

Mining | Equipment Manufacturing | Power Generation | Power Transmission | Power Trading

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

# Energising Dreams



**FY 2011**

# AGENDA



Power Drivers

Company Overview

Performance Highlights

Major Developments

Status of Projects

Way Forward

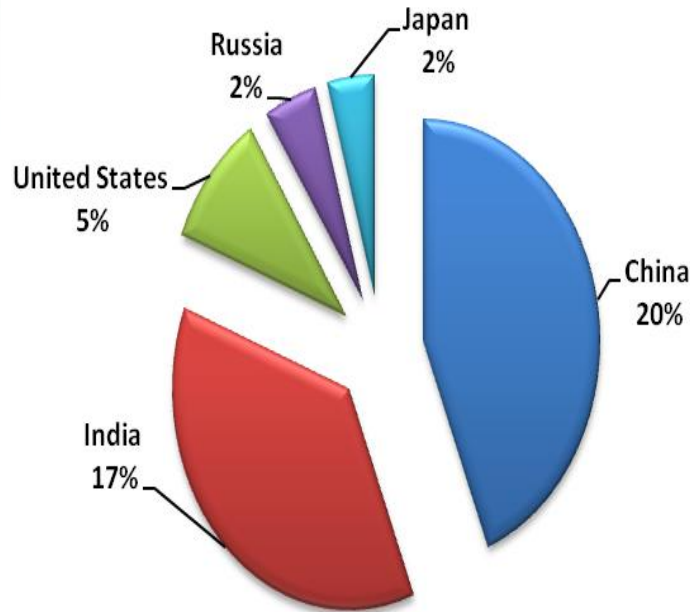
# POWER DRIVERS



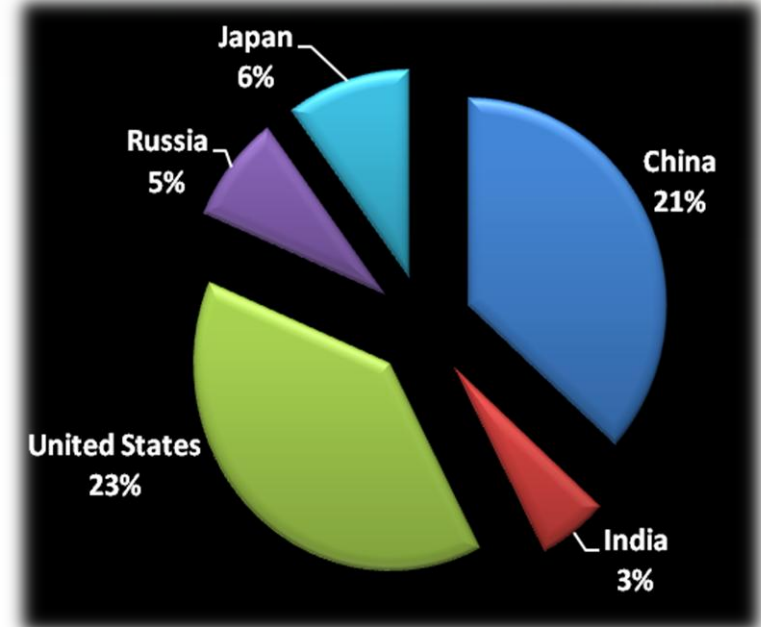
# POWER: CATALYST TO GROWTH



Share of World Population



Share of World Energy Consumption



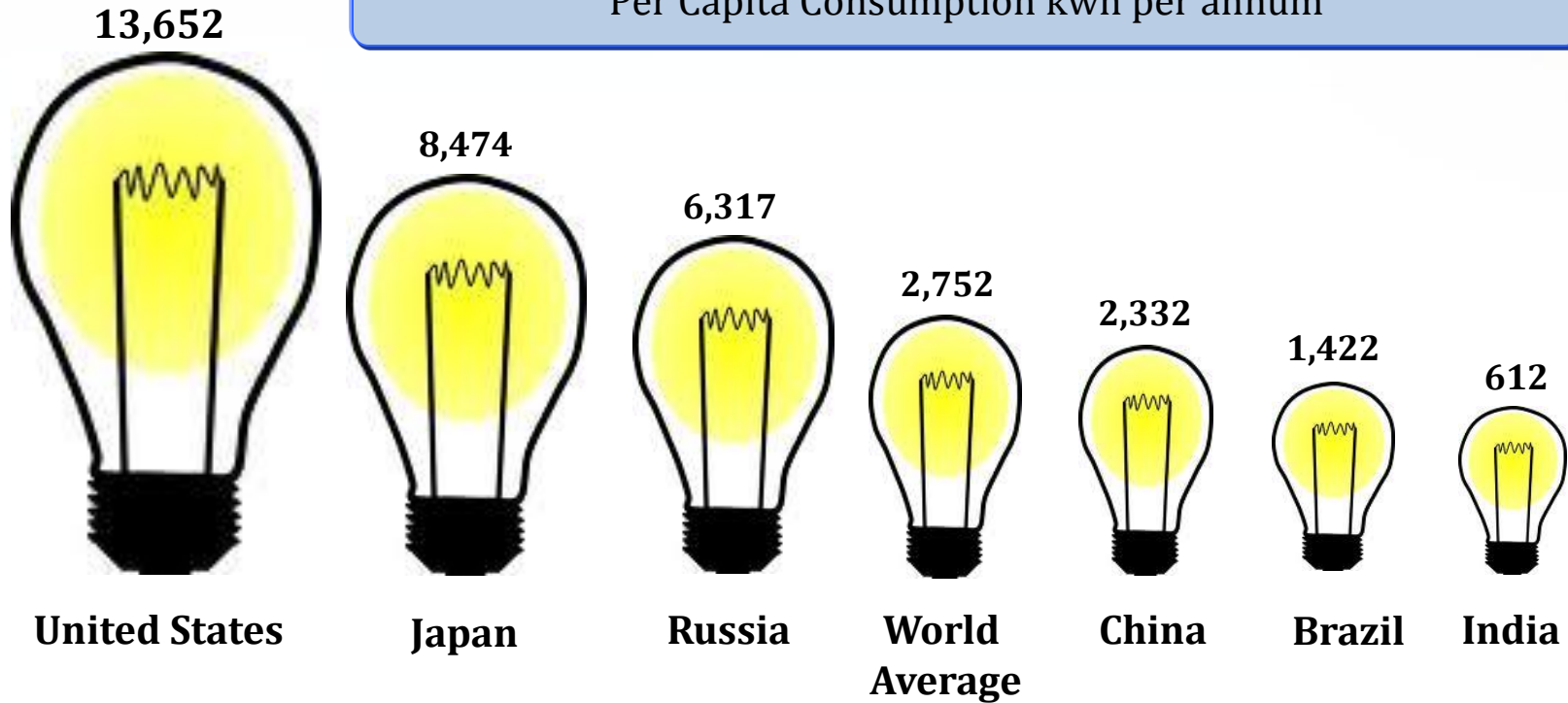
**India makes up 17% of the world population yet consumes only 3% of the world energy**

- India- historically characterized by energy shortages
- India's Peak Demand Deficit at 13.8% in Q1 FY 2011

# DIFFERENTIALS IN POWER CONSUMPTION



Per Capita Consumption kwh per annum

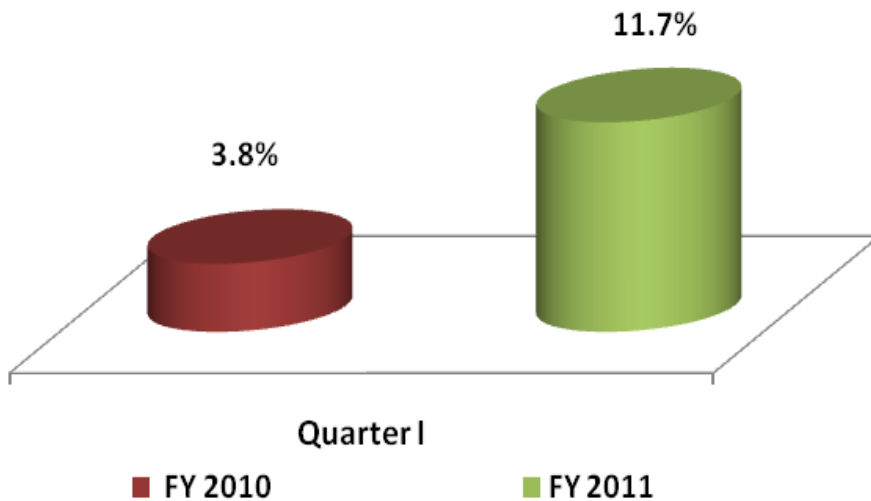


- Low Per Capita consumption & penetration of electricity
- Merely 44% of the rural households have access to electricity

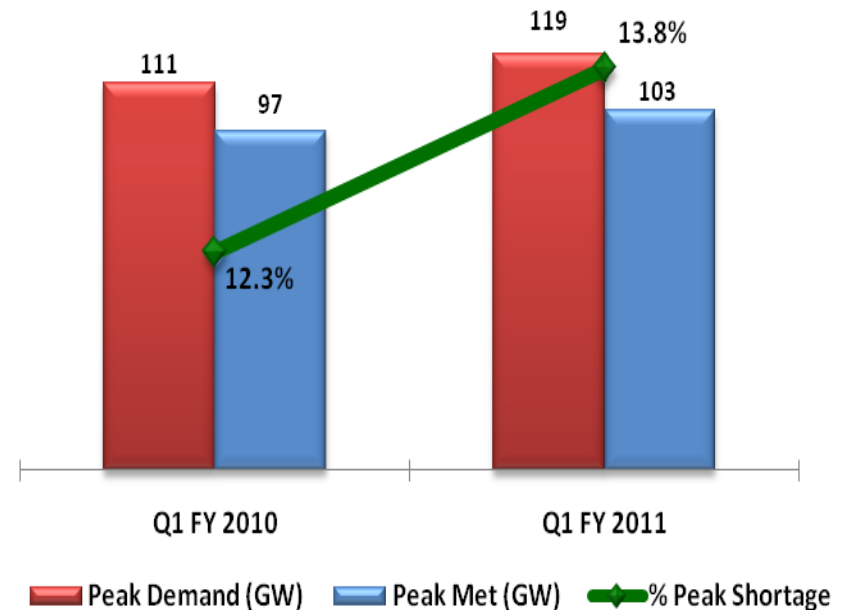
# FAVOURABLE DYNAMICS



Year on Year IIP Growth (%)



Demand Deficit Trend (Q1 FY 2011)

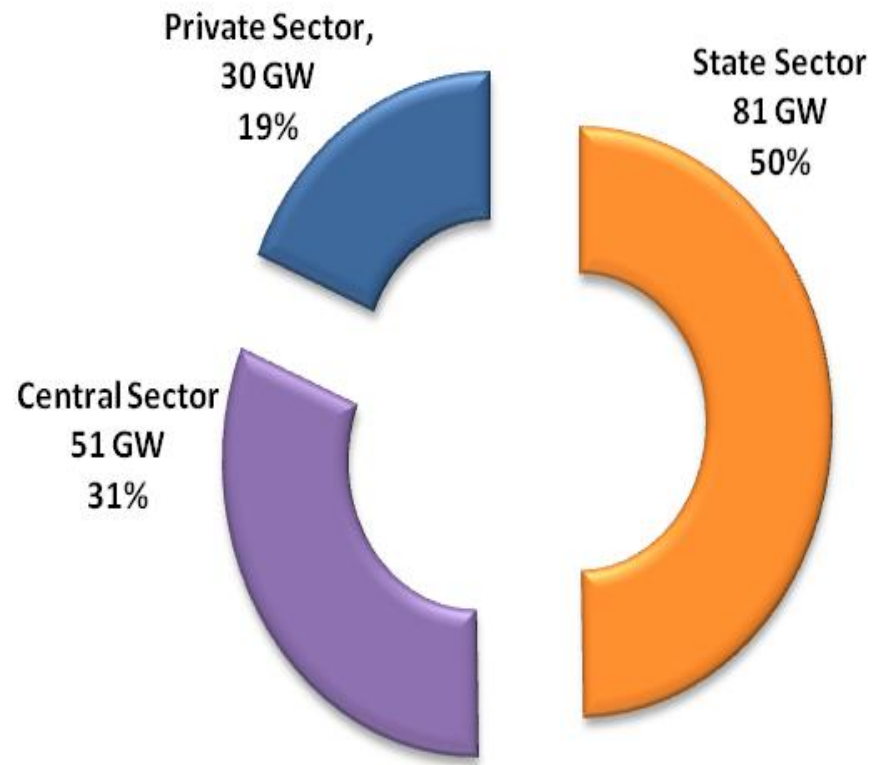


➤ Expanding base of industrial sector provides scope for huge development in the power sector

# CAPACITY

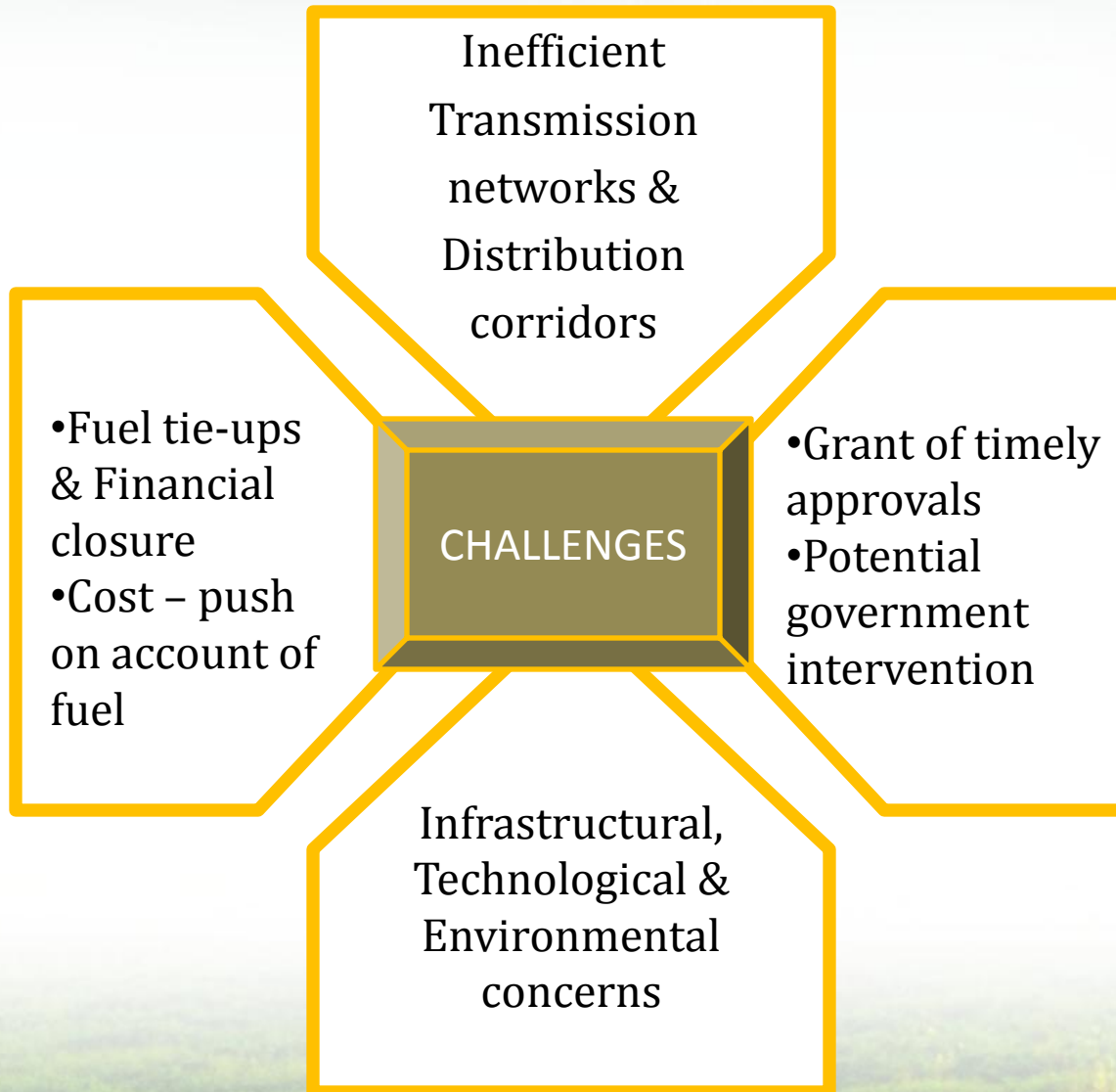


## Total Installed Capacity, June 30, 2010



**Total Capacity: 162 GW**

# CHALLENGES





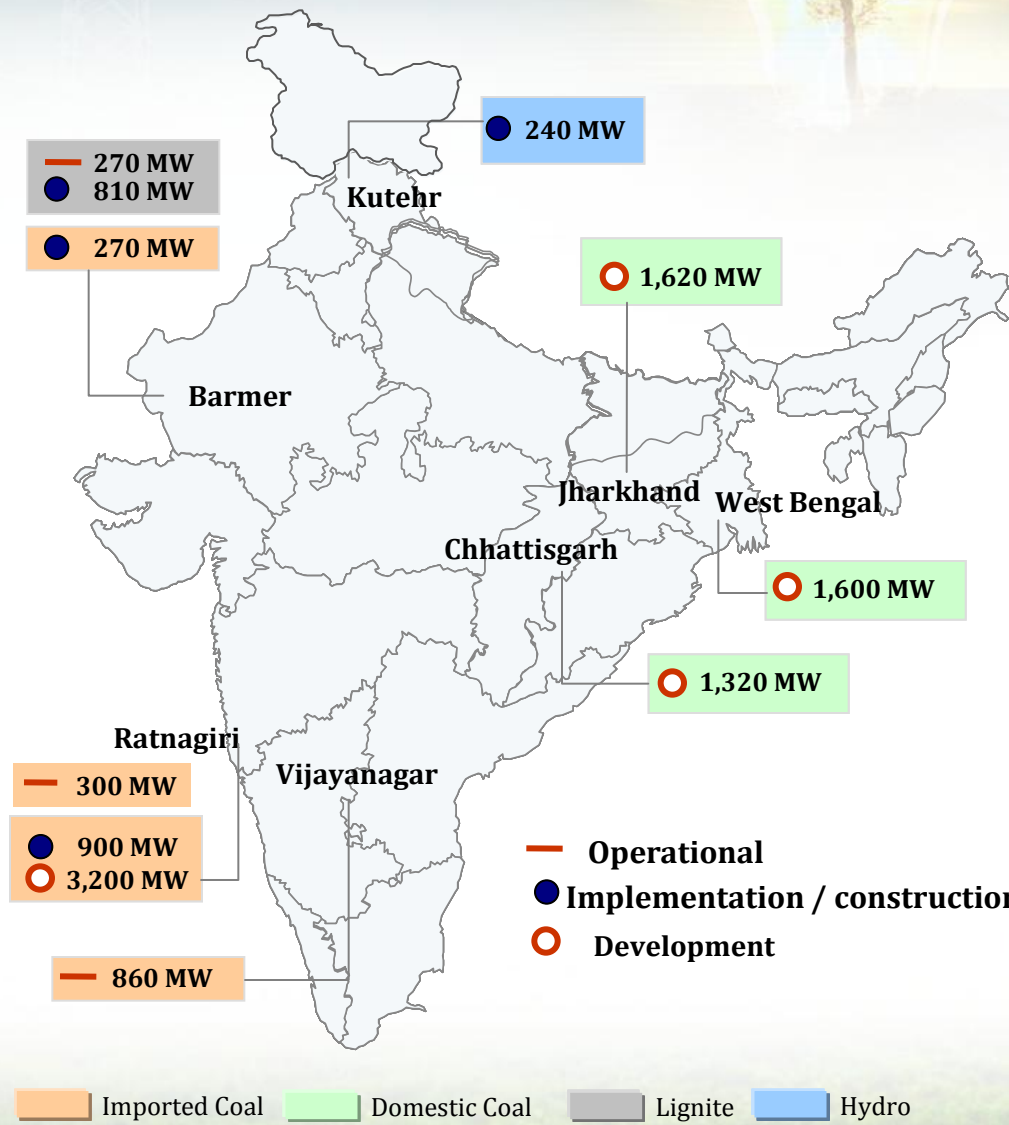
# COMPANY OVERVIEW



# OVERVIEW



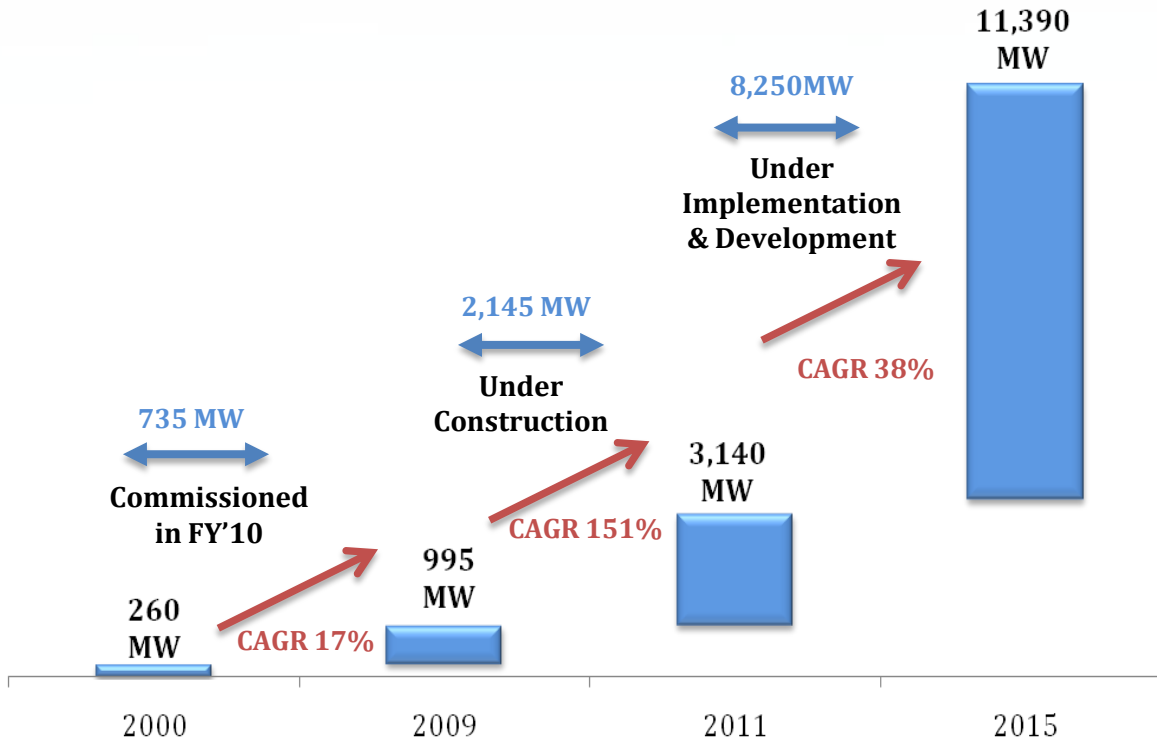
- Established power company with proven track record (since FY 2000)
- Present operating capacity: 1,430 MW
- 11,390 MW by FY 2016
  
- Profit making since inception



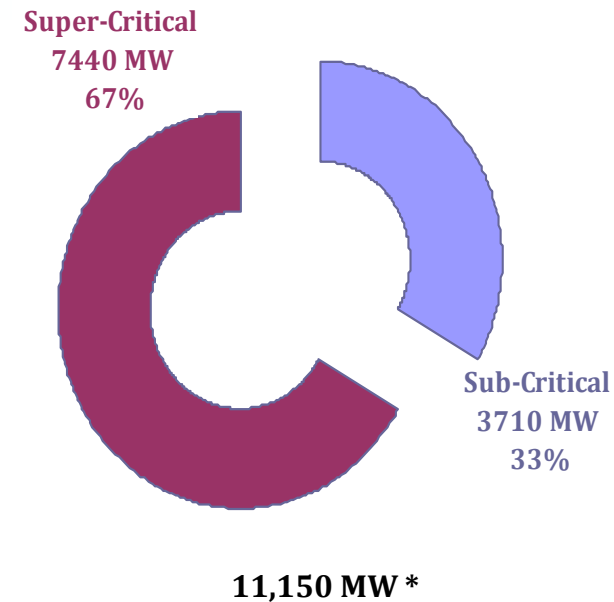


# GROWTH DRIVEN BY TECHNOLOGY

## Capacity Ramp Up



## Technology Mix



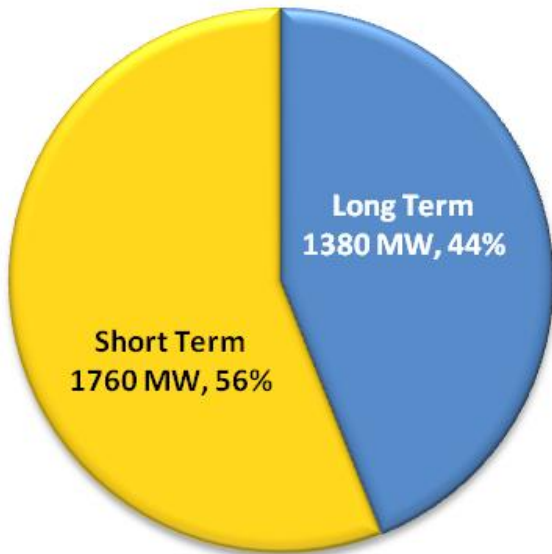
\* Excludes Hydro Capacity of 240 MW

**Synergies of Growth & Technological shift drives value creation**

# BALANCED OFF TAKE ARRANGEMENTS



## Significant Capacity Available for Short-Term Sales

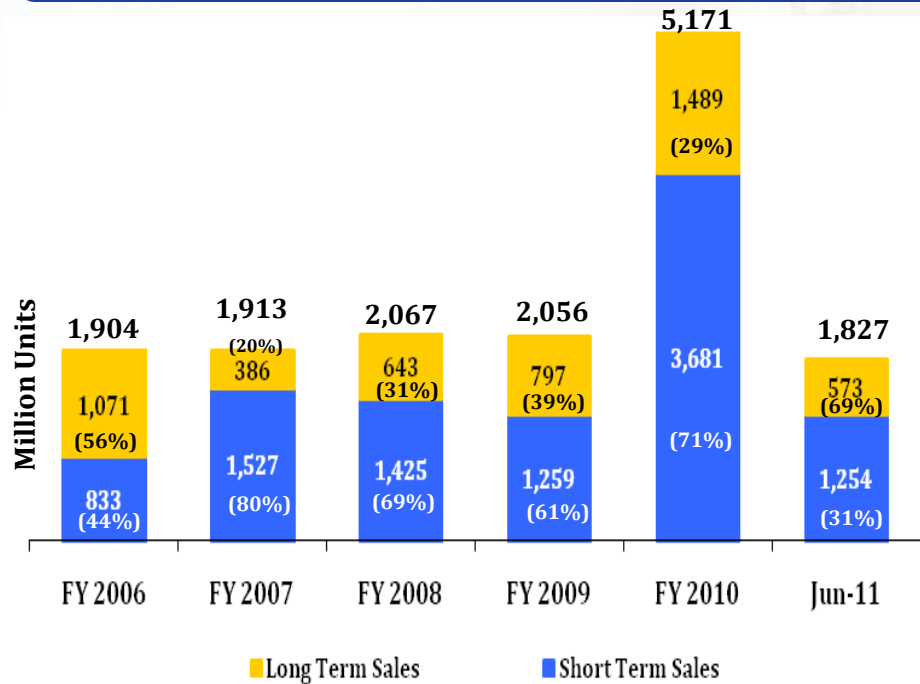


**3,140 MW**

### Short Term Arrangements

- Ability to capitalise on better realisations provided by huge deficits

## Established presence in Short-Term Sales



### Long Term Arrangements

- Stable cashflows with pre-defined return

**Well Positioned to Capitalize on High Short to Medium Term Tariffs with capacity available for short term sales**

# ENHANCING FUEL SECURITY



## Imported Fuel

- Majority Stake in SACMH coal assets, South Africa
- Long term coal contracts from Indonesia & Mozambique

## Domestic Fuel

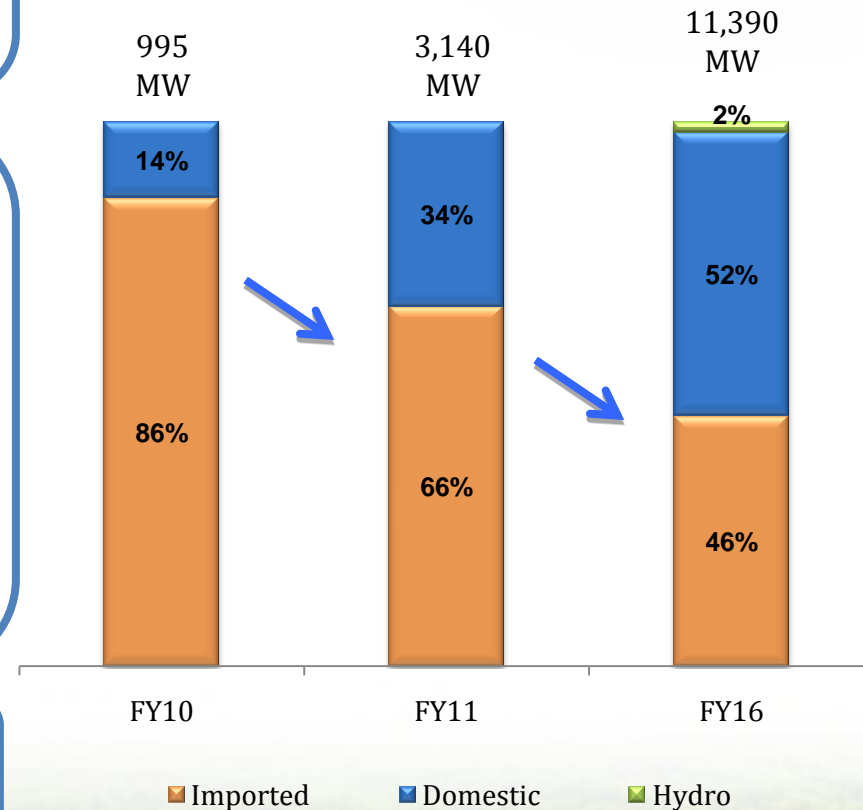
- Kapurdi & Jalipa lignite mines, Rajasthan
- Coal block: Utkal – A Gopalprasad (W), Orissa
- Ichhapur coal mine (through WMTDC), West Bengal

## Hydro

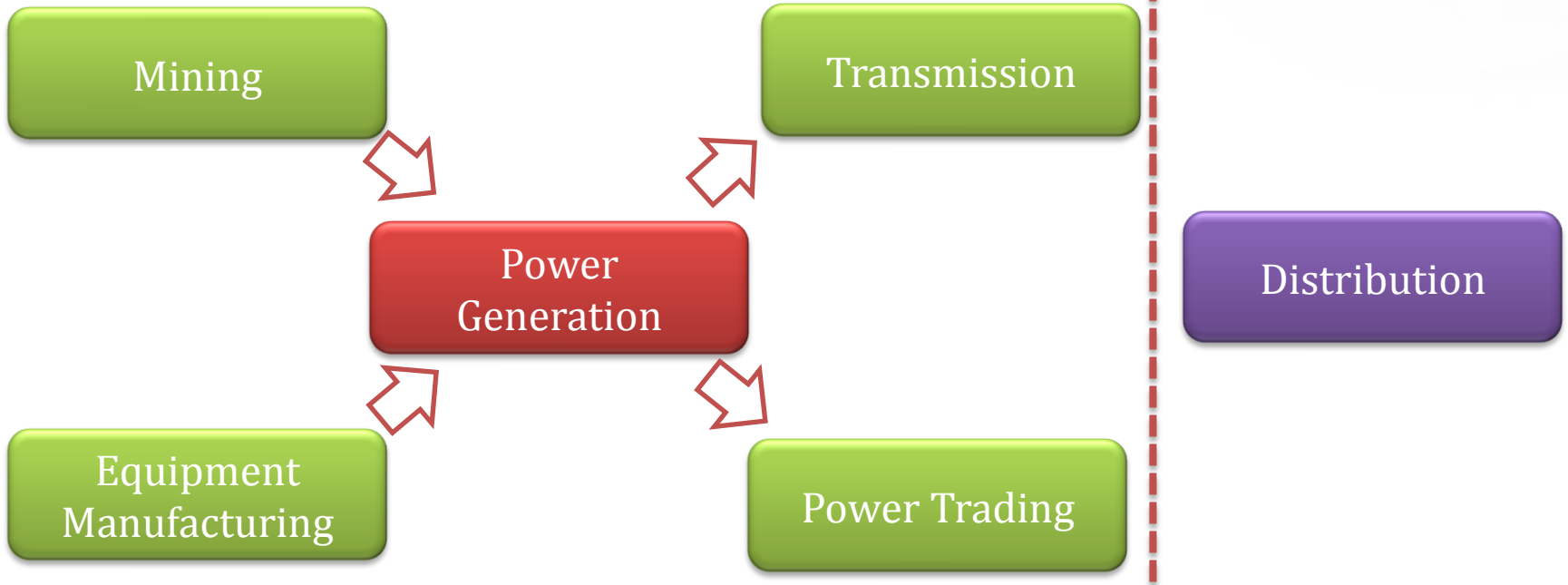
- Water from Ravi River

Diversified Fuel Mix reduces risk

## Reducing Dependence on Imported Fuel



# INTEGRATED APPROACH TO POWER SOLUTION



**BACKWARD INTEGRATION**

**FORWARD INTEGRATION**

**Aim to be present across the Value Chain**

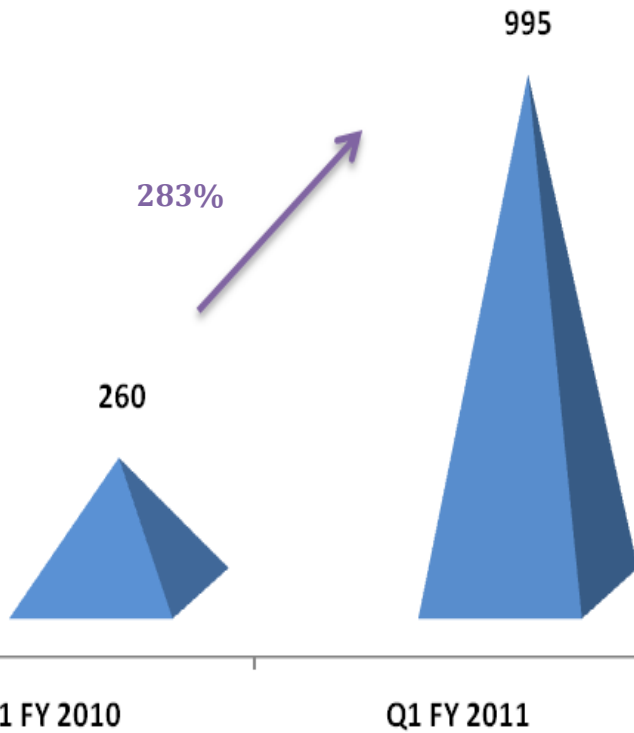
# PERFORMANCE HIGHLIGHTS



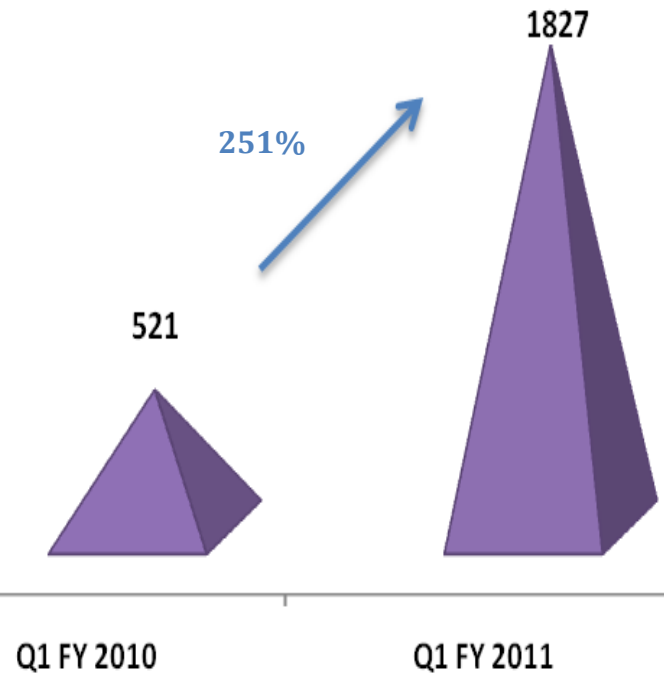
# CAPACITY & VOLUME GROWTH



Capacity Growth (MW)



Volume Growth (Million kwh)

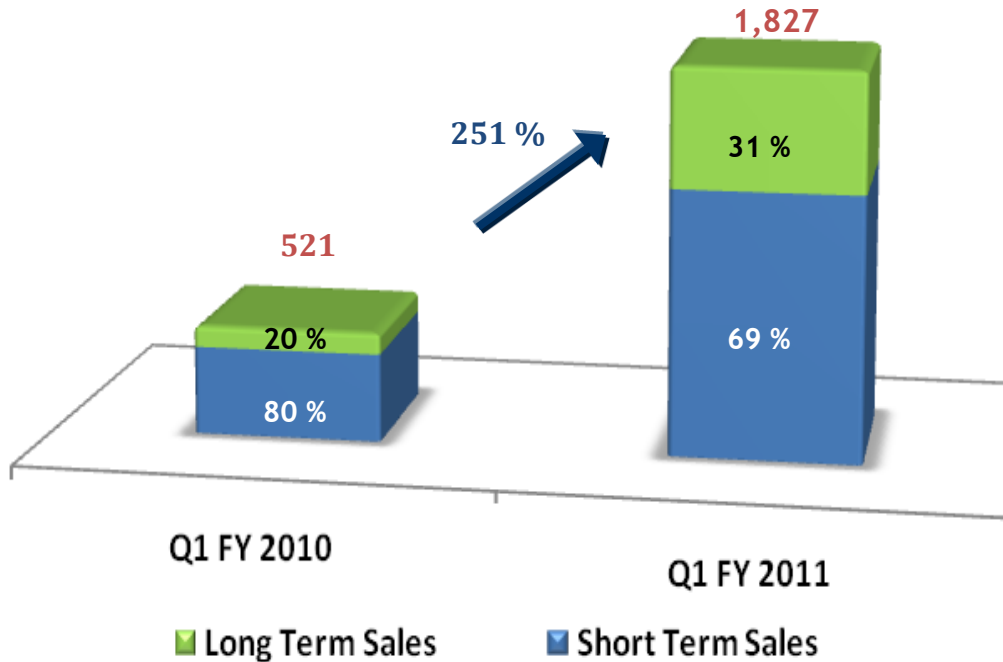




# OPERATIONAL PERFORMANCE



**Net Generation( Million kwh)**



**Realization ₹ per kwh / US Cents per kwh**

**Short Term Realisation**

**Average Realisation**

	Q1 FY 2010		Q1 FY 2011	
Short Term Realisation	6.20	13.30	5.77	12.38
Average Realisation	5.66	12.15	5.09	10.92

# OPERATIONAL PERFORMANCE



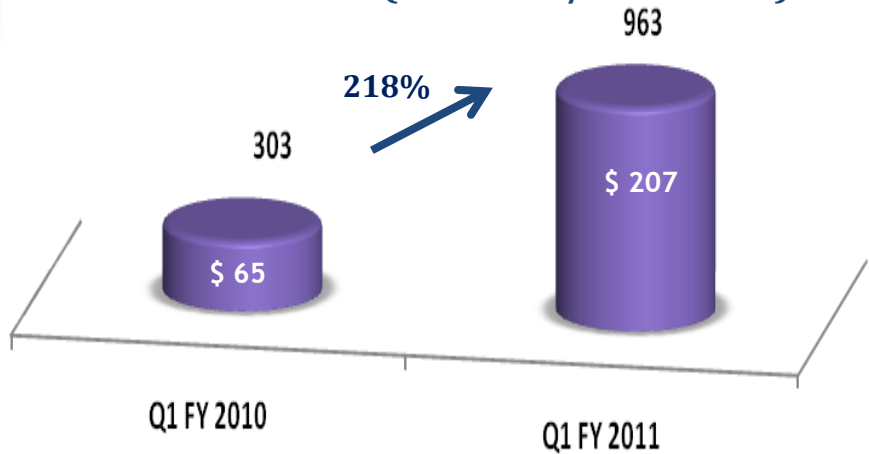
Q1 FY 10	NET GENERATION (Million kwh)	Q1 FY 11
521	Vijayanagar (SBU I)	500
	Vijayanagar (SBU II)	1,228
	Barmer (RWPL I)	99
521	<b>TOTAL</b>	<b>1,827</b>

Q1 FY 10	PLF (%)	Q1 FY 11
99.0%	Vijayanagar (SBU I)	95.1%
	Vijayanagar (SBU II)	101.3%
	Barmer (RWPL I)	42.4%

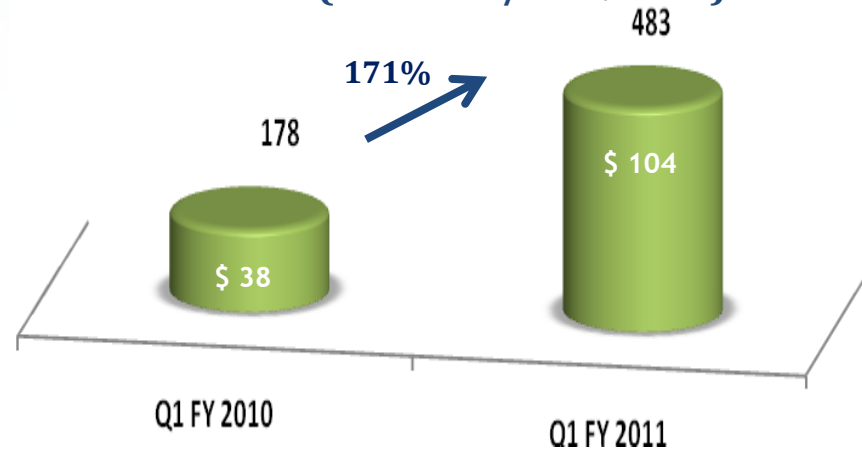
# FINANCIAL HIGHLIGHTS- CONSOLIDATED



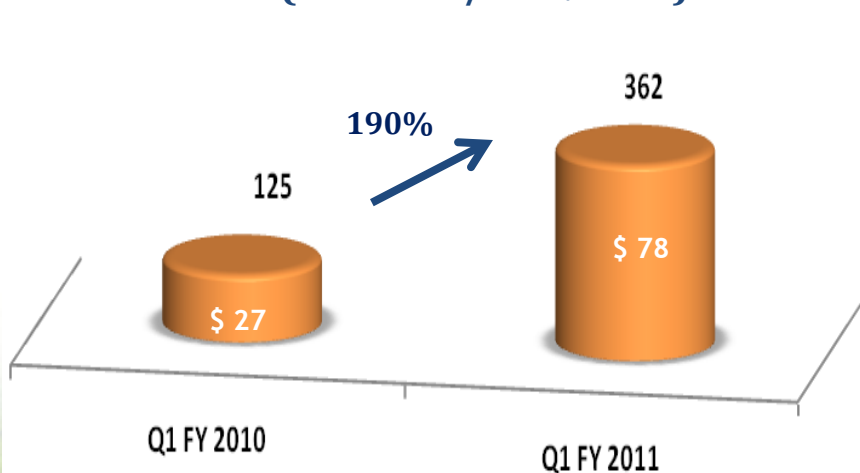
### Total Income\* (₹ Crores / US \$ Mio.)



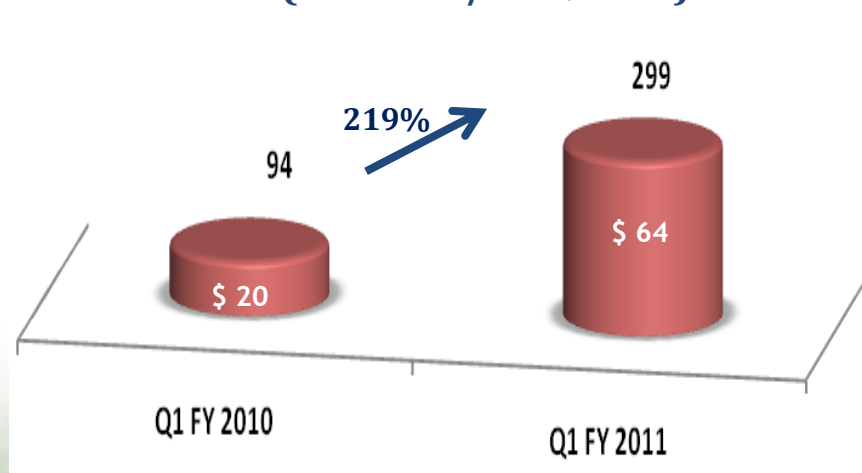
### EBITDA (₹ Crores / US \$ Mio.)



### PBT (₹ Crores / US \$ Mio.)



### PAT (₹ Crores / US \$ Mio.)



# CONSOLIDATED RESULTS



Q1 FY 2010			Q1 FY 2011	
₹ Crores	USD Mio.		₹ Crores	USD Mio.
302.66	64.95	Total Income	962.87	206.62
178.25	38.25	EBITDA	482.82	103.61
58.89		EBITDA (%)	50.14	
38.24	8.21	Interest	73.66	15.81
14.90	3.20	Depreciation	46.66	10.01
125.11	26.85	PBT	362.49	77.79
93.63	20.09	PAT	298.64	64.09
0.61	1.31	EPS (Not Annualised) (₹ / US Cents)	1.82	3.91

# CONSOLIDATED FINANCIAL HIGHLIGHTS


**31<sup>st</sup> March 2010**
**30<sup>th</sup> June 2010**

	(₹ Crores)	USD Mio.	(₹ Crores)	USD Mio.
<b>Net Worth</b>	<b>4,780</b>	<b>1,026</b>	<b>5,079</b>	<b>1,090</b>
<b>Debt</b>	<b>7,870</b>	<b>1,689</b>	<b>7,972</b>	<b>1,711</b>
<b>Net Fixed Assets *</b>	<b>11,598</b>	<b>2,489</b>	<b>11,987</b>	<b>2,572</b>
<b>Debt Equity Ratio (Times)</b>	<b>1.65</b>		<b>1.57</b>	
<b>Weighted Average Cost of Debt (%)</b>	<b>11.51</b>		<b>11.42</b>	

\*Including CWIP

USD/Rs. 46.60 (RBI Reference rate as on 30.06.2010)



# UTILISATION OF IPO PROCEEDS

PARTICULARS	₹ CRORES		USD MIO.	
	Project Utilisation as per Prospectus	Actual Amount Spent upto June 30, 2010	Project Utilisation as per Prospectus	Actual Amount Spent upto June 30, 2010
Utilisation upto June 30, 2010				
(i) Part Finance for Identified Projects	2,142.53	947.15	459.77	203.25
(ii) Repayment of Corporate Debt	470.00	470.00	100.86	100.86
(iii) Share Issue Expenses	75.98	63.57	16.30	13.64
(iv) General Corporate Purpose	11.49	-	2.47	-
(v) Unutilised Amount invested in MF/ Bank FD/ Utilised for reduction of Overdraft	-	1,219.28	-	261.65
Gross Proceeds received from IPO	2,700.00	2,700.00	579.40	579.40

# MAJOR DEVELOPMENTS



## PROJECTS

- Unit I- Ratnagiri commercially operational on September 1, 2010
- Unit II- Barmer COD achieved on October 4, 2010

## MERGER of JSWERL with JSWEL

### RATIONALE

- Building robust corporate structure
- Creates economies of scale through operation as single entity
- Stronger balance sheet of Consolidated Entity
- Ability to efficiently utilize entire surplus at holding company
- Ability to raise funds at low rate of interest

# STATUS OF PROJECTS



# TRANSMISSION PROJECT



## Project Details

<b>Gross Capacity</b>	<b>1200 MW, 400 KV Transmission</b>
<b>Technology</b>	<b>Double Circuit Quad Moose Conductor Line</b>
<b>Procurement</b>	<b>Orders placed</b>
<b>Project Cost</b>	<b>₹ 580 Crores (US\$ 124 Mio.) Debt:Equity : 75 :25 Actual spent till Jun 30, 2010 : ₹ 291 Crs (US\$ 62 Mio.)</b>
<b>Expected Commissioning</b>	<b>November 2010</b>

## Status Update

• **Jaigad-Koyna Line 2 successfully charged**

• **Jaigad - Karad:**

- **Tower Foundations: 88%**
- **Tower Erection: 53%**
- **Stringing: 16%**



# OTHER JOINT VENTURES



## Status Update

**BLMCL**

**Mine development process commenced at Kapurdi**  
**MOEF Clearance received for Jalipa mines**  
**Mine development plan approved for Jalipa mines**

**Expected to extract lignite by first quarter of calendar 2011**  
**Land acquisition at advanced stage for Jalipa mines**

**MJSJ Coal**

**Public hearing process completed**

**Land acquisition in process**  
**Target to commence production in 2011**

**JSW Toshiba**

**Order for mechanical & electrical works released**  
**Temporary power received at site**

**Total project completion 47%**  
**Progress for Blade Shop 80%**  
**Blade manufacturing by 2011**



# GENERATION PROJECTS

# 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 :PPA for entire capacity with state Government distribution utilities</b>
<b>Project Cost</b>	<b>₹ 5000 Crs (US\$ 1073 Mio.) Debt / Equity: 75:25 Amt spent till Jun 30, 2010: ₹ 4,556 Crs (US\$ 978 Mio.)</b>

## Status Update

- Unit 2 COD October 4, 2010
- Unit 3 & 4 boiler hydro test completed
- Raw Water pipe line commissioned
- Tapering coal linkage approved by Ministry of Coal

# JSW ENERGY RATNAGIRI LTD. I



## Project Details

## Status Update

<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>Long term supply arrangement for Indonesian 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 pass through Ability to avail short term rates for balance 900 MW</b>
<b>Project Cost</b>	<b>₹ 4500 Crs (US\$ 966 Mio.) Debt / Equity: 75:25 Amt spent till Jun 30, 2010: ₹ 3,812 Crs (US\$ 818 Mio.)</b>
<b>Expected Commissioning</b>	<b>Unit I COD September 1, 2010 Entire project by FY 2011</b>

- **Boiler 2 light up done & steam blowing started**
- **Commissioning of critical equipments in progress**
- **Boiler 3 & 4 hydro test completed**
- **TG put on barring**

Particulars	% of total
PCC & RCC	94
TG Structural Fabrication	94
TG Structural Erection	87
Boiler-1 Erection	100
Boiler-2 Erection	100
Boiler-3 Erection	70
Boiler-4 erection	60

# KUTEHR HYDRO PROJECT - 3 X 80 MW



## Project Details

### Gross Capacity

240 MW (3 x 80)

### Technology

Run-of-the-river Hydropower

### Water Allocation

Ravi River

### Power Off take

Free power to GoHP - 12% to 30% of delivered energy for 40 years. Balance through short term arrangements

### Project Cost

₹ 1915 Crs (US\$ 411 Mio.)  
Debt / Equity: 56:44  
Amt spent till Jun 30, 2010 :  
₹ 80 Crs (US\$ 17 Mio.)

### Expected Commissioning

September 2015

## Status Update

•Prequalification of vendors completed for Main Civil Works

•Public hearing for Environment clearance held successfully

•Techno Economic Clearance from CEA received on August 30, 2010

•Land acquisition under progress - Five affected Gram panchayats have given NOC

# CHHATTISGARH POWER PROJECT - 2 X 660 MW



## Project Details

<b>Gross Capacity</b>	<b>1,320 MW (2 x 660)</b>
<b>Technology</b>	<b>Super-critical domestic coal based TPP</b>
<b>Authority</b>	<b>MoU signed with GoCG for setting up a TPP along with integrated coal mine</b>
<b>Fuel Linkage</b>	<b>11% interest in coal block jointly allocated; applied for additional coal linkage</b>
<b>Water Allocation</b>	<b>35 mn cmpa water allocated from Mahanadi River</b>
<b>Power Offtake</b>	<b>Combination of LTPPA and short term agreements with JSWPTC; 35% to State Govt.</b>
<b>Project Cost</b>	<b>₹ 6,500 Crs (US\$ 1395 Mio.) Amt spent till Jun 30, 2010 : ₹ 33 Crs (US\$ 7 Mio.)</b>
<b>Expected Commissioning</b>	<b>Unit I- July 2014 Unit II November 2014</b>

## Status Update

- Consent for chimney clearance given by Airport Authority
- Four bidders have purchased tender documents
- Public hearing completed in August 2010
- Land acquisition in progress - 325 acres already acquired



# WEST BENGAL POWER PROJECT - 1600 MW



## Project Details

<b>Gross Capacity</b>	<b>1,600 MW (2 x 800)</b>
<b>Technology</b>	<b>Super-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>Captive sale to the steel plant on two part tariff framework and balance for outside sale</b>
<b>Project Cost</b>	<b>₹ 7680 Crs (US\$ 1648 Mio.)for Power plant ; ₹ 2000 Crs (US\$ 429 Mio.)for Mines Development Amt spent till Jun 30, 2010 : ₹ 28 Crs (US\$ 6 Mio.)</b>
<b>Expected Commissioning</b>	<b>Unit I : 2014 Unit II : 2015</b>

## Status Update

- Water availability study conducted
- In principle approval received for entering into a LT PPA for surplus power
- Agreement executed for coal raising & coal procurement
- DPR finalised
- Bids invited for BTG equipment supply
- PPA with WBSEDCL for sale of up to 200 MW of power out of each 800 MW unit is under process
- Phase-wise implementation being worked out





# JSW ENERGY RATNAGIRI LTD. II- 4 X 800 MW



## Project Details

<b>Gross Capacity</b>	<b>3,200 MW (4 x 800)</b>
<b>Technology</b>	<b>Super-critical imported coal based TPP</b>
<b>Authority</b>	<b>Letter of support from Government of Maharashtra</b>
<b>Fuel Linkage</b>	<b>Imported Coal from Indonesia and Mozambique - Agreements in place</b>
<b>Water Allocation</b>	<b>Sea Water</b>
<b>Power Offtake</b>	<b>Participated in bids for power tie-up</b>
<b>Project Cost</b>	<b>₹ 150 Bn. (US\$ 32 Bn.) Amt spent till Jun 30, 2010: ₹ 41Cr (US\$ 9 Mio.)</b>
<b>Expected Commissioning</b>	<b>April 2015</b>

## Status Update

- Substantial land in possession
- Process of obtaining necessary consents and approvals

# JHARKHAND POWER PROJECT - 1620 MW



## Project Details

## Status Update

<b>Gross Capacity</b>	<b>1620 MW (2 x 660, 1 x 300)</b>
<b>Technology</b>	<b>1,320 MW - Super-critical Domestic coal based TPP; 300 MW Sub-critical</b>
<b>Authority</b>	<b>MoU with GoJ</b>
<b>Water Allocation</b>	<b>Water is proposed to be sourced from the Subarnarekha river</b>
<b>Power Offtake</b>	<b>25% to State Government; rest through LTPPA and STPPA with JSWPTC</b>
<b>Project Cost</b>	<b>₹ 79 Bn. (US\$ 17 Bn.)</b>
<b>Expected Commissioning</b>	<b>August 2015</b>

•Land identified

•Applied for coal linkage

# RAJ WEST POWER LTD. II - 2 X 135 MW



## 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: ₹ 1350 Crs (US\$ 290 Mio.) ; Amount spent till Jun 30, 2010 : ₹ 62 Crs (US\$ 13 Mio.)</b>
<b>Expected Commissioning</b>	<b>January 2013</b>

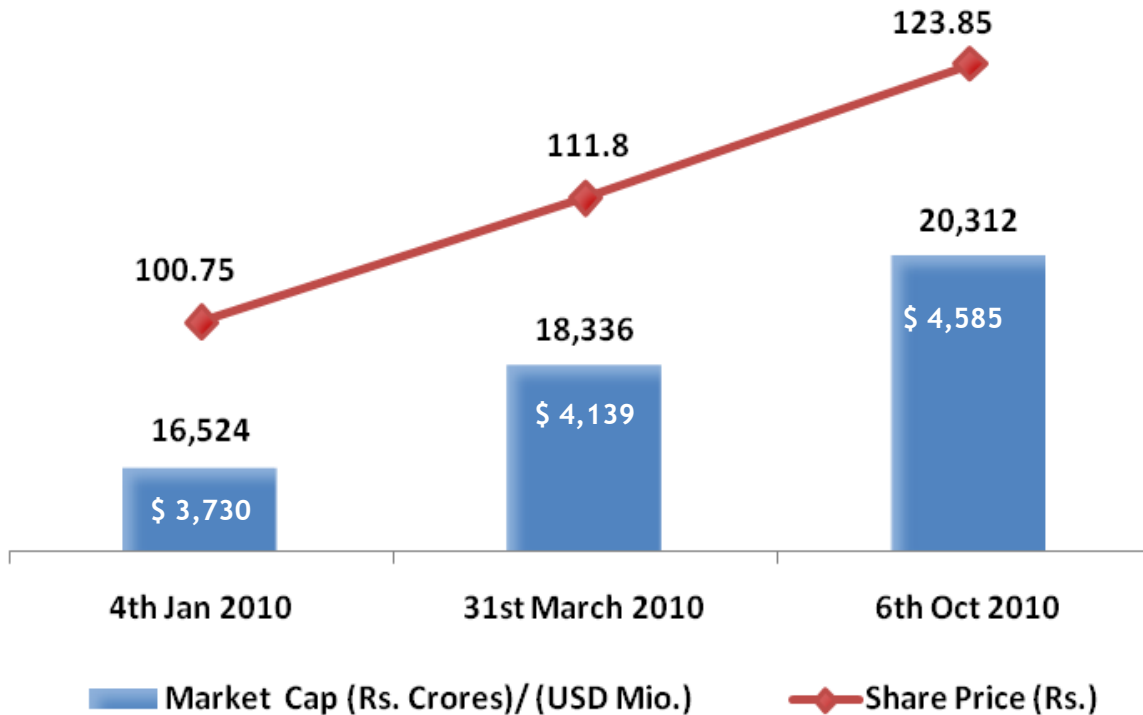
## Status Update

• Land in possession

• Applied for coal linkage



# SHARE PRICE TREND & MARKET CAPITALISATION

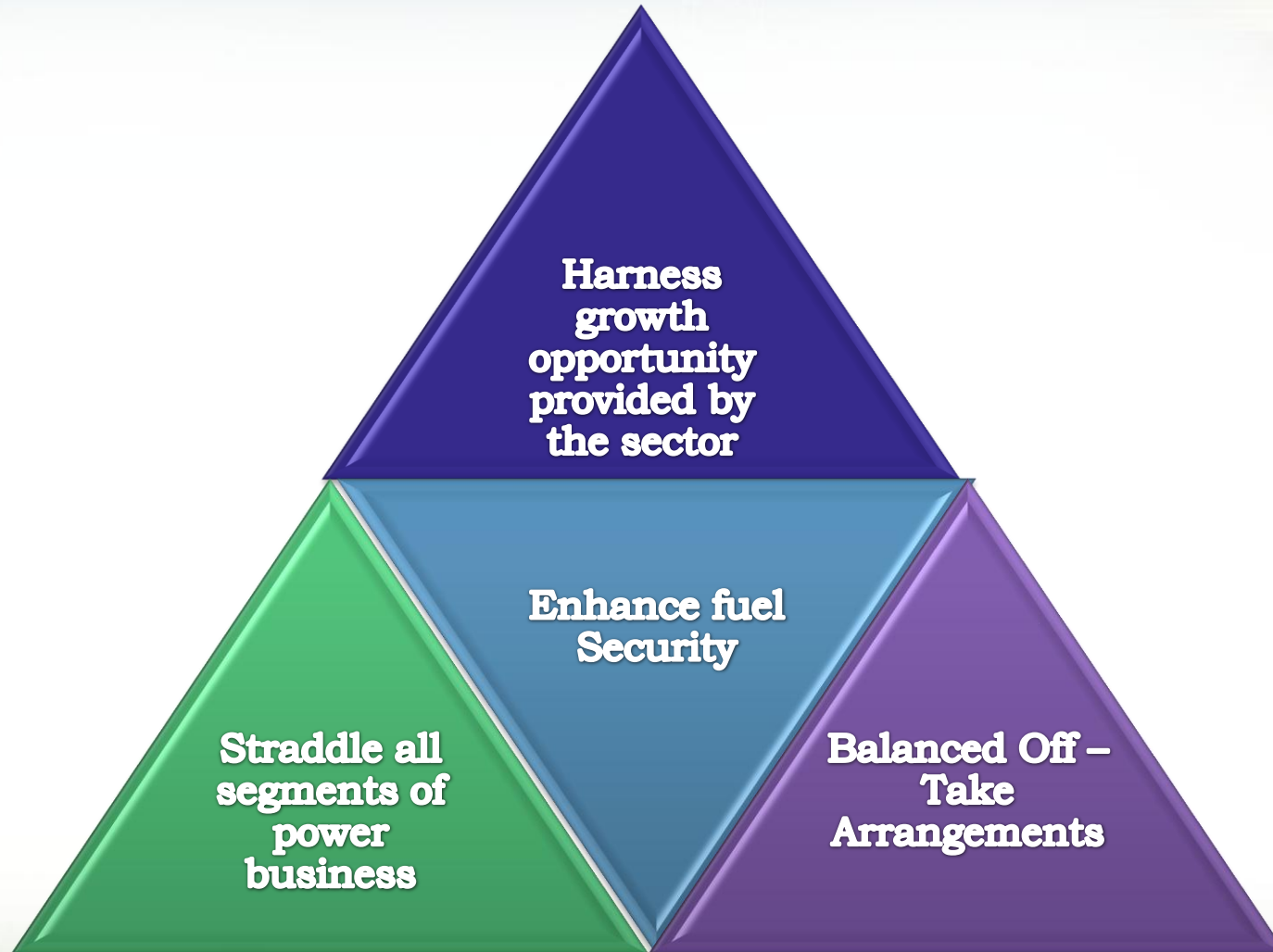


**23 % Increase in Market Capitalisation from the date of listing**

# WAY FORWARD



# STRATEGY & WAY FORWARD





# ANNEXURE

# STANDALONE RESULTS



Q1 FY 2010			Q1 FY 2011	
₹ Crores	USD Mio.		₹ Crores	USD Mio.
349.22	74.94	Total Income	922.18	197.89
216.17	46.39	EBITDA	495.42	106.31
61.90		EBITDA (%)	53.72	
37.57	8.06	Interest	58.86	12.63
14.76	3.17	Depreciation	38.38	8.24
163.84	35.16	PBT	398.18	85.45
132.73	28.48	PAT	327.20	70.21
0.87	1.87	EPS (Not Annualised) (₹ / US Cents)	2.00	4.29



# RAJ WEST POWER LIMITED



## Plant Overview



# RAJ WEST POWER LIMITED



Unit 3 TG Set



Unit 4 TG Set



# RAJ WEST POWER LIMITED



Unit 5 Boiler & ESP



Unit 6 Boiler



# JSW ENERGY RATNAGIRI LIMITED



**UNIT I Synchronized**

# JSW ENERGY RATNAGIRI LIMITED



JSW

## Overview



# KUTEHR HYDRO PROJECT

**JSW**



**Proposed Colony Site**

# KUTEHR HYDRO PROJECT

**JSW**



Rock Mechanic Tests under Progress

# JAIGAD POWER TRANSMISSION LIMITED



## Jaigad - New Koyna







## Site 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.*