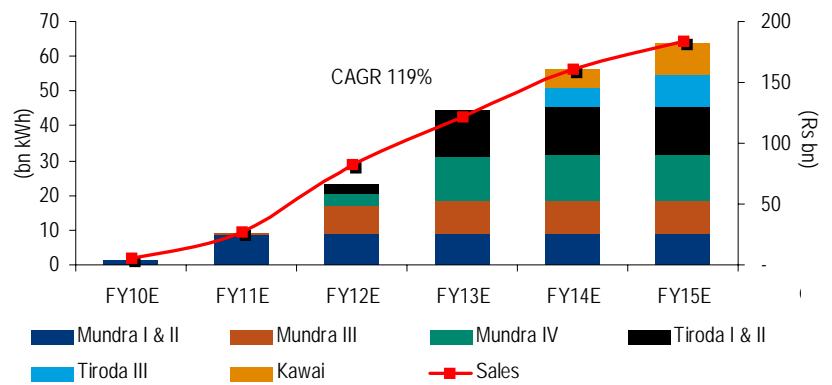
Financials

We see APL's recurring earnings grow 16x over FY10-12E (ex-minorities). This would be led by a congruence of:

1. Multifold expansion in generation capacity to 5.3GW in FY12E vs 660MW in FY10E.
2. Increase in generation volumes to 23.2bu in FY12E vs 1.3bu in FY10E.
3. Low-priced coal from imports and coal linkages.
4. Realized above-average price/kWh from existing front-loaded PPAs, pre-PPA merchant capacity (in-firm power) and likely new contracts in merchant markets, which is likely to remain buoyant till FY12E on shortages.
5. Benefits of low-cost equipment due to SEZ privileges and high operating rates (85%), as well as low heat rates (2,250kcal for sub-critical and 2,100 for super-critical).

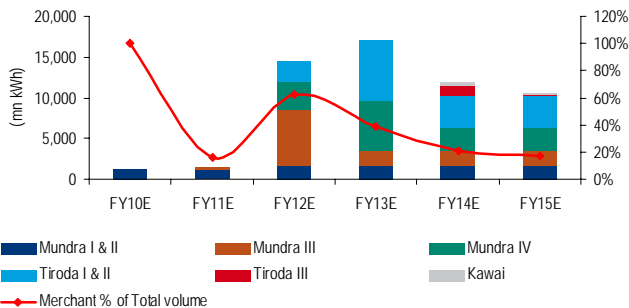
Adani Power is designed to capitalize on near term 'super-normal' returns in the Indian merchant power market and then shift to long term PPA market when 'excess returns' normalize

Chart 30: Adani Power – Generation Break-up (bn kWh) & Sales (Rsbn)



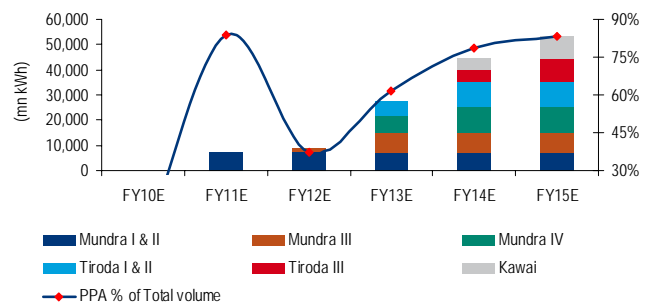
Source: Company, BofAML Global Research

Chart 31: Adani Power Merchant Volume



Source: Company, BofAML Global Research

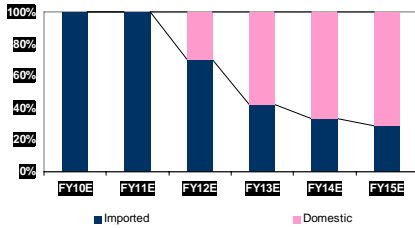
Chart 32: Adani Power - PPA Volume



Source: Company, BofAML Global Research

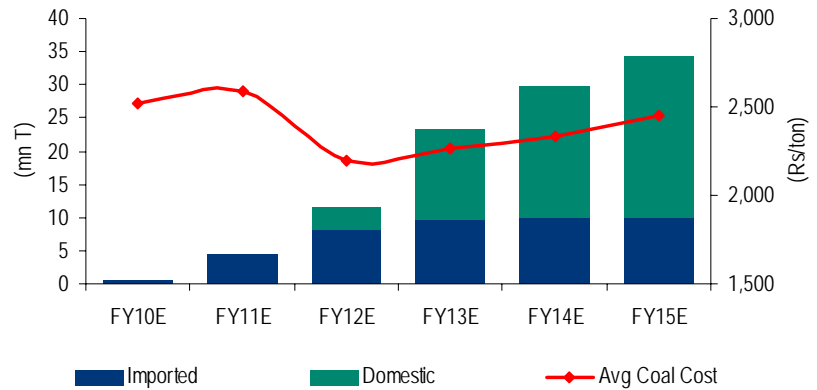
We expect coal costs to reduce as APL shifts towards the low cost Indian coal linkages v/s imported coals.

Chart 33: APL coal mix



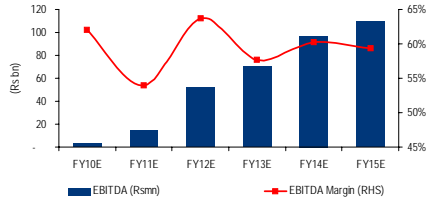
Source: Company, BofAML Global Research

Chart 34: APL Coal Consumption & Average Cost



Source: Company, BofAML Global Research

Chart 35: APL - EBITDA & EBITDA margin



Source: Company, BofAML Global Research

APL to be one of the most profitable IPPs in the region

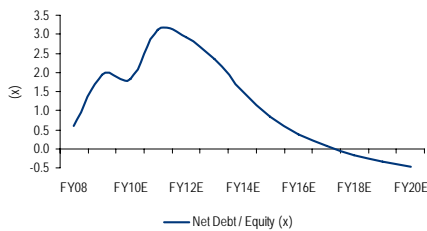
APL's EBITDA margin of 64% and ROE of 34.7% for FY12E vs Indian IPP average EBITDA margin of 50.6% and ROE of 15.7% are driven by:

- High merchant realization till FY12E.
- Front-loaded tariff in some of the projects from already signed PPAs, while costs increases are linear.
- Early start of lowest-priced coal contracts (US\$36.3 CIF for Mundra I & II).
- High leverage (80% debt) used in funding structure maximizes ROE.
- Improving asset turns (see Dupont model in table 44).

State of balance sheet

- APL has been funded at an optimum debt/equity ratio of 80:20 (at project level), which does not leave much scope for leverage. However, due to an IPO in FY10E, APL has enough room to leverage to fund the entire 9.2GW capacity both in terms of debt and equity.
- The company needs Rs280bn debt and equity funding over FY10-12E, when capex should peak and all projects commissioned (FY13E). In FY13E, cash flow (CFO and CFI) should match. After FY13E we forecast significant free cash flows leading to peaking of net D/E.
- Being a project company and an infrastructure holding company, APL's consolidated debt/equity may rise sharply as its special purpose vehicle (SPV)/projects raise debt. However, we are not overly concerned by a high consolidated debt/equity ratio as it is primarily due to the debt raised by its infrastructure subsidiaries, which have been funded at a high debt/equity (4:1). None of the infrastructure SPVs has recourse to the parent's financials.
- APL has subsidiary company projects with total equity commitment of Rs37.8bn, which we have fully factored in till FY12E.

Chart 36: APL: Consolidated Net Debt / Equity



Source: BofAML Global Research

Table 25: Adani Power - 3QFY10 Results

(Rs mn)	3QFY10
Capacity (MW)	330
PLF %	92.0%
Gross Generation (mn kWh)	670
Auxiliary Consumption %	9.7%
Net Generation (mn kWh)	606
Electricity Sales	2,336
- Rs/kWh	3.86
Other Op. Income	0
Total Op. Income	2,336
Fuel Costs	854
- Rs/kWh	1.41
- Rs/ton	2,962
- % of Op. Income	36.6%
Fuel Oil / Other Costs	116
- % of Op. Income	5.0%
O&M Costs	94
- % of Op. Income	4.0%
Total Op. Expenses	1,064
- % of Op. Income	45.5%
EBITDA	1,272
- Rs/kWh	2.10
EBITDA Margin	54.5%
Depreciation	176
EBIT	1,096
- Rs/kWh	1.81
EBIT Margin	46.9%
Interest Expenses	167
Interest & Other Income	0
PBT	929
- Rs/kWh	1.53
PBT Margin	39.8%
Tax	204
Tax rate %	22.0%
Rec PAT	725
- Rs/kWh	1.20
Rec PAT Margin	31.0%

Source: Company

Table 24: APL Project Capex Schedule

(Rs mn)	Mundra I & II	Mundra III	Mundra IV	Tiroda I & II	Tiroda III	Kawai	Total
FY08	16,717	7,353	-	577	-	-	24,646
FY09	22,224	10,792	8,770	2,929	-	-	44,714
FY10E	4,559	20,286	22,283	35,108	3,306	10,395	95,937
FY11E	-	17,388	32,429	32,001	13,226	13,860	108,903
FY12E	-	2,141	44,849	24,855	19,838	17,325	109,009
FY13E	-	-	-	-	19,838	20,790	40,628
FY14E	-	-	-	-	9,919	6,930	16,849
Total Cost	43,500	57,960	108,331	95,469	66,128	69,300	440,688

Source: Company, BofAML Global Research

Table 26: APL: Consolidated Financial Summary (ex-minorities)

Rs mn	FY10E	FY11E	FY12E
Gross Generation (mn kWh)	1,369	9,533	25,030
Net Generation (mn kWh)	1,273	8,865	23,225
Sales	5,037	27,281	82,652
EBITDA	3,127	14,731	52,614
Rec. PAT post-minority	1,801	8,735	28,227
Free Cash Flow to Equity	(12,038)	(16,218)	4,543

Source: BofAML Global Research

3QFY10 results indicate commendable stabilization of operations

APL declared its 1st quarterly result (see table 25) post-IPO this week. Key observations were:

- 1) Results were of its 1st 330MW unit commissioned in 2QFY10
- 2) Quick stabilization of plant: PLF 92% and Availability 98%, which addresses concerns on operations of Chinese plants in India. This may have been aided by an expert O&M team and use of higher calorific value, low ash imported coal.
- 3) Blended ASP at Rs3.86/kWh was in-line with BofAMLe
- 4) Auxillary consumption & fuel costs were high due to start-up phase but it should indeed normalize as plant stabilize and coal blend shifts in-favour of Indonesian coal v/s South African coal.
- 5) Company didn't claim SEZ benefit.

Chart 37: 10-year Bond Yield Curve (%)



Source: Bloomberg

Risks

Interest rates: Rise in 10-year bond factored in

The Bank of America Merrill Lynch economics team estimates 10-year bond yields to rise 25-50bp to 7.75-8% in FY11E. This would increase the cost of equity and reduce DCF values. We have taken risk-free rate at 7.8% vs 7.5% currently and in line with BofAMLe of 7.75%. We have also performed a sensitivity analysis on cost of equity (CoE) and find that a 25bp rise in CoE would change our asset valuation by 2.5% (see table 27).

Competition and tariff risk

APL and its subsidiaries would essentially compete with the new wave of private IPPs such as Reliance Power, Tata, JP, Sterlite, JSPL, JSW, Torrent, GMR, GVK, Adani, Lanco, Essar and L&T. Competition for power project concessions and supplies has already intensified and that may drive down the rates of return and limit APL's growth prospects. Our sensitivity analysis points to a 3.9% change in our SOTP value for a 5% change in merchant tariff.

Table 27: APL - Sensitivity of 25bp change in CoE

Project	CoE (%)	% Change in Eq. value	
		CoE + 25bp	in Eq. value
Mundra I, II & III	13.2%	13.5%	1.5%
Mundra IV	14.3%	14.6%	2.4%
Tiroda I, II & III	13.7%	13.9%	2.7%
Kawai	13.7%	13.9%	4.2%
Total	13.7%	14.0%	2.5%

Source: BofAML Global Research

Table 28: Sensitivity of 5% change in Merchant tariff

FY13E	Mundra I, II & III	Mundra IV	Tiroda I, II & III	Kawai
Revenue	1.0%	2.6%	3.0%	NA
EBITDA	2.2%	4.9%	3.8%	NA
PAT	4.3%	15.9%	5.9%	NA

Source: BofAML Global Research

Table 29: Sensitivity of 5% change in Merchant Tariff

Project	% Change in Eq. value
Mundra I, II & III	5.9%
Mundra IV	5.6%
Tiroda I, II & III	2.7%
Kawai	0.9%
Total	3.9%

Source: BofAML Global Research

Risk of merchant power sales

The cornerstone of APL's strategy is to remain an unregulated utility to be able to capture the full upside from its competitive advantages. However, the downside to that strategy is that APL will be exposed to power offtake and price risk, especially on spot sales. APL minimizes this risk by pre-selling ~75-80% of its power through long-term PPAs.

Not enough coal reserves to meet Mundra contracts in full

ADE, the coal supplier to APL's Mundra projects, has peak production capacity of 11mtpa at its mines at Bunyu island, while it has committed to supply 14.5mtpa from FY13E. If ADE is unable to secure another mine/traded coal, there may be disruption in production. ADE was the largest importer/trader of coal into India with volume of 19mt in FY09. It may redirect part of its traded coal volume to APL, if it is unable to meet the full requirement of APL from its own captive mine. Further, according to Pt. Mintek Dendrill Indonesia, the estimated coal reserves at these three mines are ~150mn metric tons. While the counterparties under the mining contracts for two of the three mines have procured long-term exploitation licenses to mine coal (for these two mines, an aggregate 1,000ha concession), the third license has not yet been granted to the counterparty under the third mining contract.

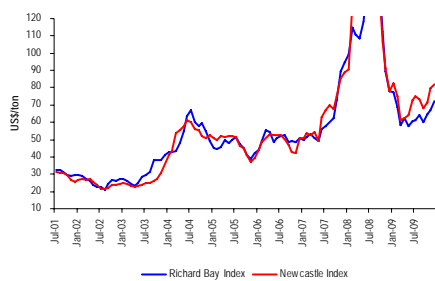
Coal linkages for Tiroda and Kawai also pending

The company is yet to secure the domestic coal linkages for Tiroda Phase III of 1320MW requiring 5.3MTPA and Kawai 1320MW requiring 5.3MTPA. However, given that company has already pre-sold 91% of respective projects and is likely to place equipments orders in the next a few months. We believe that APL should be able to secure linkages for these projects well in time before commissioning.

Project execution risk

Infrastructure projects are susceptible to execution risk. Any delay in execution, especially for capacity already committed through a competitive bidding process, may result in clients asking for liquidated damages. So, if the Mundra's contracted capacity is not commissioned by its scheduled commercial operation date, APL will be required to pay liquidated damages for the delay. If the power project fails to provide GUVNL's proportionate right of output energy, APL will be liable for a penalty to the tune of 1.5x the difference between the highest energy charges for industrial energy in Gujarat and the energy charges for each unit of energy for which GUVNL's right was breached. Further, a delay in projects would also impact IRRs.

Chart 38: Richard Bay and Newcastle Monthly Coal Index



Source: Globalcoal

Table 30: Sensitivity of 5% change in Coal Prices

Project	% Change in Eq. value
Mundra I, II & III	11.8%
Mundra IV	8.1%
Tiroda I, II & III	2.1%
Kawai	10.4%
Total	6.1%

Source: BofAML Global Research

Payment risk

APL does face payment risk especially as the financials of many State Electricity Boards (SEBs) are weak. To guard against this risk, APL has provided in the off-take agreement for security, eg, in the case of GUVNL, it has asked for a revolving letter of credit and additional collateral in an escrow account. A third-party sale of up to 25.0% of the electricity (including contracted capacity) is permitted if payment for power purchase is not received within seven days from the due date. In addition, if the collateral is not restored within 30 days of the due date under the invoice, APL has the right to sell 100.0% of the contracted capacity to third parties.

Coal price risk

Coal is the biggest component of cost for a coal-based utility. A 5% change in coal price impacts our SOTP-based valuation by 6.1% and earnings across the projects by 1.5-12.2% in FY13E. The currency impact is also shown in Table 32.

Table 31: Sensitivity of 5% change in Coal Prices

	Mundra I, II & III	Mundra IV	Tiroda I, II & III	Kawai
FY13E				
Cost of Coal	5.0%	5.0%	5.0%	NA
EBITDA	5.2%	3.7%	1.0%	NA
PAT	10.2%	12.2%	1.5%	NA

Source: BofAML Global Research

Table 32: Sensitivity of 5% change in INR / US\$

	Mundra I, II & III	Mundra IV	Tiroda I, II & III	Kawai
FY13E				
Cost of Coal	4.4%	0.9%	0.0%	NA
EBITDA	4.6%	0.7%	0.0%	NA
PAT	9.0%	2.2%	0.0%	NA

Source: BofAML Global Research

Table 33: Sensitivity of 5% change in PLF

Project	% Change in Eq. value
Mundra 2640	17.4%
Mundra 1980	12.4%
Tiroda 3300	12.4%
Kawai 1320	20.4%
Total	14.2%

Source: BofAML Global Research

Equipment risk: Use of Chinese equipment

Based on our on-ground research, we note that APL has ordered boiler, turbine and generator made by Chinese suppliers. The long-term suitability of these equipments in Indian conditions, which necessitates the following to maximize profits, has yet to be proven:

- Very high plant load factors (90-95%) vs Chinese equipments operating at 70-80% in China (Charts 39 and 40). The Indian regulatory regime requires minimum PLF/availability of 85% for a thermal power plant to earn regulated return of 15.5%. Higher PLF attracts incentives to earn premium ROE. This difference in PLF may make Chinese equipment expensive on cost/MWh despite being cheap on cost/MW.
- Use high ash Indian coal, which APL may use at Tiroda and Kawai.
- Ability of turbine fan blades to withstand grid disturbances with frequency falling as low as 48MHz vs Chinese machines suited up to 48.5MHz.

Also, the ruggedness of Chinese equipment as a utility class set is yet to be proven in India, while there are mixed reactions in captive situations.

APL's first 330MW project has done well in terms of operating parameters (85%+ PLF in the past four months) as it uses high calorific value, low moisture and ash imported coal.

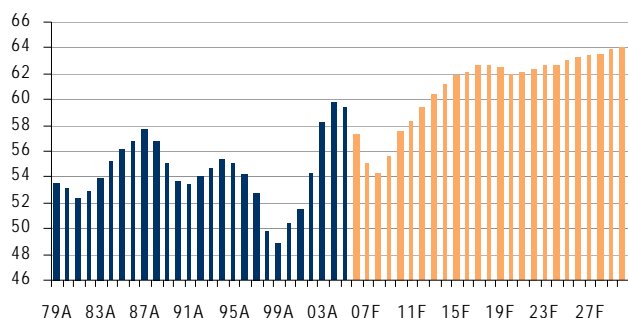
We have assumed APL's plant to operate at 85% PLF, whereas Chinese plants could achieve 90% or even higher utilization in the first few years. Should APL not be able to sustain this rate after a few years, we see a 14.2% impact on consolidated SOTP project value for every 5% drop in PLF (Table 33).

Table 34: Sensitivity of 5% change in PLF

FY13E	Mundra I, II & III	Mundra IV	Tiroda I, II & III	Kawai
Revenue	6.9%	6.4%	6.1%	NA
Cost of Coal	5.9%	6.9%	5.9%	NA
EBITDA	8.2%	6.9%	6.7%	NA
PAT	12.0%	22.5%	10.3%	NA
PAT / kWh	6.5%	17.6%	4.7%	NA
Net Generation (mn kWh)	5.9%	5.9%	5.9%	NA

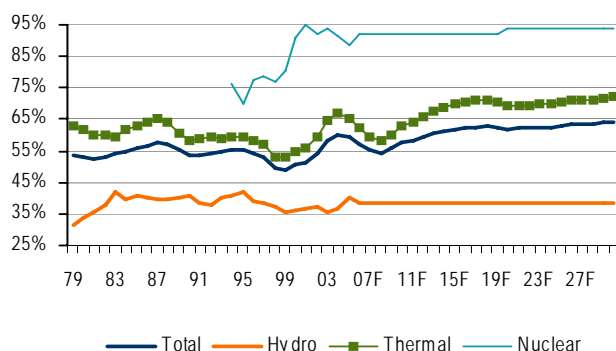
Source: BofAML Global Research

Chart 39: China - Average utilization hours 1979A-2020E (in %)



Source: "China Electric Power Yearbook 2003", Dec. 2003, China Electric Power Publications; State Power Information Network at www.sp.com.cn (Chinese); China power output up 13.4 pct in Dec-official data. 20 January 2004. Reuters News: "In next 3-5 China will experience a high in installed capacity investment", 17 May 2004, Xinhua News Agency (Chinese); Merrill Lynch AsiaPac Utilities Research Estimates

Chart 40: China - annual avg. utilization rates by major fuel types



Source: 1979-2003 from The Chinese Power Industry Today, 2004, Foreign Languages Press; China Electricity Council; State Grid Corp. of China; Merrill Lynch AsiaPac Utilities Research calculations

Table 35: Sensitivity of 5% change in Plant Gross Heat Rate

Project	% Change in Eq. value
Mundra 2640	11.8%
Mundra 1980	9.5%
Tiroda 3300	2.1%
Kawai 1320	10.4%
Total	6.4%

Source: BofAML Global Research

Efficiency of equipment

We have assumed heat rates of 2,250kcal for sub-critical and 2,100kcal for super-critical plants. Should gross heat rate swing 5%, it will change our SOTP value by 6.4% and earnings by 1.5-14.3% for FY13E.

Table 36: Sensitivity of 5% change in Plant Gross Heat Rate

FY13E	Mundra I, II & III	Mundra IV	Tiroda I, II & III	Kawai
Cost of Coal	5.0%	5.9%	5.0%	NA
EBITDA	5.1%	4.4%	1.0%	NA
PAT	10.3%	14.3%	1.5%	NA

Source: BofAML Global Research

Financing risk

Total capex for APL is Rs441bn, of which Rs354bn is likely to be funded through debt. While it has sufficient equity to fund capex till FY12E, internal accruals are critical to fund capex beyond that. This represents the financing risk. The following reduces risk to internal accruals:

- APL's execution track record.
- Strong merchant prices likely till FY12E.
- Power pre-sales to lock in cash flow.
- Ability to source low-cost resources – obtained 11.1mtpa or 48% of fuel requirement as coal linkage in FY10E itself.

Table 37: APL Project Capex Schedule

(Rs mn)	Mundra I & II	Mundra III	Mundra IV	Tiroda I & II	Tiroda III	Kawai	Total
FY08	16,717	7,353	-	577	-	-	24,646
FY09	22,224	10,792	8,770	2,929	-	-	44,714
FY10E	4,559	20,286	22,283	35,108	3,306	10,395	95,937
FY11E	-	17,388	32,429	32,001	13,226	13,860	108,903
FY12E	-	2,141	44,849	24,855	19,838	17,325	109,009
FY13E	-	-	-	-	19,838	20,790	40,628
FY14E	-	-	-	-	9,919	6,930	16,849
Total Cost	43,500	57,960	108,331	95,469	66,128	69,300	440,688

Source: Company, BofAML Global Research

Fuel security challenges – Lohara Coal Mine incident

The Ministry of Coal had allocated APL 170mn tn of coal reserves at Lohara West block for its ensuing 1,980MW coal power project in Maharashtra. However, the Ministry of Environment and Forests (MoEF) had rescinded the allocation of the Lohara West and Extension coal blocks after concerns were raised that the implementation of this mining venture, given its proximity to the Tadoba-Andhari Tiger Reserve (TATR), was likely to cause irrecoverable damage to the rich biodiversity of the locale and also endanger the very existence of the tiger in the reserve. This was despite the mine area allocated to APL in the forest area did not fall under the TATR and only a small portion overlaps the proposed buffer zone outside the reserve area.

APL has reportedly sought the intervention of the Prime Minister's Office (PMO) to ensure allocation of the Sherband Baisi coal block, which it has identified to meet the feedstock requirements of its proposed 3.3MW power plant at Tiroda, Maharashtra. If APL is able to secure coal block within a 300km radius of its Tiroda project, it could reduce the cost of coal by 30-40% vs coal linkage. We have assumed no captive coal block in our fuel mix as yet.

Indonesian coal risk

Market has been worried about three key risks related to Indonesian coal at APL.

- Low mining cost at Bunyu mines
- Ability of Adani group to export coal at US\$18-20/tn in wake of new mining law
- Suitability of high moisture and low calorific value Indonesia coal

Our Indonesia mine visit indicate concerns are exaggerated

Based on our visit to Bunyu mines in Indonesia and discussion with Indonesian coal team, we conclude following:

Low mining cost at Bunyu mines is here to stay

We believe that Adani Enterprises Bunyu mine is endowed with three key natural / competitive advantages, which helps it keep its mining cost low v/s Bumi. These advantages are:

- 1) Low strip ratio – 1.17x in FY09A v/s Bumi at 9.4x,
- 2) Coastal location (on-the shore) with captive jetty - so conveyer loading of coal into barge v/s >100kms of in-land road / river transport done at many Indo mines and
- 3) Low acquisition cost.

We expect the mining cost at Bunyu mine may not rise substantially in future even when strip ratio worsens as

- 1) Mechanize mining with continuous miner from FY12 onwards, which will mine 5mtpa at 1500 tn/hr speed. This technology is said to be deployed first time in Indonesian mining industry.
- 2) AEL is unlikely to increase trip ratio >3x to keep costs viable of relatively low value coal.

Table 38: PT Adani Global (Bunyu) vs PT Bumi Resources

	PT Bumi CY08	Bunyu FY09
OB Removed (mn bcm)	496.00	1.19
Coal Mined (mn T)	53.00	1.02
Strip Ratio (bcm / ton)	9.36	1.17
Cash Costs (US\$ / ton)	43.83	6.75
Local Barging cost (US\$ / ton)	NA	3.00

Source: Company, PT Bumi Resources, BofAML Global Research

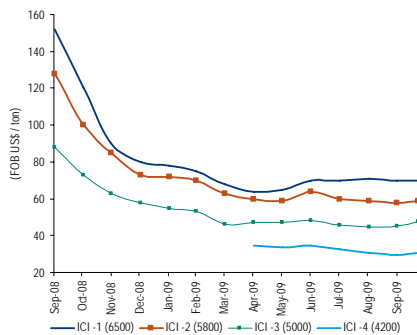
A sweet mine but relatively low kcal as well

Export prices at US\$18-20/tn - low calorific value deserves a lower price AEL case in exporting coal from Bunyu at US\$18-20/tn is that the mine has relatively lower calorific value coal with higher moisture, which deserves to be at a steeper discount to premium coal.

Also Bunyu coal is not in ICI but its relatively low export pricing appear rational based on steepness of price fall for lower calorific value.

Importantly, the pricing of lower calorific coal is far more stable in volatile coal markets (see chart 41), hence, future risk of material price hike is also minimal. E.g: Typically we observe that ICI 4 coal (4200kcal) trades at a steep 50% discount for ~30% lower calorific value. ICI 1 coal price touched

Chart 41: Indonesian Coal Index



Source: Coalindo, BofAML Global Research

Table 39: Indonesian Coal Indices incorporating assessments by Argus Media & PT Coalindo

Grade (kcal)	Grade (kcal)	% change	Basis	Price (US\$/t)	% change
ICI - 1	6500		GAR	70.31	
ICI - 2	5800	-10.8%	GAR	58.32	-17.1%
ICI - 3	5000	-13.8%	GAR	48.44	-16.9%
ICI - 4	4200	-16.0%	GAR	30.03	-38.0%

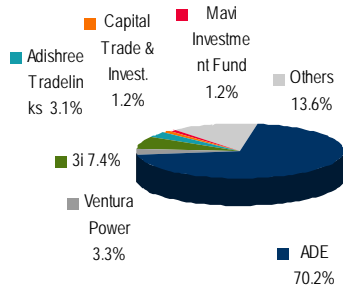
Source: Coalindo

Background

A part of the Adani Group - vertically integrated in power

APL is a part of the Adani Group, which seeks to be vertically integrated in power generation and trading. The Adani Group has active or planned operations in coal mining, coal import, shipping, power generation, power transmission and power trading.

Chart 42: APL Shareholding on Sep-09



Source: Company, BofAML Global Research

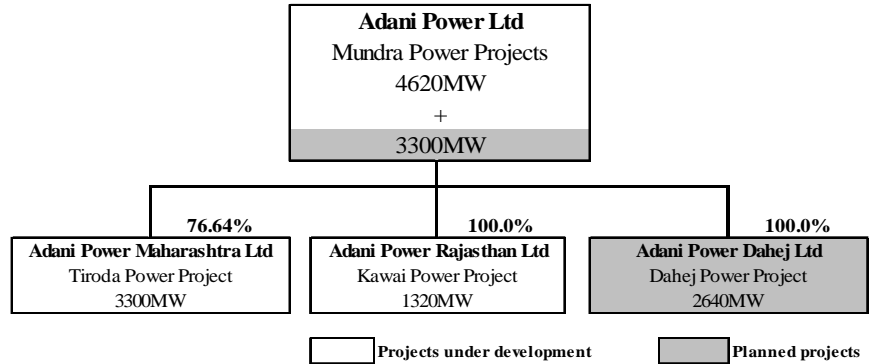
Chart 43: Adani Group – Across The Power Value Chain



Source: Company

APL is implementing projects with a total capacity of 4,620MW at Mundra as developer and is also the holding company for Adani Group's power SPVs as shown in the chart below.

Chart 44: APL - Likely Corporate Structure



Source: Company, BofAML Global Research

Note: APL has entered into a shareholders' agreement with Millennium Developers Private Limited in connection with 26% of the equity interest in the Tiroda SPV. APL has received Rs100mn of share application money but no shares have been allotted as yet.

Table 40: Adani Power - Project Summary

Project Name	Location	Installed Capacity (MW)	Technology	Land (Ha.)	Procurement				Off-take Arrange-ment	Commissioning Scheduled 1st unit / Project	Estimated Project Cost (Rs mn)
					Status	Supplier	Fuel Supply Status				
Mundra I and II	Gujarat	1320	Coal fired (sub-critical)	Leased 294 Hectares	BTG & BoP contracts entered	a) Boiler - Beijing Babcock Wilcox b) Turbine / Generator - Beijing Bejong	Coal Supply Agreement with ADE for 4MTPA	Long term PPA for 1000MW entered with GUVNL @ Rs2.76 - 3.42 / kWh	Oct-2009 / Jul-2010	43500	
Mundra III	Gujarat	1320	Coal fired (super-critical)	Part of above land	EPC contracts entered	a) Boiler - Harbin Power b) Turbine / Generator - Dongfang	Coal Supply Agreement with ADE for 4MTPA	a) Long term PPA for 1000MW entered with GUVNL @ Rs2.35 / kWh & b) Merchant sale agreement upto 221MW entered with ADE	Mar-2011 / Jul-2011	57960	
Mundra IV	Gujarat	1980	Coal fired (super-critical)	Part of above land	EPC contracts entered	a) Boiler - Harbin Power b) Turbine / Generator - Dongfang	a) Coal linkage - Provisional LOA for 6.4mmt from MCL for 1366MW & b) Coal Supply Agreement with ADE for 6.5MTPA	Long term PPAs for 1424MW entered with UHBVNL and DHBVNL @ Rs2.35 - 3.26 / kWh	Oct-2011 / May-2012	108331	
Tiroda I & II	Maharashtra	1980	Coal fired (super-critical)	Leased 210 Hectares & applied for additional 192 Hectares	BTG & BoP contracts entered	BTG - Shanghai Electric	a) Coal Linkages - LOA for 4.75mmt (SECL 2.5mmt & WCL 2.2mmt) for 1180MW b) Applied for additional coal linkages	Long term PPA with MSEDCL for 1320MW @ Rs2.64/kWh	Nov-2011 / Jun-2012	95469	
Tiroda III	Maharashtra	1320	Coal fired (super-critical)	Part of above land	Bids invited in Sept-09	NA	Applied for coal linkages	Qualified for 1200MW supply to MSEDCL. LOA expected in 4QFY10	Jul-2013 / Oct-2013	66128	
Kawai	Rajasthan	1320	Coal fired (super-critical)	579 Hectares	Bids invited - Contract to be awarded by Dec-09	NA	Applied for Coal Linkage	Long Term PPA with RRVUNL for 1200MW	Aug-2013 / Nov-2013	69300	
Total		9240								440,688	

Source: Company, BofAML Global Research

Consolidated Financials

Table 41: Adani Power - Consolidated Profit & Loss Statement

(Rs mn)	FY08	FY09	FY10E	FY11E	FY12E
Power Sold (mn kWh)	0	0	1,273	8,865	23,225
Electricity Sale	-	-	5,027	27,161	81,056
- Rs / kWh	0.00	0.00	3.95	3.06	3.49
CER's sale	-	-	-	50	1,041
Income from Ash sale	-	-	9	70	555
Total Revenue	-	-	5,037	27,281	82,652
- Rs / kWh	-	-	3.96	3.08	3.56
Coal cost	-	-	1,683	10,978	25,791
- % of Total Revenue	NA	NA	33.4%	40.2%	31.2%
Fuel oil cost	-	-	64	464	1,230
- % of Total Revenue	NA	NA	1.3%	1.7%	1.5%
O&M costs	-	55	162	1,108	3,017
- % of Total Revenue	NA	NA	3.2%	4.1%	3.6%
Total Operating Expenses	-	55	1,909	12,550	30,038
EBITDA	-	(55)	3,127	14,731	52,614
- EBITDA Margin	NA	NA	62.1%	54.0%	63.7%
Depreciation	-	-	385	1,750	5,905
EBIT	-	(55)	2,742	12,981	46,709
- EBIT Margin	NA	NA	54.4%	47.6%	56.5%
Interest expenses	-	-	573	3,641	11,397
Interest Income	-	-	-	1,184	1,032
PBT	-	(55)	2,170	10,524	36,344
- PBT Margin	NA	NA	43.1%	38.6%	44.0%
Income Tax	-	-	369	1,789	6,505
Rec. PAT Pre-Minority	-	(55)	1,801	8,735	29,839
- Rec. PAT Margin - Pre Minority	NA	NA	35.8%	32.0%	36.1%
Minority Interest	-	(6)	-	-	1,611
Rec. PAT Post-Minority	-	(50)	1,801	8,735	28,227
- Rec. PAT Margin - Post Minority	NA	NA	35.8%	32.0%	34.2%
Exceptional Income / (Exp)	-	-	-	-	-
Rep. PAT	-	(50)	1,801	8,735	28,227

Source: Company, BofAML Global Research

Table 42: Adani Power - Consolidated Balance Sheet

(Rs mn)	FY08	FY09	FY10E	FY11E	FY12E
Gross Block	184	3,472	27,986	72,708	245,378
Less: Accumulated Depreciation	13	104	489	2,239	8,144
Net Block	171	3,368	27,498	70,469	237,234
CWIP	24,463	65,889	140,437	209,372	145,884
Investments	532	0	408	408	408
Current Assets ex cash	1,762	4,163	770	3,838	7,686
Cash Balance	1,921	5,585	28,549	14,683	21,550
Total Current Assets	3,683	9,749	29,319	18,521	29,236
Current Liabilities	4,361	5,620	437	2,860	6,755
Net Current Assets	(677)	4,129	28,882	15,660	22,481
Total Assets	24,489	73,387	197,225	295,910	406,007
Share Capital	7,431	18,420	21,801	21,801	21,801
Share Premium	6,979	4,517	35,071	35,071	35,071
General Reserves	(33)	(147)	1,654	10,390	38,617
Net Worth	14,377	22,790	58,526	67,261	95,489
Total Loan Funds	10,112	49,897	136,525	224,122	302,057
Minority Interest	-	699	2,174	4,526	8,461
Total Liabilities	24,489	73,387	197,225	295,910	406,007

Source: Company, BofAML Global Research

Table 43: Adani Power -Consolidated Cash Flow Statement

(Rs mn)	FY08	FY09	FY10E	FY11E	FY12E
PAT before Minority interest	-	(55)	1,801	8,735	29,839
Add: Depreciation	-	-	385	1,750	5,905
Net change in Working Capital	2,598	(1,142)	(1,789)	(644)	47
Cash Flow from Operations	2,598	(1,198)	397	9,841	35,790
Capex/ Disposals	(24,633)	(44,623)	(99,062)	(113,657)	(109,182)
Change in Investments	(532)	532	(408)	(0)	-
Cash Flow from Investments	(25,166)	(44,091)	(99,471)	(113,657)	(109,182)
Change in Share Capital	6,934	10,989	3,381	-	0
Change in Reserves & Surplus	6,946	(2,526)	30,554	-	-
Dividend paid	-	-	-	-	-
Change in Debt	10,112	39,785	86,628	87,598	77,935
Change in minority interest	-	705	1,475	2,352	2,324
Others	-	-	-	-	-
Cash Flow from Financing	23,992	48,953	122,037	89,950	80,259
Change in Cash	1,424	3,664	22,964	(13,866)	6,867
Opening Cash balance	497	1,921	5,585	28,549	14,683
Closing Cash balance	1,921	5,585	28,549	14,683	21,550

Source: Company, BofAML Global Research

Table 44: Adani Power - Consolidated Key Ratio & Valuations

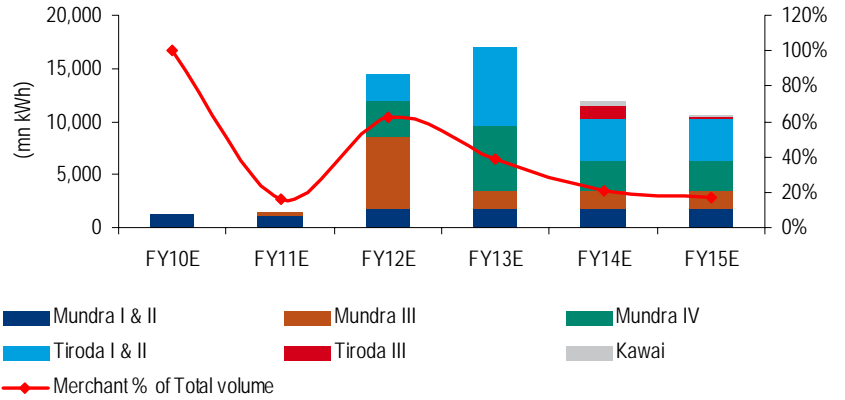
	FY08	FY09	FY10E	FY11E	FY12E
No. of Shares o/s (mn)	552	1,842	2,180	2,180	2,180
Price (Rs)	99	99	99	99	99
Market Cap (Rs mn)	54,380	181,435	214,739	214,739	214,739
Rec. EPS (Rs)	0.0	0.0	0.8	4.0	12.9
PER (x)	NA	NA	119.2	24.6	7.6
Cash EPS (Rs)	0.0	0.0	1.0	4.8	15.7
Cash PER (x)	NA	NA	98.2	20.5	6.3
BVPS (Rs)	23.3	12.4	26.8	30.9	43.8
P/BV (x)	4.22	7.96	3.67	3.19	2.25
Net Worth (Rs mn)	12,877	22,790	58,526	67,261	95,489
Net Debt (Rs mn)	7,658	44,311	107,567	209,031	280,099
EV (Rs mn)	62,039	225,746	322,307	423,770	494,838
EV/EBITDA (x)	NA	NA	103.1	28.8	9.4
Net D/E (x)	0.6	1.9	1.8	3.1	2.9
Gearing Ratios					
Debt /Capitalization (x)	0.4	0.7	0.7	0.8	0.7
Net Debt /Capitalization (x)	0.3	0.7	0.6	0.7	0.7
EBITDA / Net Interest (x)	NA	NA	5.5	6.0	5.1
EBIT / Net Interest (x)	NA	NA	4.8	5.3	4.5
Net Debt / EBITDA (x)	NA	NA	34.4	14.2	5.3
Dupont Analysis:					
- Net profit / EBIT	NA	NA	65.7%	67.3%	60.4%
- EBIT/Sales	NA	NA	54.4%	47.6%	56.5%
- Sales / Avg. Assets	NA	NA	3.7%	11.1%	23.6%
- Assets / Network	170.3%	263.3%	332.8%	392.0%	431.3%
RoE	0.0%	-0.3%	4.4%	13.9%	34.7%
RoCE	NA	-0.1%	1.7%	4.8%	11.2%

Source: Company, BofAML Global Research

India Merchant Power Market

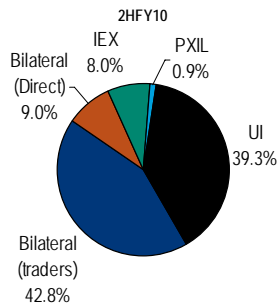
Adani Power is designed to capitalize on near term 'super-normal' returns in the Indian merchant power market and then shift to long term PPA market when 'excess returns' normalize

Chart 45: Adani Power Merchant Volume



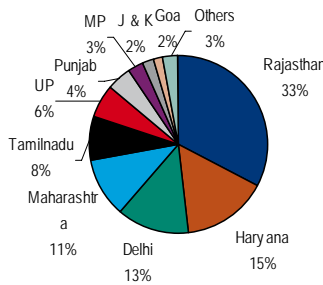
Source: Company, BofAML Global Research

Chart 46: India Merchant Power Market 1H10



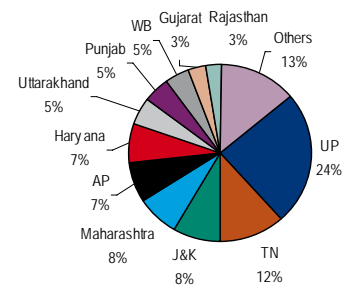
Source: Ministry of Power, BofAML Global Research

Chart 47: Power purchase by states through bilateral (Oct-09)



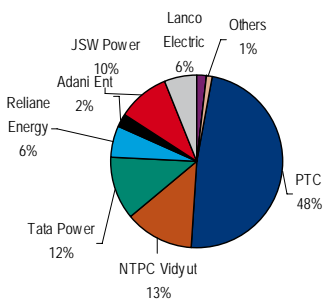
Source: Ministry of Power, BofAML Global Research

Chart 48: Power imports by states through UI (Oct-09)



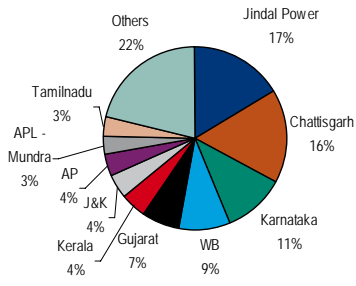
Source: Ministry of Power, BofAML Global Research

Chart 49: Market Share of traders (Oct-09)



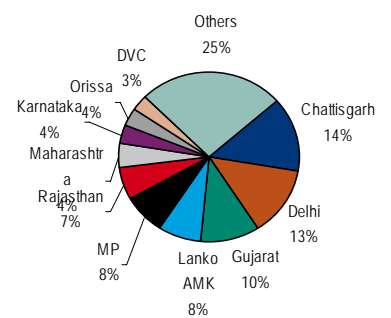
Source: Ministry of Power, BofAML Global Research

Chart 50: Power sales by states through bilateral (Oct-09)



Source: Ministry of Power, BofAML Global Research

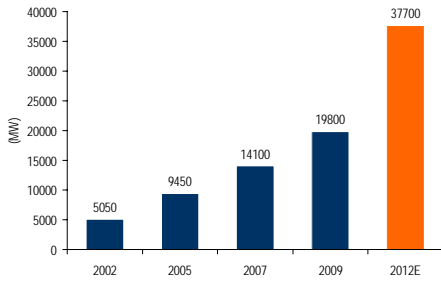
Chart 51: Power export by states through UI (Oct-09)



Source: Ministry of Power, BofAML Global Research

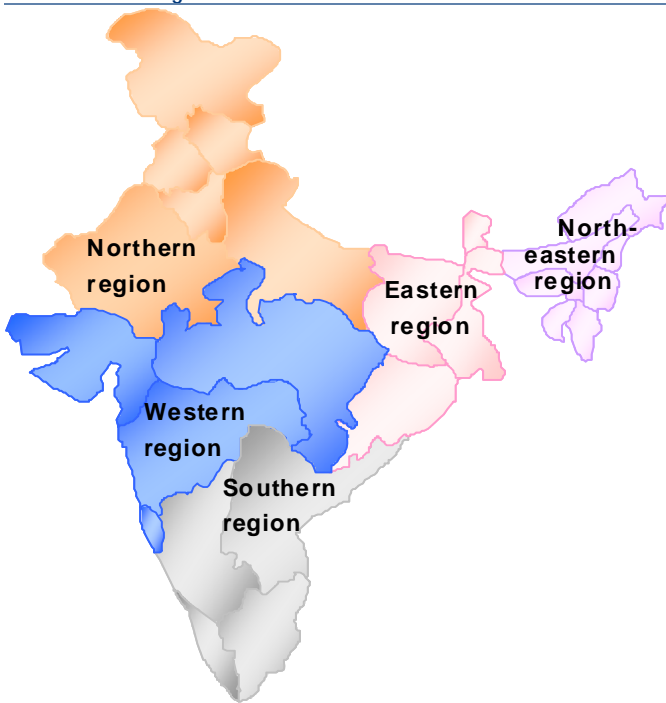
29 January 2010

Chart 52: India's Inter-Regional Grid Capacity



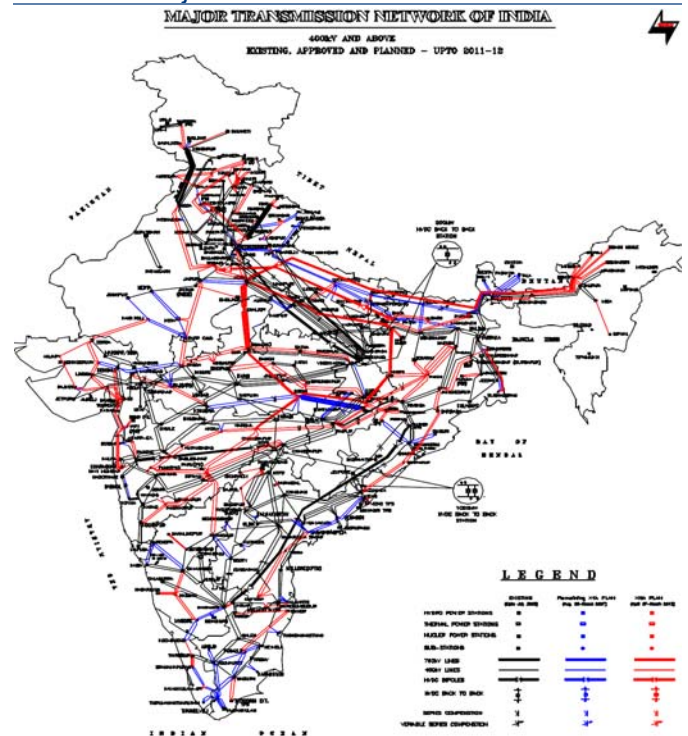
Source: PGCIL, BofAML Global Research

Chart 53: India Regional Grids



Source: Company

Chart 54: India Major Transmission line Network



Source: Ministry of Power

Price objective basis & risk

Adani Power Ltd. (XADPF)

Our PO of Rs131 is based on Sum-of-the-part valuation basis. We have valued the Parent capacity of 4620MW Mundra project at Rs55 per share based on DCF. We have valued the 74% stake in 3300MW Tiroda project at Rs67 per share on DCF basis. The 100% stake in 1320MW Kawai project is valued at Rs9 per share on DCF basis. Key Risks: Project execution, financing, imported coal exposes it to potential country, currency and freight risks, Chinese labour, denial of SEZ benefits, Infra bottleneck and fall in power rates on potential match of demand-supply of power in India.

Analyst Certification

I, Bharat Parekh, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

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India - Engineering/Construction/Utilities Coverage Cluster

Investment rating	Company	BofAML ticker	Bloomberg symbol	Analyst
BUY	Adani Power Ltd.	XADPF	ADANI IN	Bharat Parekh
	Bharat Heavy	BHHEF	BHEL IN	Bharat Parekh
	Gujarat State Petronet Ltd	GJRSE	GUJS IN	Vidyadhar Ginde
	GVK Power & Infrastructure Ltd.	GVPWF	GVKP IN	Manish Sarawagi
	IVRCL Infrastruc	IIFRF	IVRC IN	Bharat Parekh
	Jaiprakash	JPRKF	JPA IN	Bharat Parekh
	Jaiprakash Power Ventures Ltd.	XJSHF	JPVL IN	Bharat Parekh
	Lanco Infratech Ltd.	LNIFL	LANCI IN	Manish Sarawagi
	Larsen & Toub -G	LTORF	LTOD LI	Bharat Parekh
	Larsen & Toubro	LTOUF	LT IN	Bharat Parekh

29 January 2010

India - Engineering/Construction/Utilities Coverage Cluster

Investment rating	Company	BofAML ticker	Bloomberg symbol	Analyst
	Mundra Port SEZ	XMANF	MSEZ IN	Bharat Parekh
	Nagarjuna Const	NGRJF	NJCC IN	Bharat Parekh
	NCC-GDR	XAKUF	NJGR LX	Bharat Parekh
	Reliance Infrastructure	RCTDF	RELI IN	Bharat Parekh
NEUTRAL				
	Gujarat Inds	GUJIF	GIP IN	Bharat Parekh
	Neyveli Lignite	NEYVF	NLC IN	Bharat Parekh
	Tata Pwr. Co.	XTAWF	TPWR IN	Bharat Parekh
UNDERPERFORM				
	ABB	ABVFF	ABB IN	Bharat Parekh
	Gail India	XGLAF	GAIL IN	Vidyadhar Ginde
	Gail Limited - G	GAILF	GAID LI	Vidyadhar Ginde
	GMR Infrastructure Ltd.	GMRLF	GMRI IN	Manish Sarawagi
	NTPC Ltd	NTHPF	NATP IN	Bharat Parekh
	Suzlon Energy	SZEYF	SUEL IN	Bharat Parekh
RVW				
	Indraprastha Gas	IAGSF	IGL IN	Vidyadhar Ginde

*iQmethod*SM Measures Definitions

Business Performance	Numerator	Denominator
Return On Capital Employed	$\text{NOPAT} = (\text{EBIT} + \text{Interest Income}) * (1 - \text{Tax Rate}) + \text{Goodwill Amortization}$	Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill
Return On Equity	Net Income	Shareholders' Equity
Operating Margin	Operating Profit	Sales
Earnings Growth	Expected 5-Year CAGR From Latest Actual	N/A
Free Cash Flow	Cash Flow From Operations – Total Capex	N/A
Quality of Earnings		
Cash Realization Ratio	Cash Flow From Operations	Net Income
Asset Replacement Ratio	Capex	Depreciation
Tax Rate	Tax Charge	Pre-Tax Income
Net Debt-To-Equity Ratio	Net Debt = Total Debt, Less Cash & Equivalents	Total Equity
Interest Cover	EBIT	Interest Expense
Valuation Toolkit		
Price / Earnings Ratio	Current Share Price	Diluted Earnings Per Share (Basis As Specified)
Price / Book Value	Current Share Price	Shareholders' Equity / Current Basic Shares
Dividend Yield	Annualised Declared Cash Dividend	Current Share Price
Free Cash Flow Yield	Cash Flow From Operations – Total Capex	Market Cap. = Current Share Price * Current Basic Shares
Enterprise Value / Sales	$\text{EV} = \text{Current Share Price} * \text{Current Shares} + \text{Minority Equity} + \text{Net Debt} + \text{Other LT Liabilities}$	Sales
EV / EBITDA	Enterprise Value	Basic EBIT + Depreciation + Amortization

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Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	70	41.18%	Buy	45	70.31%
Neutral	48	28.24%	Neutral	24	54.55%
Sell	52	30.59%	Sell	17	37.78%

Investment Rating Distribution: Global Group (as of 01 Jan 2010)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	1699	50.78%	Buy	904	58.82%
Neutral	841	25.13%	Neutral	491	65.03%
Sell	806	24.09%	Sell	368	49.80%

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster*
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

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