

MINING | EQUIPMENT MANUFACTURING | POWER GENERATION | POWER TRANSMISSION | POWER TRADING

**JSW** Energy  
*Lighting up a billion dreams*

THE **POWER**  
YOU DESERVE!





**SECTOR UPDATE**

**KEY HIGHLIGHTS: FY 2011**

**FINANCIAL RESULTS**

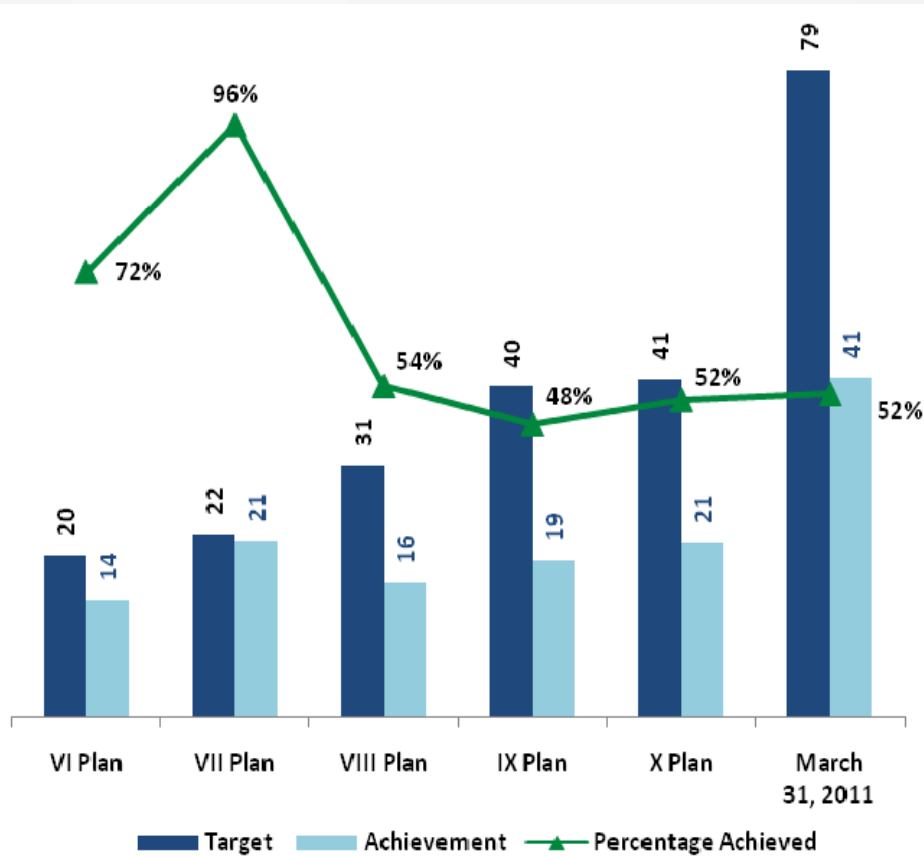
**PROJECT UPDATE**

**STRATEGIC PRIORITIES**

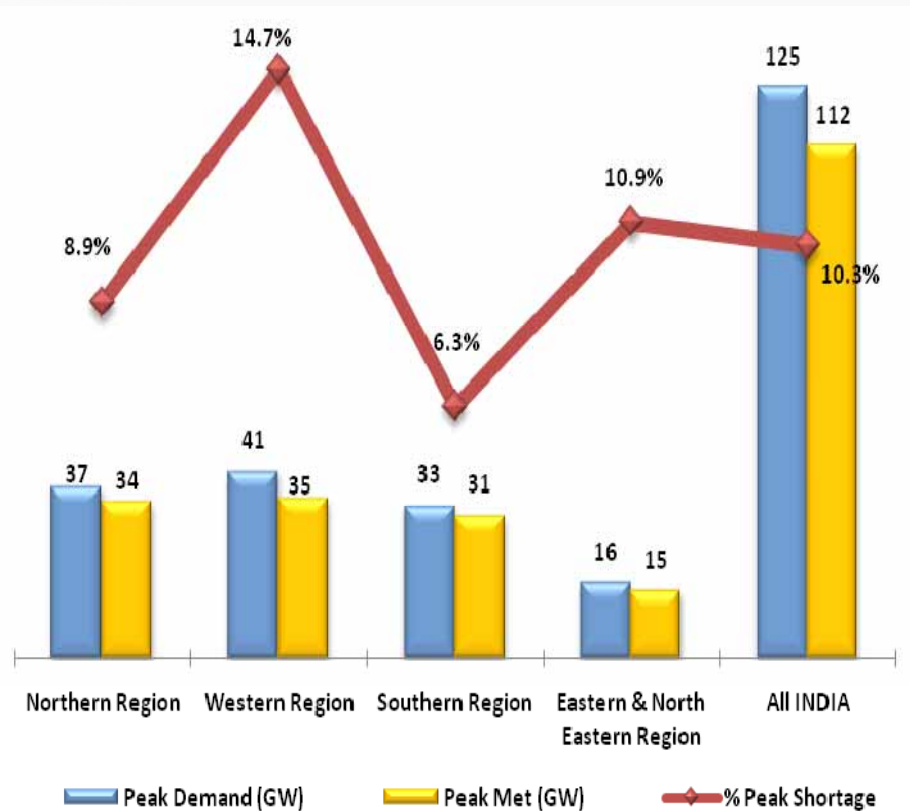
**SITE PHOTOGRAPHS**



## Capacity Build-up (GW)



## Peak Demand/Supply (GW) FY 2011

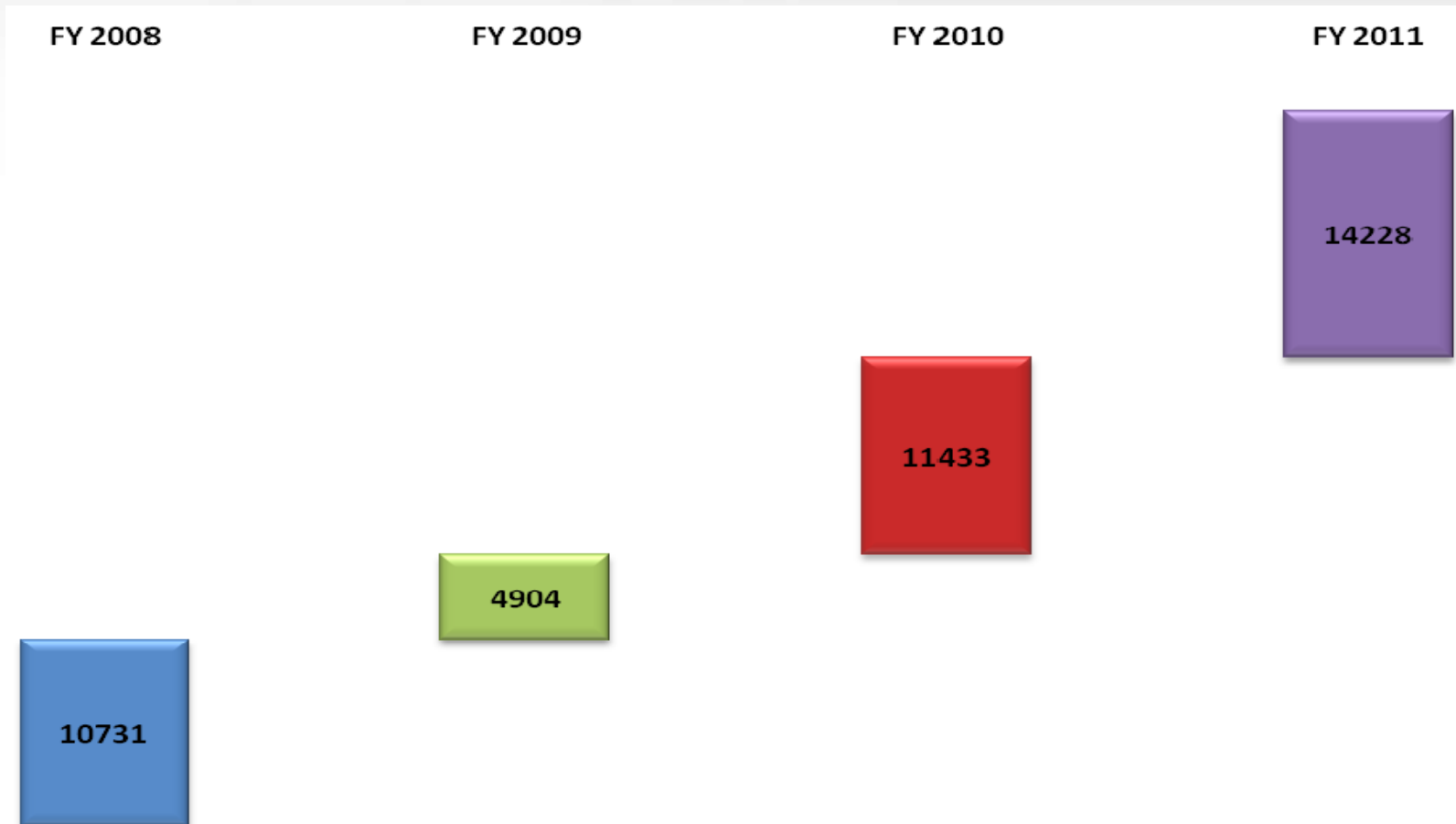


**India: World's 6<sup>th</sup> largest energy consumer yet a power deficit country**

**Deficit in power availability is a significant impediment to economic growth**



## CAPACITY ADDITION DURING XI PLAN PERIOD

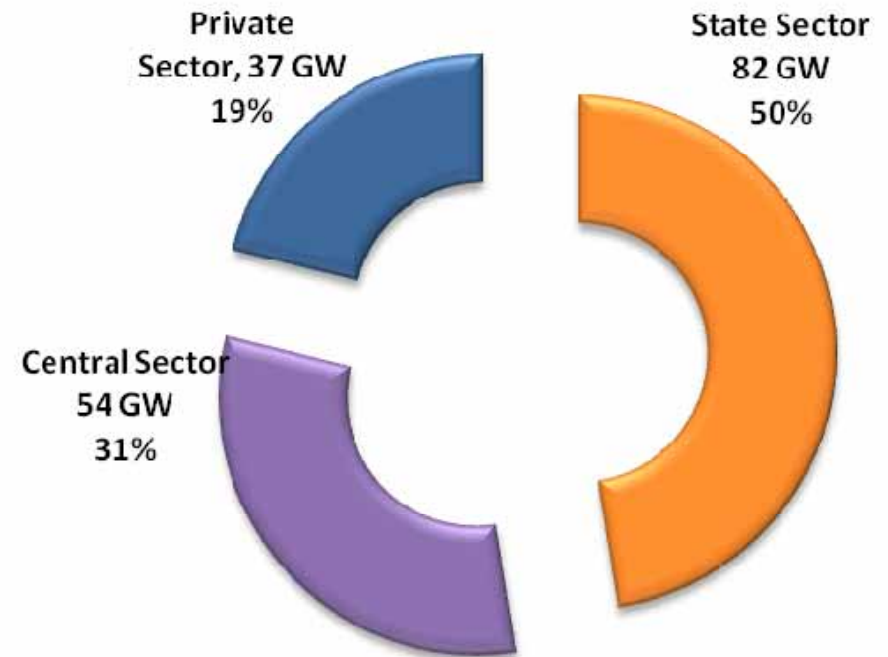
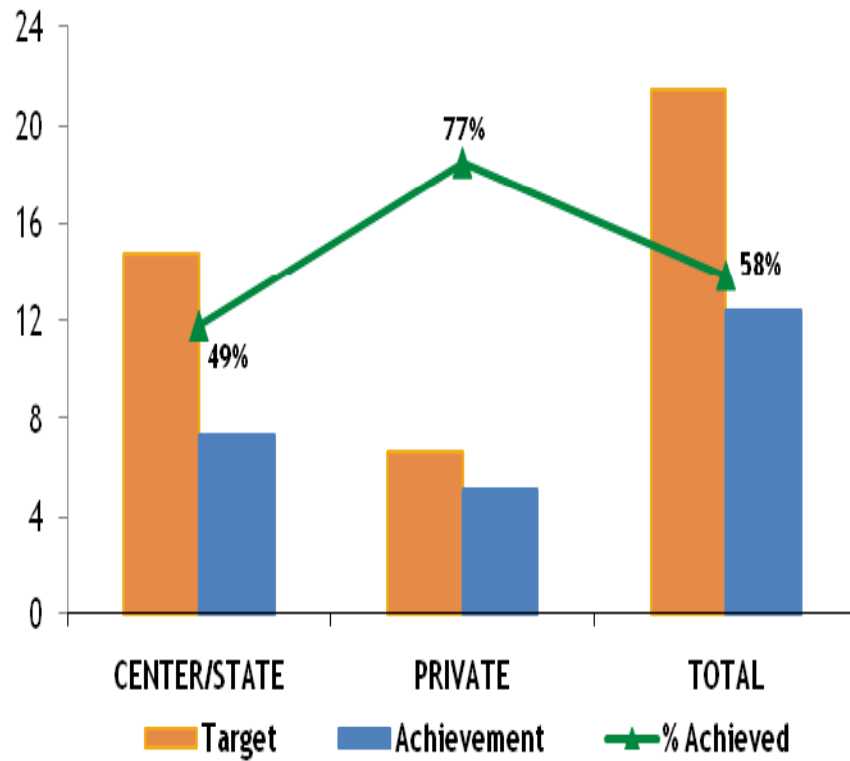


**Capacity Addition during XI Plan : 41,296 MW**  
**Highest Annual Capacity Addition in FY 2011**



**Target v/s Achievement (GW) FY 2011**

**Total Capacity (GW) as at March 31, 2011**

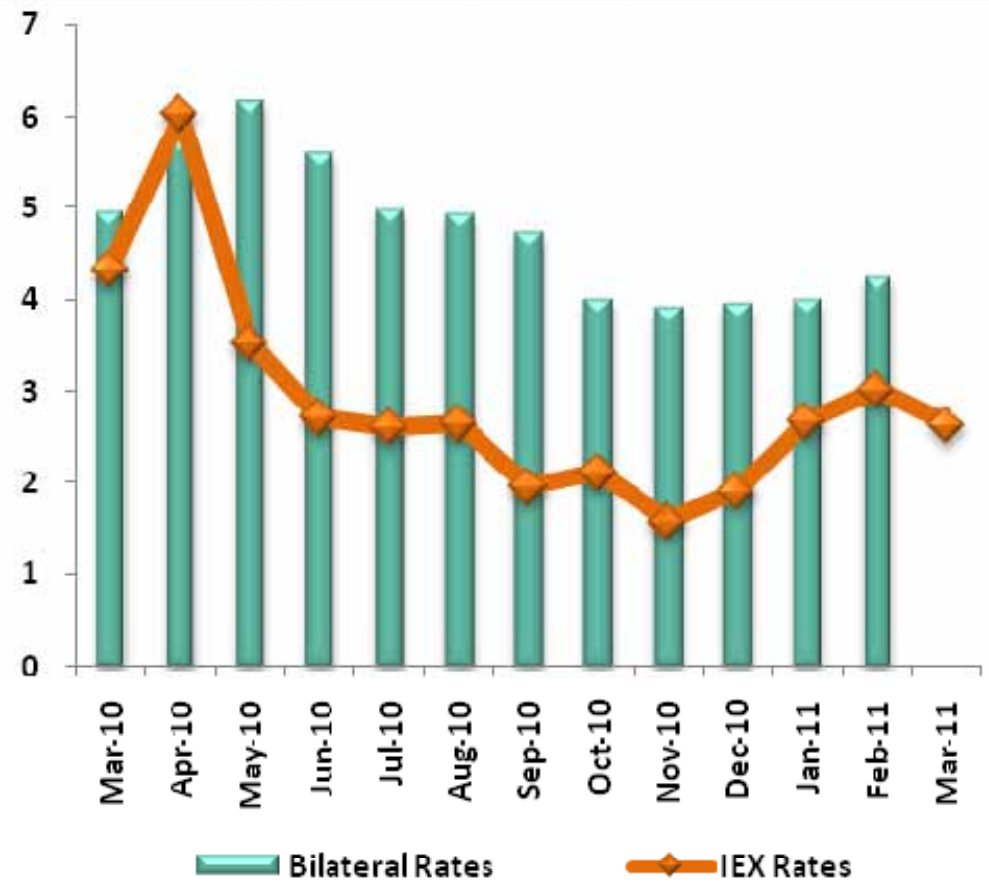
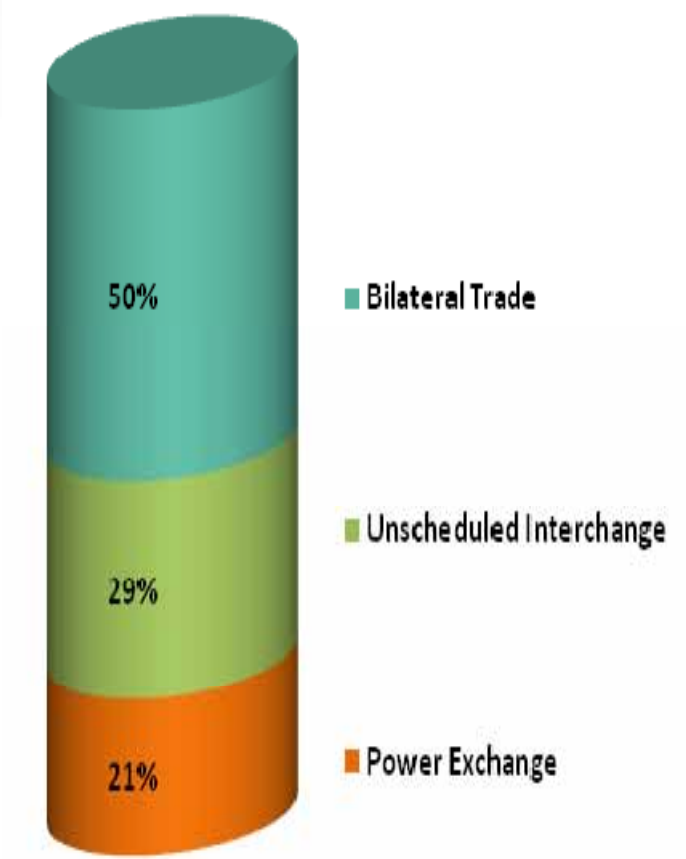


**Total Capacity : 174 GW**



## Power Trading Market Constituents (FY 11)

## Price Movement (Rs/ kwh)



### BILATERAL TRADE

A significant constituent of the power trading market  
Provides stability to price fluctuations

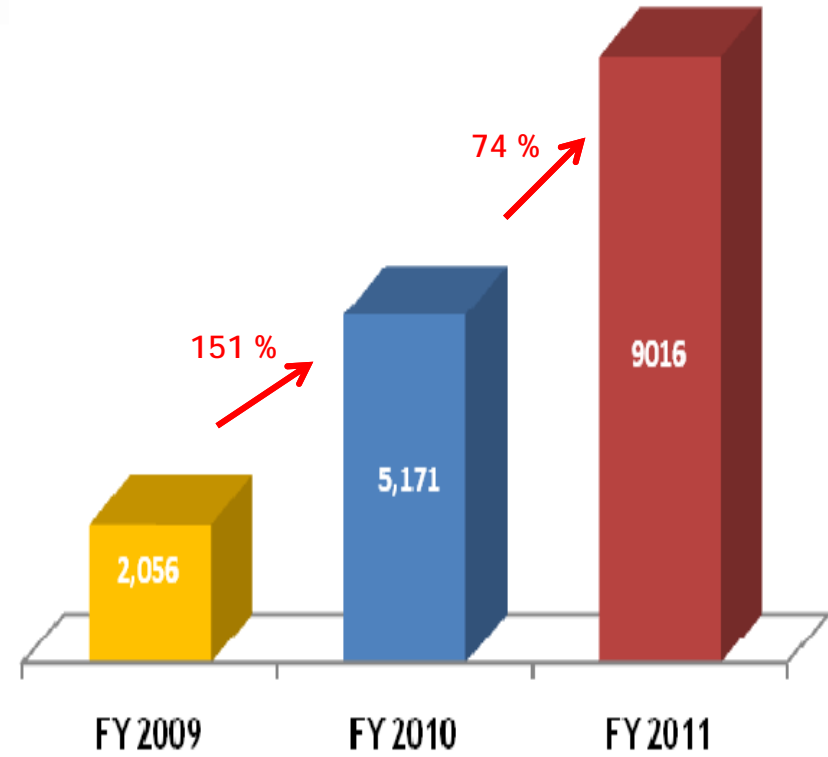
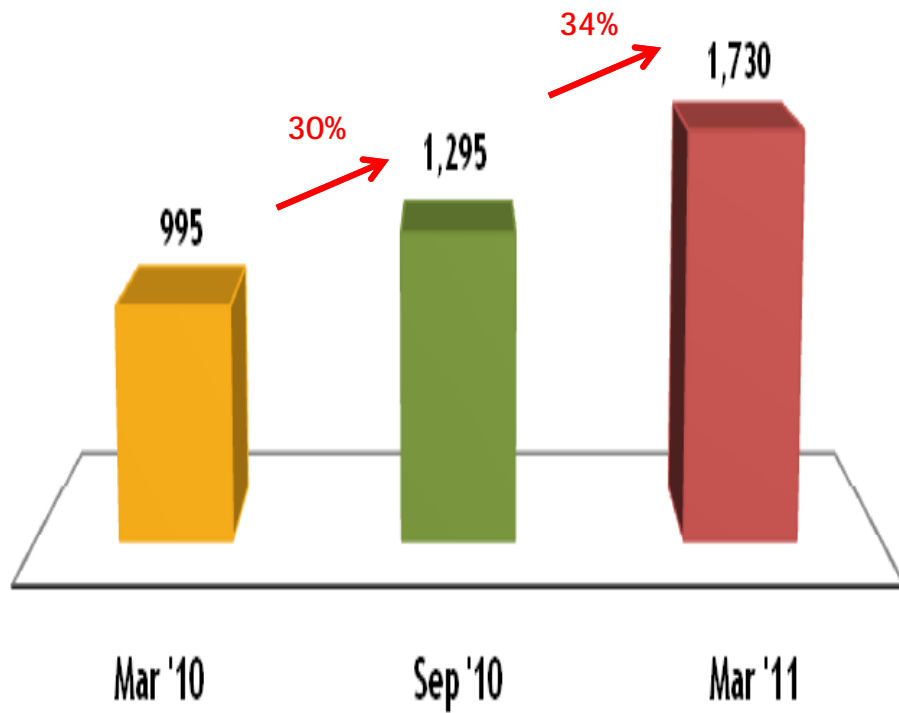
# KEY HIGHLIGHTS: FY 2011





## Capacity Growth (MW)

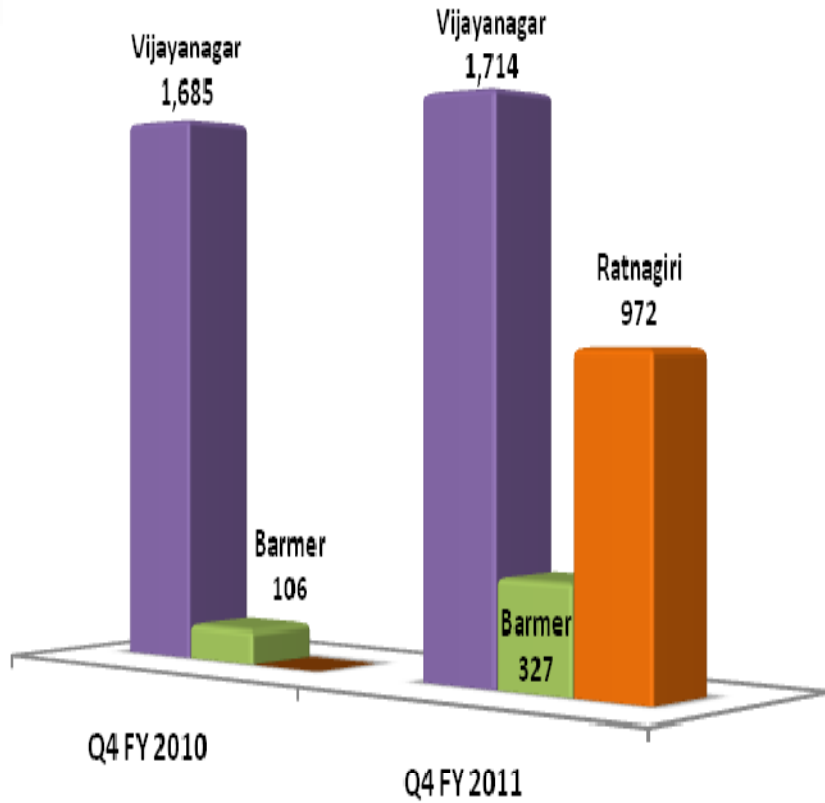
## Net Generation Growth (Mu)



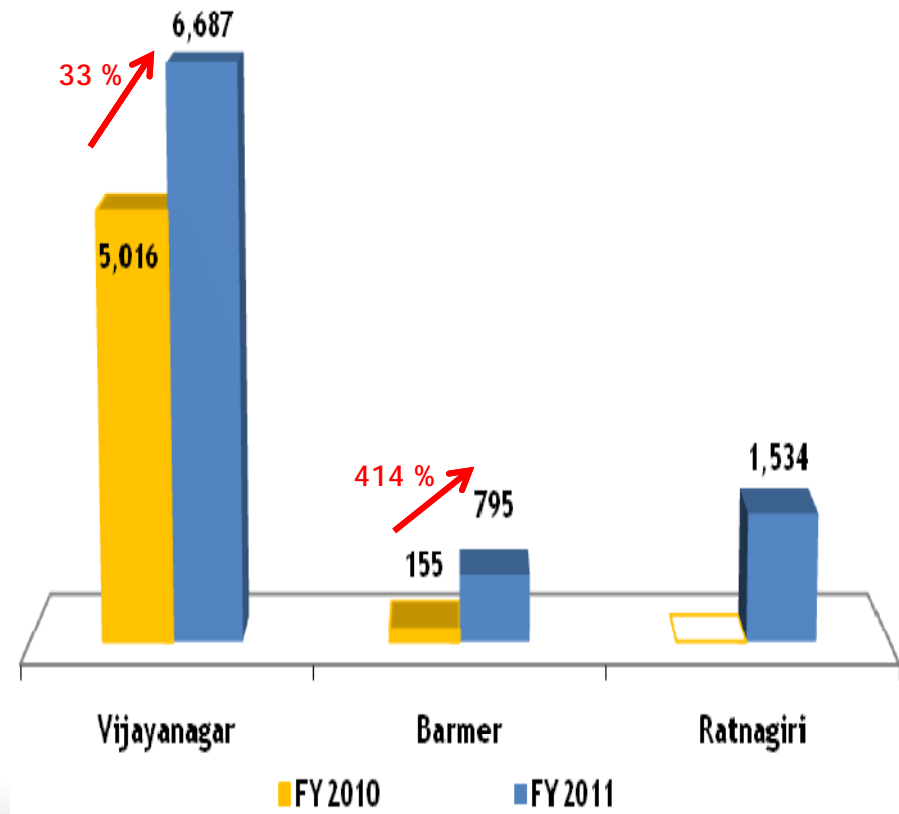




## QoQ Net Generation (Mu)

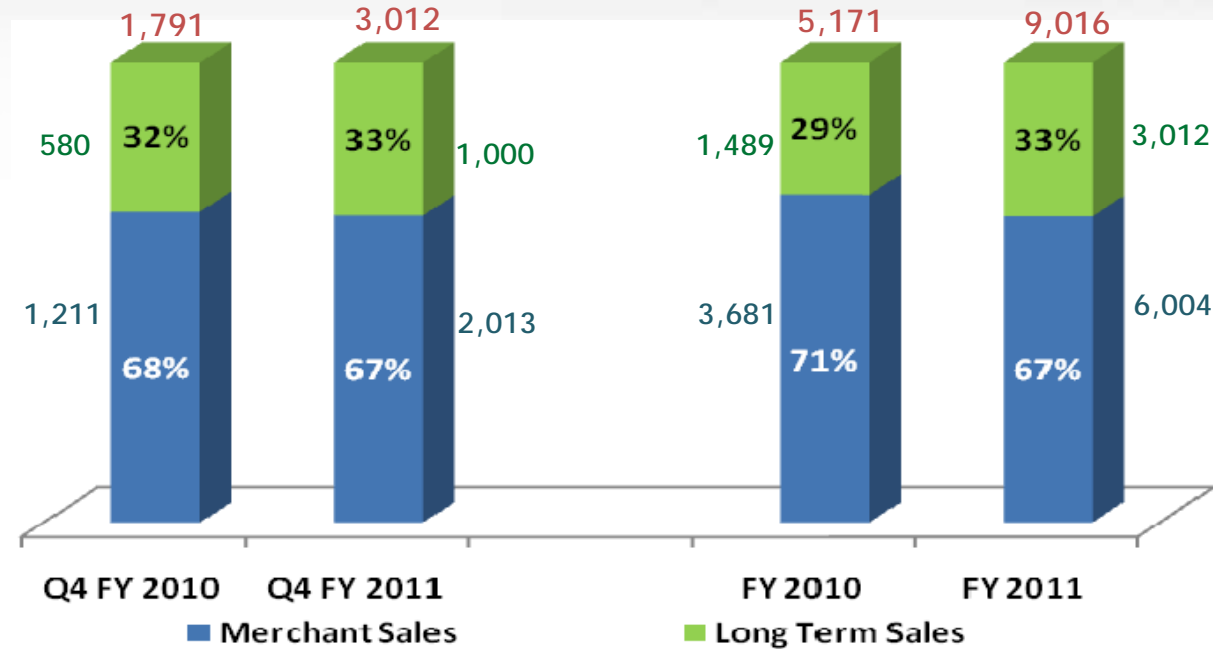


## YoY Net Generation (Mu)





## Sales Mix ( Million kwh)



Realisation ` per kwh	Q4 FY 2010	Q4 FY 2011	FY 2010	FY 2011
Merchant Realisation	4.79	4.71	4.97	4.95
Long Term Realisation	3.53	3.71	3.41	3.63
Average Realisation	4.25	4.38	4.44	4.49

# FINANCIAL RESULTS



# FINANCIAL HIGHLIGHTS



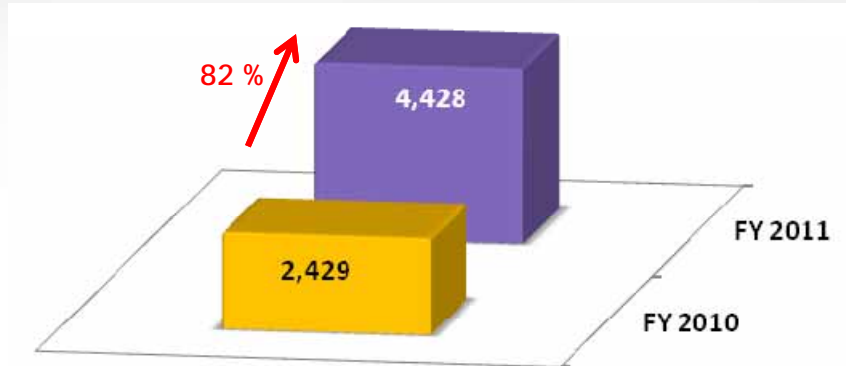
**Q4 FY 2010**

**Q4 FY 2011**

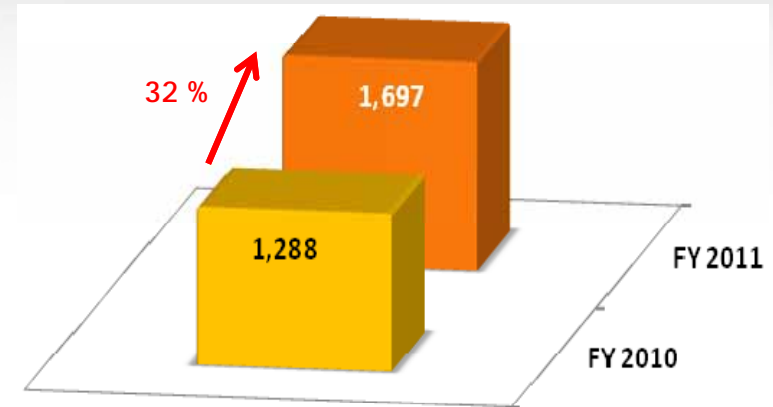
843	Turnover (₹ Crores)	1,459
389	EBITDA (₹ Crores)	453
46%	EBITDA (%)	31 %
86	Interest (₹ Crores)	123
47	Depreciation (₹ Crores)	90
256	PBT (₹ Crores)	240
273	PAT (₹ Crores)	206
1.66	EPS (₹)	1.25



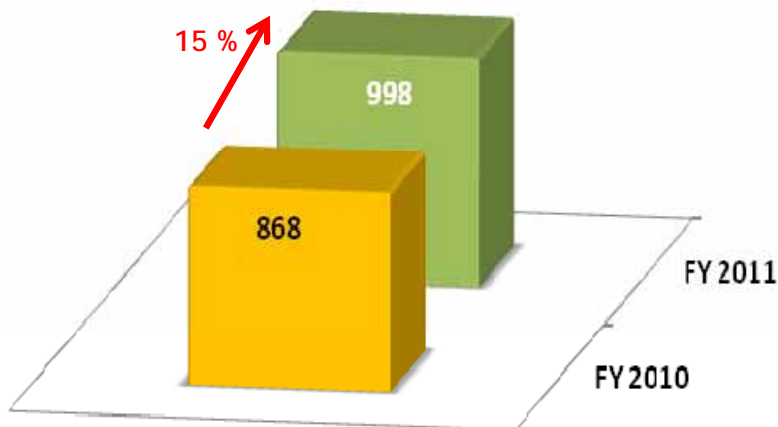
## Turnover (Rs. Crores)



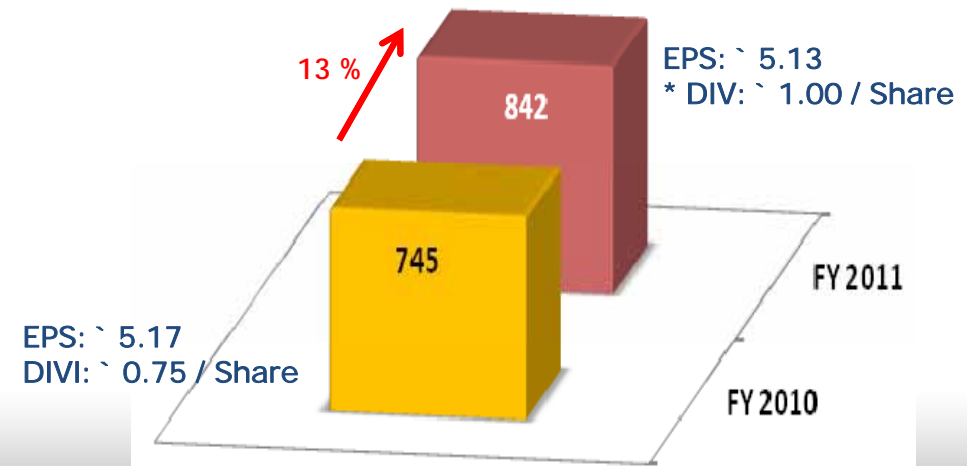
## EBITDA (Rs. Crores)



## PBT (Rs. Crores)



## PAT , EPS & DIVIDEND





	31 <sup>st</sup> March 2010	31 <sup>st</sup> March 2011
Net Worth (₹ Crores)	4,780	5,676
Debt (₹ Crores)	7,870	9,638
Net Fixed Assets (₹ Crores) *	11,598	14,129
Debt Equity Ratio (Times)	1.65	1.70
Weighted Average Cost of Debt	11.51 %	11.02 %

\*Including CWIP

## UTILISATION OF IPO PROCEEDS



PARTICULARS	₹ CRORES	
Utilisation	Project Utilisation as per Prospectus	Actual Amount Spent upto March 31, 2011
Part Finance for Identified Projects, Share Issue Expenses & General Corporate Purpose	2230	1,485
Repayment of Corporate Debt	470	470
Unutilised Amount invested in MF/ Bank FD/ Utilised for reduction of Overdraft	-	745
<b>Gross Proceeds received from IPO</b>	<b>2,700</b>	<b>2,700</b>

# PROJECT UPDATES







## RAJ WEST POWER LTD. I



### Project Details

<b>Gross Capacity</b>	<b>1,080 MW (8 x 135)</b>
<b>Technology</b>	<b>Sub-critical Captive Lignite based TPP</b>
<b>Fuel Linkage</b>	<b>FSA with BLMCL (49% JV) for supply of lignite from captive lignite mines of BLMCL</b>
<b>Water Allocation</b>	<b>Allocation from IGNP</b>
<b>Power Off take</b>	<b>Long term arrangement for entire capacity with state Government distribution utilities</b>
<b>Project Cost</b>	<b>~ 6,085Cr\$ Debt / Equity: 75:25 Amt spent till Mar 31, 2011: ~ 5,150 Cr\$</b>
<b>Commissioning</b>	<b>Unit I &amp; II Operational Entire project completion in FY 12</b>

### Status Update

- **Unit III commissioning in May 2011**
- **Unit IV commissioning in June 2011**



## JSW ENERGY Ltd- RATNAGIRI WORKS



### Project Details

<b>Gross Capacity</b>	<b>1200 MW (4 x 300)</b>
<b>Technology</b>	<b>Sub-critical Imported Coal based TPP</b>
<b>Fuel Linkage</b>	<b>Imported coal</b>
<b>Water Allocation</b>	<b>MIDC + Sea Water</b>
<b>Power Off take</b>	<b>300 MW to MSEDCL for 25 years with fuel cost pass through Short term sale for 900 MW</b>
<b>Project Cost</b>	<b>₹ 5,700Cr (including FGD) Debt / Equity: 75:25 Amt spent till Mar 31, 2011: ₹ 4,968Cr</b>
<b>Expected Commissioning</b>	<b>Unit I &amp; II Operational Entire project expected by 2011</b>

### Status Update

- Unit III commissioning imminent
- Unit IV commissioning in June 2011



## WEST BENGAL POWER PROJECT



### Project Details

<b>Gross Capacity</b>	<b>1620 MW</b>
<b>Technology</b>	<b>1,320 MW - Super-critical; 300 MW Sub-critical- Domestic coal based TPP</b>
<b>Share Holding</b>	<b>74 % - JSWEL 26 % - JSW Bengal Steel Limited</b>
<b>Fuel Linkage</b>	<b>Ichhapur Mines- WBMDTC to supply fuel</b>
<b>Power Off take</b>	<b>50% Captive sale to the steel plant on two part tariff framework, 25% to WBMTDC , 25% on merchant</b>
<b>Project Cost Phase - I (300 MW)</b>	<b>ˆ 1,662 Crs for Power plant ˆ 1,500 Crs for Mines Development Amt spent till Mar 31, 2011 : ˆ 59 Crs</b>

### Status Update

- Land in possession
  - PPA signed with WBMTDC for 25% of 1320 MW of power
  - Agreement executed for coal raising & coal procurement
  - Bids invited for BTG equipment supply
- 
- 95% of drilling exploration completed for Ichhapur coal mine
  - Construction of boundary wall and other enabling works in progress



# CHATTISGARH POWER PROJECT



## Project Details

**Gross Capacity**

1,320 MW (2 x 660)

**Technology**

Super-critical domestic coal based TPP

**Fuel Linkage**

11% interest in coal block jointly allocated; applied for additional coal linkage

**Water Allocation**

35 mn cmpa water allocated from Mahanadi River

**Power Off take**

Combination of long term & short term agreements; 35% to State Govt.

**Project Cost**

~ 6,500 Crs  
Amt spent till Mar 31, 2011 :  
~ 52 Crs

## Status Update

- PPA signed with GoCG for 35% of power

- EIA report submitted to MOEF

- Water allocation obtained

- Topography survey and geo-technical investigations completed

- Land acquisition in progress - 257 acres (32%) already acquired

- Section 4 notification issued for 507 acres

- Rail route survey in progress

- Detailed survey of water pipeline route in progress

- Offers received for BTG equipment under review



## Project Details

<b>Gross Capacity</b>	240 MW (3 x 80)
<b>Technology</b>	Run-of-the-river Hydropower
<b>Water Allocation</b>	Ravi River
<b>Power Off take</b>	Free power to GoHP - 12% to 30% of delivered energy for 40 years. Balance through short term arrangements
<b>Project Cost</b>	` 1,798 Crs Amt spent till Mar 31, 2011 : ` 119 Crs

## Status Update

- Techno Economic Clearance from CEA received
  - Environment clearance recommended by EC
  - Pre qualification of civil & construction agencies completed- Technical & commercial bid scheduled to be submitted by May 2011
  - Pre-qualification of vendors for electro mechanical & hydro mechanical works issued
  - Implementation agreement signed with HP government
  - Bid documents for main civil works issued to qualified vendor
- Land acquisition under progress



## Project Details

<b>Gross Capacity</b>	660 MW (1 x 660)
<b>Technology</b>	Super critical coal based TPP
<b>Fuel Linkage</b>	Imported coal / Domestic linkage coal
<b>Water Source</b>	Almatti Dam
<b>Power Off take</b>	Merchant power & Long Term PPA
<b>Project Cost</b>	Total Cost: ` 3,300 Crs

## Status Update

- Land identified
- TOR cleared by MOEF
- Plant layout finalised
- DPR under preparation
- Geo technical survey in progress



## Project Details

<b>Gross Capacity</b>	<b>270 MW (2 x 135)</b>
<b>Technology</b>	<b>Subcritical Captive lignite based TPP</b>
<b>Fuel Linkage</b>	<b>Applied to Ministry of Coal</b>
<b>Water Allocation</b>	<b>Allocation from IGNP</b>
<b>Power Off take</b>	<b>Short Term power purchase arrangements</b>
<b>Project Cost</b>	<b>Total Cost: ` 1,350 Crs Amount spent till Mar 31, 2011 : ` 61 Crs</b>

## Status Update

- Land in possession
- Applied for coal linkage
- Government consent awaited



# JSW ENERGY RATNAGIRI EXPANSION



## Project Details

<b>Gross Capacity</b>	3,200 MW (4 x 800)
<b>Technology</b>	Super-critical imported coal based TPP
<b>Authority</b>	Letter of support from Government of Maharashtra
<b>Fuel Linkage</b>	Imported Coal
<b>Water Allocation</b>	Sea Water
<b>Power Off take</b>	Combination of long term & short term agreements
<b>Project Cost</b>	~ 150 Bn. Amt spent till Mar 31, 2011: ~ 61 Crs

## Status Update



• Substantial land in possession



• In the process of obtaining necessary consents and approvals





## Project Details

### Gross Capacity

165 Km, 400 KV Transmission

### Technology

Double Circuit Quad Moose Conductor Line

### Procurement


Orders placed

### Project Cost

` 576 Crores  
 Debt:Equity : 75 :25  
 Actual incurred till Mar 31, 2011 :  
 ` 491 Crs

## Status Update


 •Entire Jaigad – Koyna Line successfully charged


 •Jaigad – Karad:  
 •Tower Foundations: 98%  
 •Tower Erection: 92%  
 •Stringing: 63%



## Project Details

### Gross Capacity

3GW Steam Turbine Generators

### Technology

Super critical steam turbines of size 500-1000 MW

### Procurement

All orders placed

### Investment

Entire equity required from JSWEL: ` 44 Crs has been invested

## Status Update

- Blade shop equipment installation completed
  - Trial manufacturing commenced
  - Building & Equipment Warehouse completed
  - Plant layout finalised
- 
- Total project completion 86%
  - Main plant completion 75%
  - Manufacturing of TG sets in 2012



## Status Update

**BLMCL- Kapurdi Mine**

**Lignite seam exposed**

**Over 50 million cubic metre of overburden removed**

**BLMCL- Jalipa Mine**

**MOEF Clearance received  
Mine development plan approved**

**Land acquisition under progress; Entire price deposited**

**MJSJ Coal**

**Public hearing completed**

**Land acquisition under progress**

**Ichhapur Mine**

**Geophysical logging completed for 95% of the boreholes  
Drilling activity 95% complete**



# IMPORTED COAL PROJECT



## SACMH

<b>Location</b>	Umlabu & Ilanga (Wit Bank Region), South Africa
<b>Total Investment</b>	Actual spent till March 31, 2010 : US \$ 34 Mio
<b>Control</b>	59.49 % Equity holding
<b>Attractive Features</b>	<ul style="list-style-type: none"><li>• Richard's Bay Coal Terminal Entitlement for 0.5 MTPA</li><li>• Railway siding within the mine with a capacity to handle upto 0.5 MTPA</li></ul>
<b>Minable Reserves</b>	22 Million Tonnes
<b>GCV (NAR)</b>	6000 Kcal - 6200 Kcal

## Status Update

- Coal production commenced
- Raw Coal produced during Q4 FY 2011: 140,069 tonnes
- Wash plant up-gradation completed
- Open cast & underground mining under progress

## STRATEGIC PRIORITIES



**Ensure Fuel  
Security**

**Smooth  
Integration of all  
verticals of the  
Power Sector**

**Create a  
world class  
POWER  
Utility**

**Prudent mix of  
power  
off- take  
arrangements**

**Capitalise on  
opportunities  
offered by the  
sector**



## Plant Overview





Control Room



Cooling Towers





## Plant Overview







### Turbine Generator IV



### Turbine Generator III





## Plant Overview





## FORWARD LOOKING & CAUTIONARY STATEMENT



*Certain statements in this report concerning our future growth prospects are forward looking statements, which involve a number of risks, and uncertainties that could cause actual results to differ materially from those in such forward looking statements. The risk and uncertainties relating to these statements include, but are not limited to risks and uncertainties regarding fluctuations in earnings, our ability to manage growth, intense competition within Power industry including those factors which may affect our cost advantage, wage increases in India, our ability to attract and retain highly skilled professionals, time and cost overruns on fixed-price, fixed-time frame contracts, our ability to commission mines within contemplated time and costs, our ability to raise the finance within time and cost client concentration, restrictions on immigration, our ability to manage our internal operations, reduced demand for power, our ability to successfully complete and integrate potential acquisitions, liability for damages on our service contracts, the success of the companies in which the Company has made strategic investments, withdrawal of fiscal/governmental incentives, impact of regulatory measures, political instability, legal restrictions on raising capital or acquiring companies outside India, unauthorized use of our intellectual property and general economic conditions affecting our industry. The company does not undertake to update any forward looking statements that may be made from time to time by or on behalf of the company.*



Thank  
You