AXIS DIRECT

20 DEC 2017 Company Report

BUY

Target Price: **Rs 100**

CMP	: **Rs 80**
Potential Upside	: **25%**

MARKET DATA

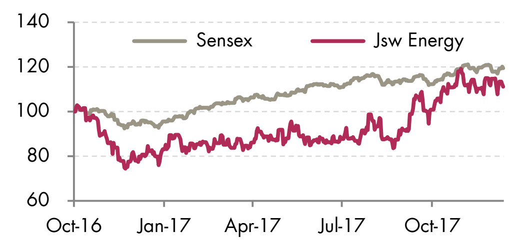
No. of Shares	: 1,640 mn
Market Cap	: Rs 132 bn
Free Float	: 25%
Avg. daily vol (6mth)	: 12.6 mn shares
52-w High / Low	: Rs 89 / Rs 55
Bloomberg	: JSW IB Equity
Promoter holding	: 75%
FII / DII	: 7% /6%

JSW Energy

POWER UTILITIES

Unleashing its potential

Price performance



Financial summary (consolidated)

Y/E Mar	Sales (Rs mn)	EBITDA (Rs mn)	Adj PAT (Rs mn)	EPS (Rs)	Change YOY (%)	P/E (x)	RoE (%)	EV/E (x)	BPS (Rs)	DPS (Rs)
FY17	80,464	33,244	6,185	3.8	(54.3)	21.2	6.2	7.6	63.7	2.1
FY18E	86,912	31,687	7,367	4.5	19.1	17.8	6.9	7.8	67.0	1.0
FY19E	95,489	32,645	9,234	5.7	25.3	14.2	8.2	7.1	71.4	1.1
FY20E	95,364	33,720	11,672	7.2	26.4	11.2	9.7	6.4	76.9	1.4

Source: Company, Axis Capital

Key drivers

Y/E March	FY18E	FY19E	FY20E
Generation (MU)	23,560	25,688	25,688
PPA share	69%	68%	77%
Realisation (Rs/unit)	3.8	3.8	3.7
Imported Coal* ($/ton)	57	62	59

*blended

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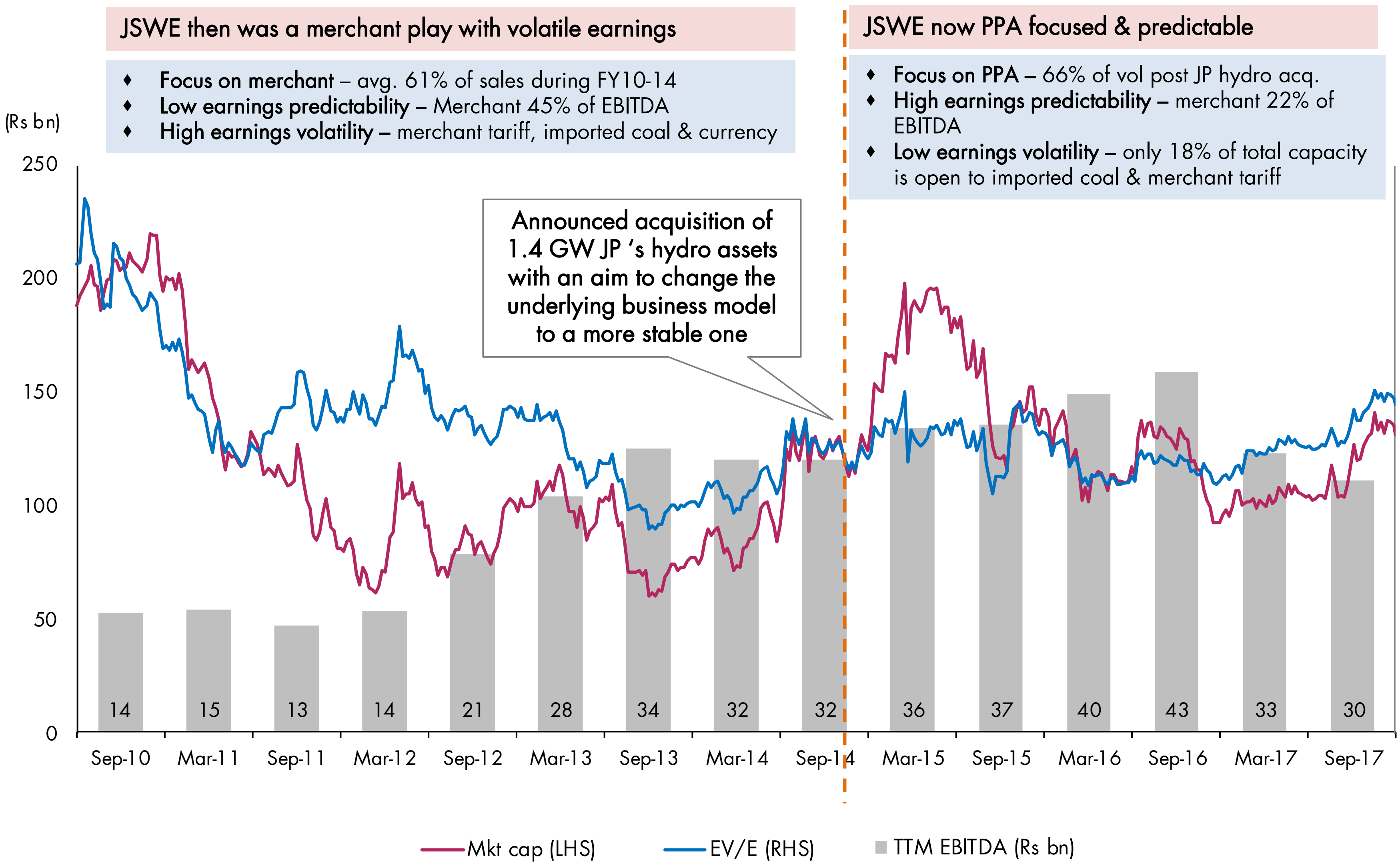
JSW Energy – no longer a merchant play!



JSW Energy: Transformed business model to increase predictability…

- **Building higher share of PPA – prudent strategy to increase earnings predictability**
  - JSW Energy (JSWE) has transformed to a well-balanced business model post acquisition of JP's hydro assets in FY16
  - Diversified fuel mix: Hydro: captive lignite: imported coal now at 31:24:45 vs. 0:35:65 in FY15
  - Balanced power off-take agreements: with long term: merchant proportion now at 70:30 vs. 50:50 in FY16
  - Lower dependence on merchant at ~16% of EBITDA in FY19E vs. ~43% in FY16
  - Strategy has helped JSWE withstand adverse macro in power sector (merchant tariffs dropped from Rs 4-5/kWh during FY10-FY15 to Rs 2.5/kWh in FY17)

- **Long term strategy includes inorganic growth (acquisition of distressed thermal assets)**
  - Increase PPA share – scouting PPA for open capacity at Vijaynagar (860 MW) and hydro (176 MW)
  - Focus on cost rationalization through replacement of imported coal with domestic coal and improve plant efficiency
  - Make balance sheet linear with refinancing of debt – to reduce cost of debt by 200 bps
  - Acquire distressed coal assets closer to mines and reasonable valuations that ensure min. 16% RoE at tariffs of Rs 3/kWh
  - Foray into Electric Vehicles and storage

- **JSW Energy – an efficient capital allocator, reflected by:**
  - Curtailed expansion in 2009 and conserved cash unlike peers who stretched their balance sheets
  - Acquired JP's hydro assets at attractive valuations (EPS and RoE accretive from day-1and IRRs of >18%)
  - JSWE has nil PPAs with fixed tariffs – all PPAs have fuel as a pass-through

…Upsides from acquisitions, PPAs, domestic coal linkage

- **JSWE has lowest capital cost vs. peers as well as current replacement cost**
  - Cost to build new coal based power plant is ~Rs70 mn/MW and hydro is >Rs 100 mn/MW
  - Coal-based capex for JSWE (Rs mn/MW): Vijaynagar at Rs 36 mn, Ratnagiri at Rs 45 mn and Rajasthan at Rs 66 mn/MW
  - Hydro: Acquisition of hydro assets at Rs 69 mn/MW
  - Operations & Maintenance (O&M) cost for JSWE coal assets is ~Rs 0.25/kWh vs. sector leader NTPC at ~Rs 0.45/kWh

- **Strategically located assets resulted in high PLF (4-yr avg of 77% vs. all-India thermal PLF of ~63%)**
  - Ratnagiri (1,200 MW): Plant located at port connected with conveyer belt and dedicated transmission lines
  - Vijaynagar (860 MW): Rail connectivity to 4 ports across east coast and west coast of India
  - Barmer (1,080 MW): Plant at pit-head of lignite mines
  - Hydro (1,391 MW): Run of the river plant with storage that can generate during morning and evening peaks

- **Further upside to earnings for JSWE to our base case scenario:**

1. PPA for 860 MW Vijaynagar plant by FY20
   - JSWE is well placed in Vijaynagar vs. peers to sign PPA, given its lowest cost structure (fixed cost of Rs 0.3/kWh)
   - 100% PPA to add 7% to consl. FY20 EBITDA vs. our base case and reduce earnings volatility considerably
2. Cost rationalization through replacement of imported coal by domestic coal linkage under SHAKTI scheme
   - Domestic coal is 40% cheaper; linkage for 50% of Vijaynagar can add ~7% to FY20 EBITDA vs. base case
3. Under leveraged balance sheet to aid inorganic growth – balance sheet bandwidth to acquire up to 3 GW capacity
   - Net D/E of 1.1x (H1FY18) despite acquisition of hydro assets + strong operating cash flows (Rs 34 bn in FY17)
   - Pre-requisites for acquisitions: Plant closer to pit head+ valuation that ensures 16% RoE even at tariff of Rs 3/kWh

Markets not pricing in JSW's merchant capacities

Axis Capital base case scenario

	Value (Rs bn)	Value (Rs/shr)	Target (EV/MW)	Comments
Regulated -Coal & Lignite	64	40	56	RoE of 18%; valued at 2x regulated equity
Regulated - Hydro	54	33	60	RoE of 20%; valued at 2x regulated equity
Merchant	27	17	36	EV/EBITDA at 6x FY20E merchant EBITDA
Cash	17	10		At book
SOTP- Target Price	162	100		

Markets are pricing in negative value for merchant capacities

	Value (Rs bn)	Value (Rs/shr)	Target (EV/MW)	Comments
Current market Cap	133	82		
Regulated -Coal & Lignite	64	40	56	Largely cost plus PPAs at core RoE of >18%, valued at 2x book
Regulated -Hydro	54	33	60	Cost plus PPAs with core RoE of 20%, hence valued at 2x
Excess cash	17	10		Valued at 1x
Residual Merchant	-2	-1		

Regulated book valuation – Peer comparison

(Rs bn)	Mcap	Value of other biz	Adj. Mcap	FY18E Regulated Equity- Operational assets	FY18E Regulated Equity- U/C assets	Total Regulated Equity	Implied P/BV (x)	ROE on operational assets
NTPC	1,482	0	1,482	596	253	848	1.7	17%
PGCIL	1,059	0	1,059	624	96	720	1.5	15%
NHPC	291	0	291	112	51	163	1.8	14%
Tata Power	247	39	208	148	0	148	1.7	8%

Large share of value now from regulated plants, merchant undervalued!

Source: Company, Axis Capital

BUY with TP of Rs 100

Reinitate BUY with TP of Rs 100

- Higher share of PPA (lower volatility to merchant prices) to increase predictability in earnings and rerate valuations
- We have assigned 2x book for regulated coal and hydro equity and 6x EV/EBITDA to FY20E merchant EBITDA and arrive to a SOTP- based TP of Rs100

Comforting valuations – favorable risk-reward

- At CMP, JSWE trades at P/E of 14x / 11x FY19E/20E EPS
- Three scenarios for JSWE and the subsequent upsides:

Scenarios	Assumption	Addition to FY 20 EPS from our base case (Rs)	Exit PE (x)	Upside over and above our fair value (Rs)	Upside over and above our fair value (%)
Scenario 1	PPA for Vijaynagar from FY20	1.2	15	25	25%
Scenario 2	Shift 50% of imported to domestic coal by FY20	1.1	15	24	24%
Scenario 3	Inorganic acquisition of 3 GW	1.5	15	29	29%

Either SC 1 or SC 2 will play out or it would be a mix of both

Electric Vehicle foray – too early to evaluate

- Scouting for partners and has earmarked Rs 40 bn towards this venture

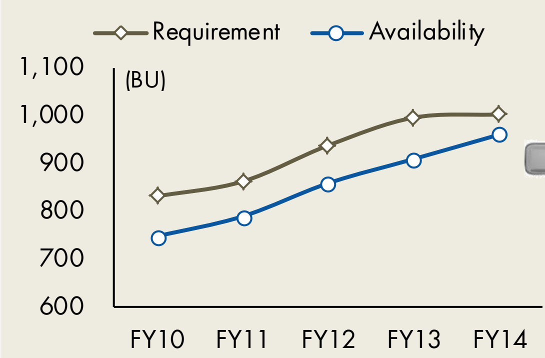
Key risks

- Imported coal prices, merchant tariffs, and currency impact on earnings

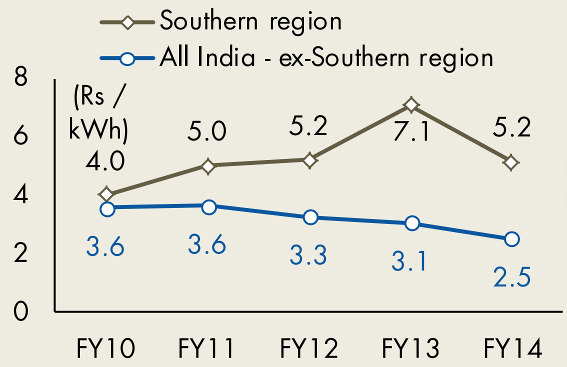
Strategy to increase PPA share helped withstand adverse macros

FY10 – 14

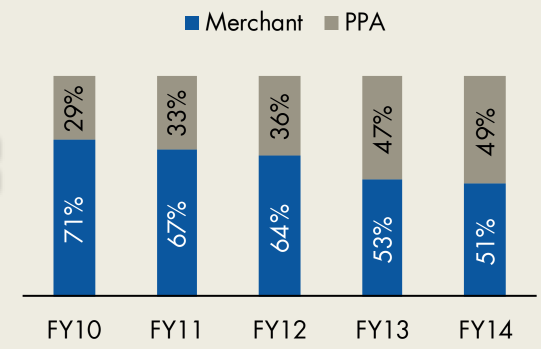
Power deficit ranged ~8% of total demand (delta for short term market)



Attractive merchant tariffs in Southern region was encouraging

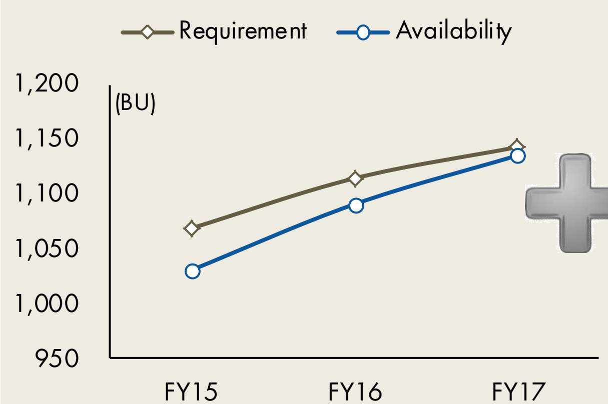


JSWE's avg. 61% of revenue (FY10-14) was under merchant

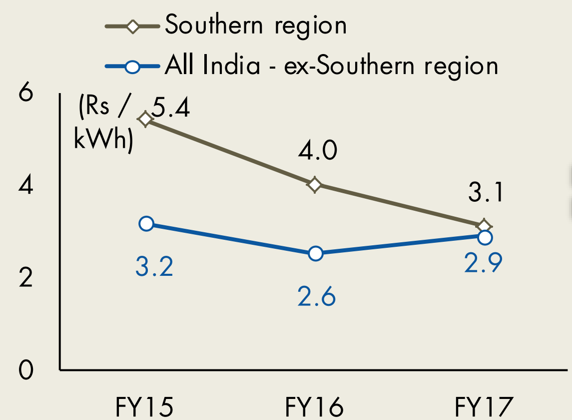


FY15 – 17

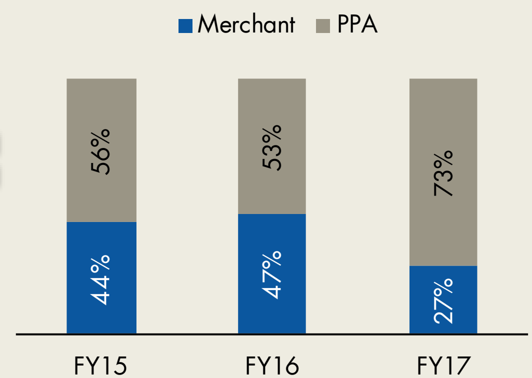
Gap between demand and supply narrowed to almost 1% in FY17



Merchant tariffs trended downwards owing to oversupply situation



Prudent strategy of JSWE to reduce dependence on merchant share



Source: CEA, IEX, Company, Axis Capital

Merchant contribution to EBITDA on a downward trend

Shifting gears – share of merchant volumes down from 44% in FY15 to 18% in FY17

(Rs mn)	FY15	FY16	FY17	FY18E	FY19E	FY20E
Merchant						
Revenue	39,783	41,572	20,933	26,924	32,022	23,556
EBITDA	12,979	15,926	6,714	7,412	5,042	4,483
Volume (MU)	8,935	9,575	3,903	6,981	8,143	5,911
Regulated						
Revenue	49,273	47,685	57,189	59,988	63,467	71,808
EBITDA	21,208	20,779	23,549	24,021	27,280	28,846
Volume (MU)	11372	12489	17728	16233	17545	19777
Total Consolidated						
Revenue	89,055	89,257	78,122	86,912	95,489	95,364
EBITDA	34,187	36,704	30,262	31,432	32,322	33,329
Volume (MU)	20,307	22,064	21,631	23,214	25,688	25,688
Merchant as % of consolidated						
Revenue	45%	47%	27%	31%	34%	25%
EBITDA	38%	43%	22%	24%	16%	13%
Volume	44%	43%	18%	30%	32%	23%

Source: Company, Axis Capital

Share of merchant in EBITDA declined from peak of 38% in FY15 to 22% in FY17 on JP hydro acquisition and PPA for Ratnagiri

Share of merchant to reduce to 13% from FY20 on 100% PPA of Ratnagiri

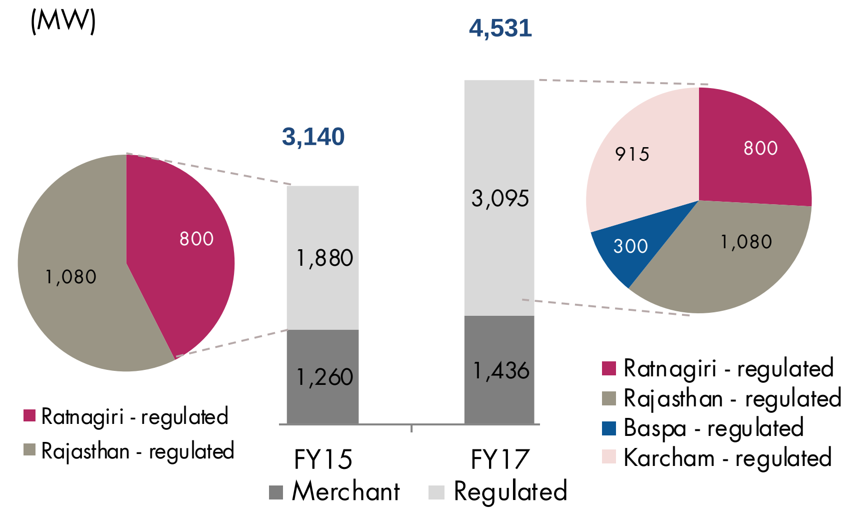
Merchant volumes to decline to 23% from FY20 on 100% PPA for Ratnagiri plant – in line with management guidance

Declining share of merchant volumes, higher share of PPA to increase earnings visibility

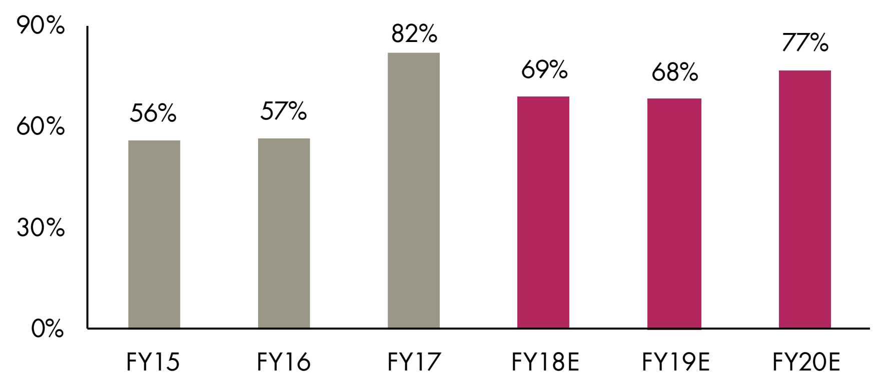
Earnings predictability to increase with larger pie of PPA

- **Acquired hydro assets under ~85% PPA**
  - Acquired JPVL's two hydro assets (0.3 GW Baspa and 1.1 GW Karcham) in Sep' 2015 at EV of Rs 97 bn
  - Key rationale was to increase its share of long term PPA and diversification of fuel mix
- **Post acquisition of the hydro, JSWE's nearly ~70% of the EBITDA will come from cost-plus PPA plants**
  - Ratnagiri (1.2 GW) would be 100% PPA by FY20E
    - Currently 400 MW is untied. Commissioning of JSW Steel expansion at Dolvi to 10 mtpa from 5 mtpa to drive 100% PPA
    - We have factored in 100% PPA for Ratnagiri from FY20 in our base case
- **Diversified fuel mix would lower the impact of imported coal price fluctuations on earnings**
  - Ratnagiri even though on imported coal has fuel pass through
  - From FY20, only Vijaynagar (~18% of total capacity) would be open to imported coal & merchant tariff risks

~70% of JSWE's capacity under PPA as of FY17



Higher share of PPA volumes to increase predictability in earnings



Source: Company, Axis Capital

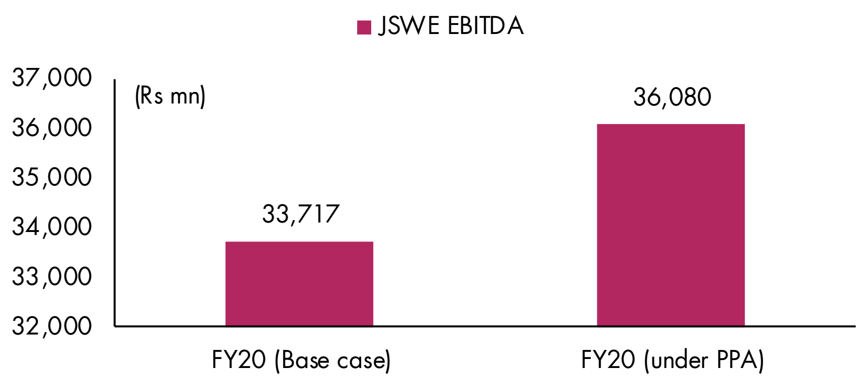
Key upside triggers…

- PPA for Vijaynagar plant
- Reduction in fuel cost through coal auctions under SHAKTI scheme
- Under levered balance sheet places JSWE in sweet spot to acquire stressed assets

Trigger 1– PPA for untied 860 MW Vijaynagar plant…

- 100% PPA for Vijaynagar to add 7% to FY20E EBITDA. Greater predictability = valuation rerating
  - **JSWE remains unsuccessful to tie up LT PPA for Vijaynagar till date, mainly due to lack of any PPA tenders over last 5 years**
    - Karnataka/ Andhra Pradesh SEBs sourcing peak demand from merchant and rapid growth in renewables
  - **Management remains confident to sign LT PPA in the long run**
  - JSWE is well placed vs. peers to sign PPA, given its lowest cost structure (fixed cost of just Rs 0.3/kWh)
  - 100% PPA at tariff of Rs 4.2/kWh would lead to ~80% higher FY20E EBITDA for Vijaynagar and ~7% for consolidated
  - Higher predictability to result in rerating

PPA for Vijaynagar to add 7% to FY20E EBITDA



Source: Company, Axis Capital
* Under current scenario, we have assumed nil PPA for Vijaynagar plant

Southern discoms haven't signed sufficient long term PPAs to meet their base load demand

States	IPP	Capacity	Tariff Rate
Karnataka	♦ Udipi Power	1,200 MW	Cost plus
Tamil Nadu	♦ 15 yrs multiple IPPs	3,300 MW	Rs 4.9/ kWh
	♦ 5 yrs Adani and JPL	400 MW	Rs 4.9/ kWh
Telangana	♦ TPCIL	840 MW	Rs 4.3/ kWh
Andhra Pradesh	♦ TPCIL	231 MW	Rs 4.1/kWh
	♦ Meenakshi	200 MW	Rs 4.1/kWh
	♦ Simapuri	400 MW	Rs 4.1/kWh

Source: State tariff orders, Axis Capital

…as southern states are deficient to meet their base load

Southern states have inadequate capacities to meet their base load demand

	Karnataka	AP	Telangana	Tamil Nadu
Demand-Supply scenario (FY18)				
Demand (MW) (A)	11,138	8,202	9,196	15,165
Surplus/(Deficit)	-5%	3%	-10%	15%
Demand growth past 10 years	6%	4%	-	6%
Coal Capacities (for base load demand)				
Total Thermal PPAs (B)	9,194	10,646	8,069	14,455
Capacities >25 years old due to retirement (C.)	765	1,051	1,292	3,937
Capacities <25 years old (ex of Gas) (B- C))	8,429	7,170	6,777	9,837
Optimum Utilization @ 85% PLF (D)	7,165	6,095	5,760	8,361
as a % of demand (D/A)	64%	74%	63%	55%
Seasonal Capacities (for peaking load)				
State owned Hydro	3,656	2,783	2,352	2,308
Private - Renewable	5,098	2,993	2,051	9,542
Seasonal capacities PLF adjusted (E.)	2,737	1,793	1,317	3,190
Total base load + PLF adj seasonal (D+E)=F	9,902	7,887	7,078	11,552
as % of demand (F/A)= G	89%	96%	77%	76%
Planned coal addition over next 5 years (H)	1,462	2,624	6,214	5,305
Total Supply over next 5 years (F+H)= I	11,364	10,511	13,292	16,857
Demand over next 5 years @ 6% CAGR	14,905	10,976	12,306	20,294

Abundant coal capacity shortfall to meet base load demand

Hydro and Wind generation during monsoon season. Solar only in day

Bulk of this would be back-ended

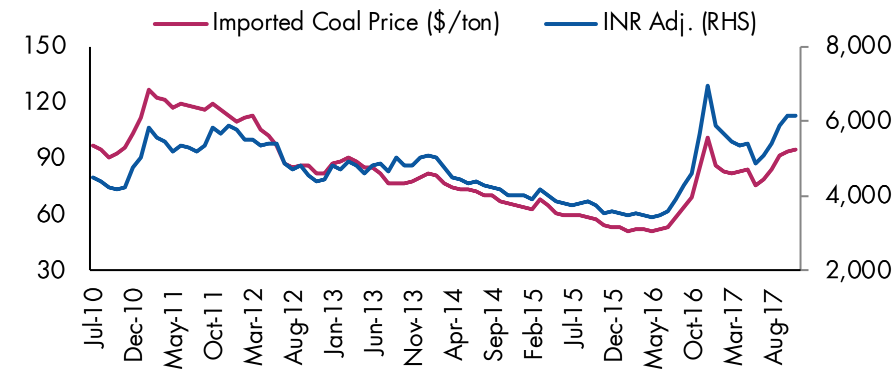
Source: CEA, Tariff filings of States, Merit Order, Axis Capital

Excluding seasonal capacity (wind+solar+hydro) and capacities due for retirement (> 25 years), Southern states have inadequate capacities to meet base load demand. Rising merchant tariffs in the exchanges will push them to sign PPAs

Trigger 2 – domestic coal linkage under SHAKTI

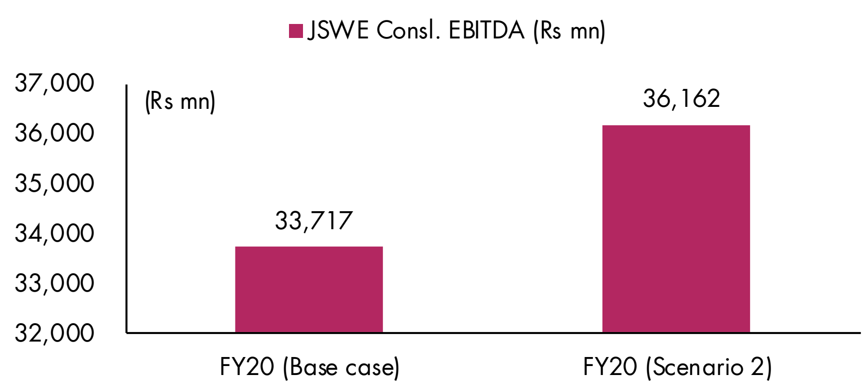
- International coal prices surged ~23%/~22% YoY in FY17/YTDFY18
- JSWE is eyeing domestic coal under SHAKTI Scheme
  - Under SHAKTI scheme union government will auction coal linkages. First round completed for plants based on domestic coal and with PPAs
  - Landed fuel cost/kWh at Vijaynagar would reduce by ~40% if it secures linkage from Talsher mines in Odisha
- Management targeting to substitute 50% of imported coal with domestic linkage under the SHAKTI

International coal prices soared ~22% in YTDFY18



Source: Bloomberg, Axis Capital

Shift from imported to domestic coal to add 7% to FY20 EBITDA



Domestic fuel cost/unit is ~40% cheaper vs. imported coal

	Imported Coal		Domestic Coal
	USD/ MT	INR/ MT	INR/ MT
FOB cost	**65**	**4,225**	**1,600**
Add: Freight cost	25	1,625	1,300
Add: Port handling	6	403	403
Add: Customs (@5.5%)	5	306	-
Total fuel cost (USD/ MT)	**101**	**6,559**	**3,303**
Less: coal cess		400	400
Landed fuel cost (Rs/ MT)		**6,959**	**3,703**
Fuel cost (Rs/ unit)		**2.9**	**2.1**
Reduction in fuel cost			39%

Source: Company, Axis Capital

Trigger 3 – balance sheet to aid inorganic growth

- One of the strongest balance sheet in the industry
  - Despite acquisition of hydro assets in FY16 at EV of Rs 97 bn, JSWE's net D/E stands at 1.1x as of H1FY18
- Strong operating cash flows (avg. Rs 34-35 bn) over FY15-17
- JSWE has balance sheet bandwidth to acquire up to 3 GW capacity at Rs 50 mn/ MW with raising fresh equity

Acquisition of 3 GW capacity to boost FY20E EBITDA by 81%

Particulars	Base Case	Post acquisition	Addition (%)
	FY20	FY20	
Capacity (MW)	4,531	7,531	66%
Generation (MU)	25,688	46,686	82%
Sales (Rs mn)	95,364	1,58,357	66%
EBITDA (Rs mn)	33,717	61,014	81%
Debt/ Equity (x)	1.0	2.1	

Details of Acquisition (Asset 1)	Particulars	Comments
Capacity (MW)	3,000	
Total capex (Rs mn)	150,000	Assuming Rs 50 mn/ MW capex
Debt (Rs mn)	127,500	D / E of 85:15
Internal accrual (Rs mn)	22,500	
Generation (MUs)	20,998	Assuming PLF of 80%
Realization/ unit (Rs/ kWh)	3.0	Equivalent to current renewable bids
EBITDA/ unit (Rsk/ kWh)	1.3	Cost of fuel of Rs1.3 /unit (plant at pit head of mine and O&M is Rs 0.2p /unit)
PAT/ unit (Rsk/ kWh)	0.4	Depreciation & interest of Rs 0.4/unit and Rs 0.3/unit respectively

Acquisition of Bina and Tanmar off the table now

Post acquisition of ~3 GW, leverage to increase to 2x and can be funded through internal accruals and debt

Source: Company, Axis Capital

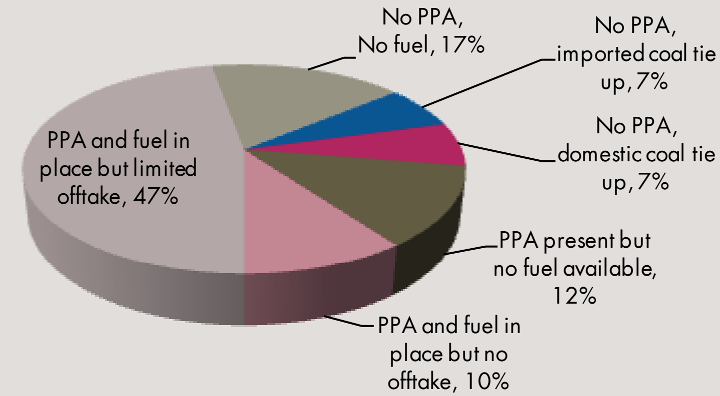
Huge set of power assets under stress and up for M&A

- ~90 GW capacity in India stranded or under stress
  - **42 GW**: PPA and fuel in place, **but limited offtake**
  - 15 GW: **No fuel, no PPA**
  - 11 GW: PPA present, **but no fuel available**
  - **9 GW:** PPA and fuel in place, **but no offtake**
  - **6 GW:** No PPA, but **imported coal tie-up**
  - **6 GW: No PPA** and domestic coal tie-up

JSWE targets to acquire distressed assets

- **JSWE to maintain 5-point check list for acquisition:**
  - plant closer to pit head
  - fuel security (coal linkage or mines won in auction)
  - significant PPA tie up
  - EPS and ROE accretive
  - reasonable valuation that ensures 16% RoEs at tariffs of Rs 3/kWh

Stranded capacities due to lack of PPA and fuel tie up



- Capacity addition reduced power deficit, but lower energy demand from discoms reduced thermal PLFs
- Thermal PLFs reduced to <60% vs. 80-85% earlier
- < 5GW PPA bids announced and signed since 2013

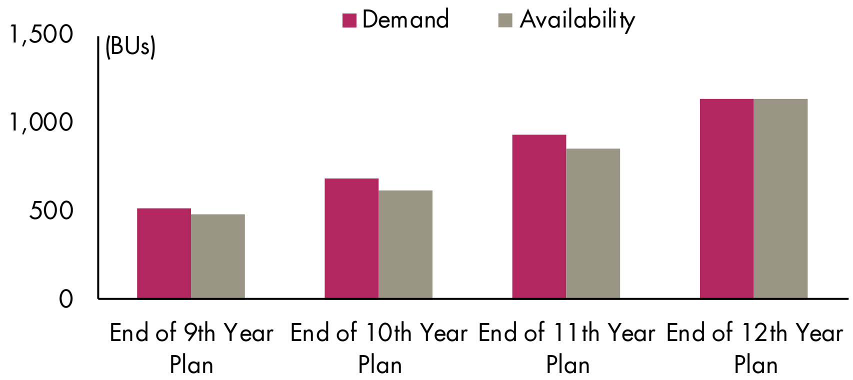
Source: Tata Power analyst presentation May 2017

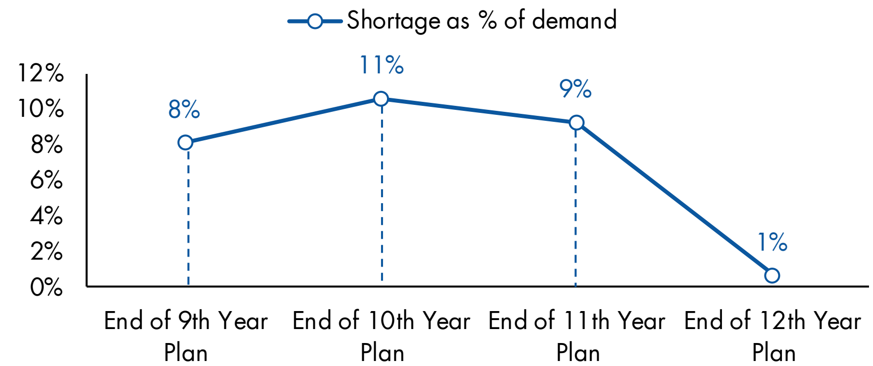
Sector tailwinds

- Slow demand attributed to reduction in energy deficit
- Capacity addition to be equivalent to retirement of old plants
- Thermal PLF to improve with pick up in demand

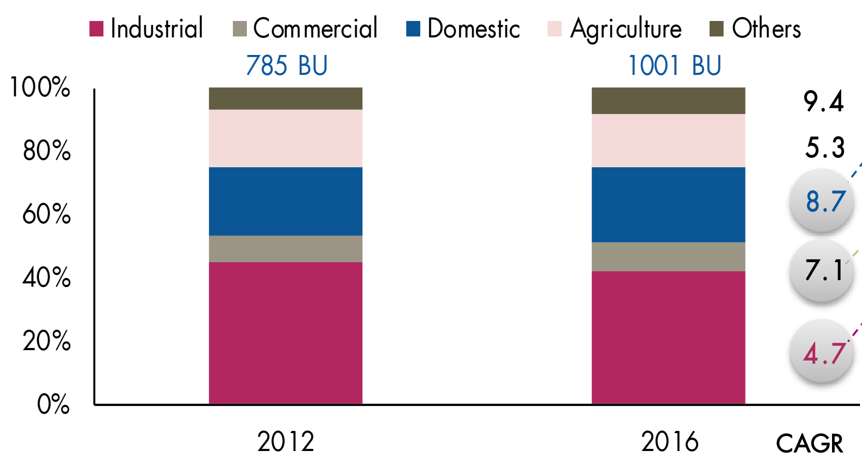
Tepid industrial demand hindered power sector growth

Reduction in energy deficit was mainly attributable to slow demand growth





Industrial witnessed slow growth; contributes > 40% of electricity demand



Domestic consumption improved mainly due to urbanization

Commercial segment experienced growth in line with economic activity

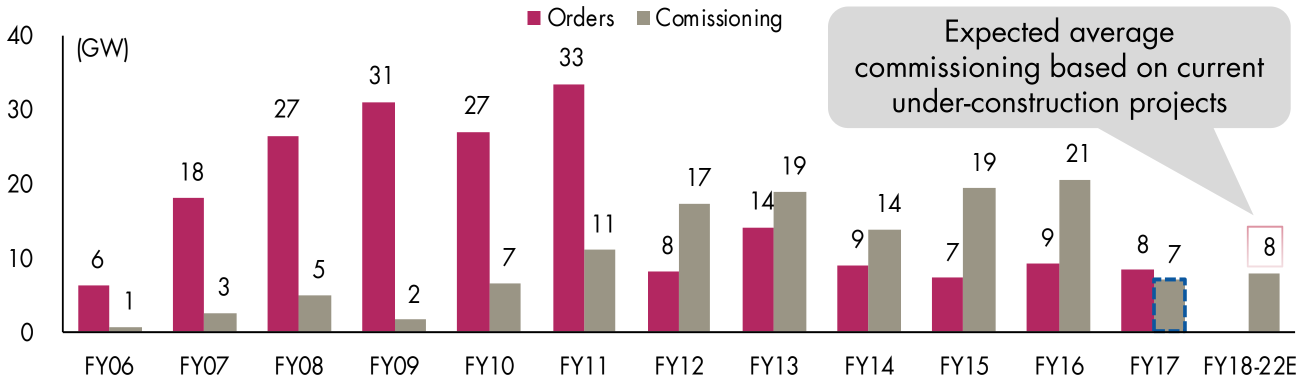
Industrial segment, largest consumer of power, witnessed slower growth (8% pa. from FY02-12 to 4.7% in FY12-17

Power demand grew by 5.2% in Q2FY18 on pick up in latent industrial demand mainly driven by: UP (+18%), Maharashtra (+8%), Telangana (+19%)

Source: CEA, Axis Capital

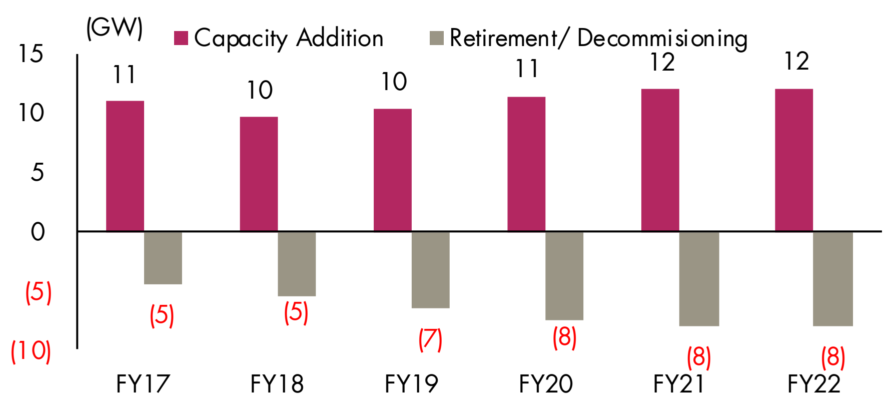
Retirement of old plants to limit capacity addition, to improve PLF

New capacity addition to fall from FY17 due to lower orders from FY12

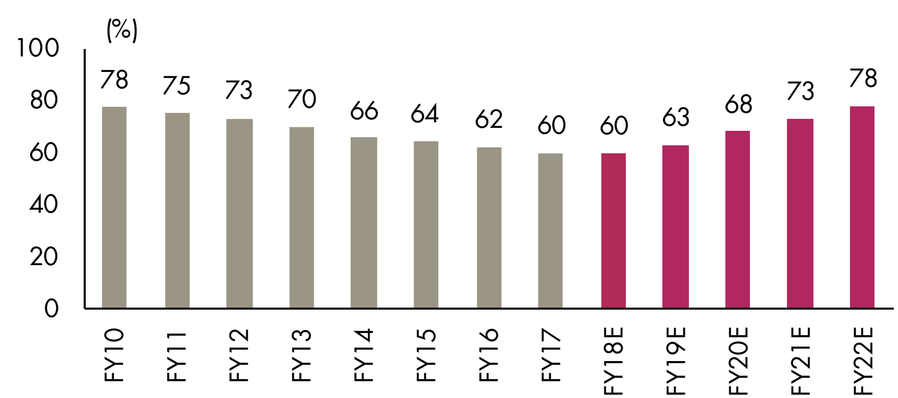


~35 GW out of 180 GW of coal-fired power plants are > 25 years old and have outlived their useful life. New emission norms will trigger scrapping them given their alarmingly-high emission levels, thereby limiting supply

Capacity addition to be almost equal to retirement of old plants



Limited capacity addition and uptick in demand to drive PLFs



Source: BHEL, CEA, Axis Capital

Electric vehicles – too nascent

Electric vehicles – an exciting space, but too early to evaluate

- **Electric vehicles:**
  - Management sounds opportunistic in the EV space and expects falling battery prices to be an inflection point
  - Earmarked capex of Rs 40 bn over next three years funded by a mix of debt and equity (D/E : 60:40)
  - Expects to launch first car by 2020 and is in discussion for technology tie-up with some partners
  - Rationale of entry into EV space:
    - Falling battery prices to be an inflection point for EV space
    - EV cars to have cost of running close to 20% of normal petrol or diesel car
    - Cost of maintenance of EV cars would be ~40% lesser vs. IC engine car
- **Storage systems:**
  - JSWE expects forward integration for its existing power business through entry into energy storage system
  - Plans to enter into technology partnership with companies to manufacture batteries both for mobility and static applications
  - To facilitate charging infrastructure, enabling forward integration to existing business and generate ecosystem for electric cars
- **As the business is nascent, we do not factor in any contribution from the same**

Valuation and peer comparison

Comforting valuations with favorable risk-reward

- **Scenario 1**: 80% PPA for Vijaynagar and subsequent 20% share of merchant in FY20 @ merchant tariff of Rs 4.5 /kWh
- **Scenario 2**: Shift from imported to domestic fuel for Vijaynagar + Ratnagiri plants by FY20
- **Scenario 3**: Inorganic growth on underleveraged balance sheet and strong operating cash flow position

Current Valuation under base case assumption	
	(Rs bn)
Current Mcap	130
PAT (FY19E)	11
EPS (Rs)	7
Assumed P/E multiple (x)	15
Target Price (Rs)	**100**
Upside to CMP (%)	**24%**

Scenario 1

Upsides to valuation in Scenario 1	
Current Mcap (Rs bn)	130
PAT -FY19E (Rs bn)	14
EPS (Rs)	8.3
Assumed P/E multiple (x)	15
Fair Value (Rs)	**125**
Upside to CMP (%)	**56%**

Scenario 2

Upsides to Valuations in scenario 2	
Current Mcap (Rs bn)	130
PAT -FY19E (Rs bn)	13
EPS (Rs)	8.3
Assumed P/E multiple (x)	15
Fair Value (Rs)	**124**
Upside to CMP (%)	**55%**

Scenario 3

Upsides to valuations in scenario 3	
Current Mcap	130
PAT (FY19E)	14
EPS (Rs)	8.6
Assumed P/E multiple (x)	15
Fair Value (Rs)	**129**
Upside to CMP (%)	**62%**

Source: Company, Axis Capital

Sound capital allocation vs. peers

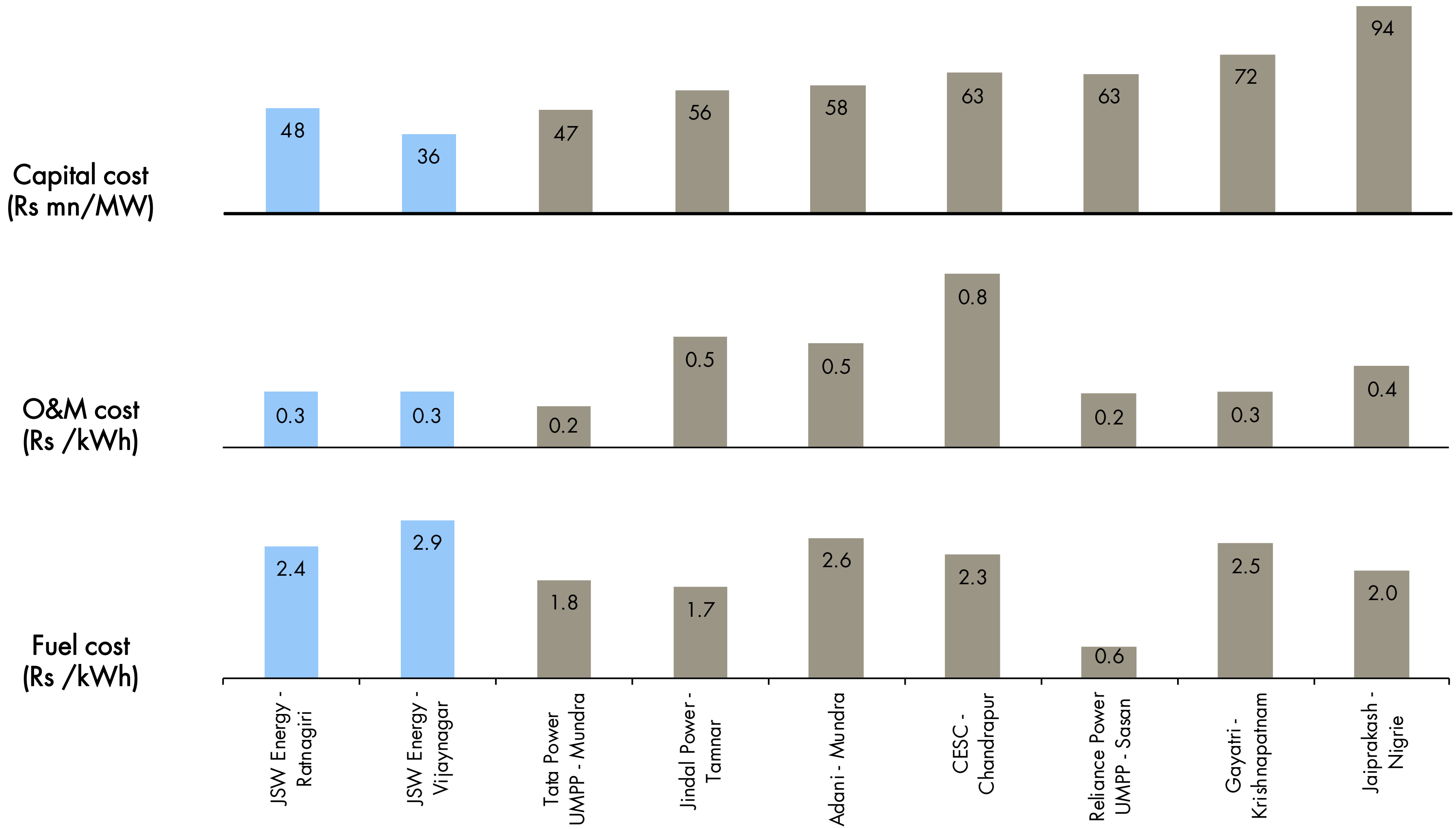
	JSW Energy		Adani Power		Jaiprakash Power		Tata Power		Reliance Power		Torrent Power	
	FY09	FY17	FY09	FY17	FY09	FY17	FY09	FY17	FY09	FY17	FY09	FY17
Capacity (MW)												
-Installed	260	3,140	-	8,680	700	4,200	2,785	8,613	-	5,945	-	3,652
-Under construction	2,880	-	6,600	-	1,500	-	5,481	800	9,460	2400	3,795	
-Under development	8,250	-	3,300	-	11,270	-	5,670	-	24,020			
-Acquired/ (sold)	-	1,391	-	1,800	-	(1,391)	-	1,149	-	-	-	-
Total target capacity	**11,390**	**4,531**	**9,900**	**10,480**	**13,470**	**2,809**	**13,936**	**10,562**	**33,480**	**8,345**	**3,795**	**3,652**
D:E (x)	4.0	1.4	2.3	16.4	0.8	2.2	1.5	3.2	0.1	1.4	1.0	1.3
RoE (%)	22	6	-0	NA	14	-14	16	5	2	5	13	6
Cash PAT (Rs bn)	3	6	-0	-35	5	-4	19	28	2	18	6	14
Market cap (Rs bn)	183	134	252	140	168	30	170	244	245	135	35	111
EV (Rs bn)	244	270	342	624	23	244	309	731	223	417	62	190

Source: Bloomberg, Company, Axis Capital

- JSWE curtailed expansion in 2009, while peers went aggressive in expansions and stretched their balance sheets. Instead, JSWE acquired JVPL's hydro assets only in FY16 at an EV of Rs 97 bn
- Despite ~40% capacity addition with acquisition of hydro assets, JSWE maintained its D/E of 1.1x as of H1FY18. We believe JSWE is in sweet spot to acquire stressed assets given its balance sheet bandwidth and strong operational cash flows

JSWE plants have lowest capital and running cost

JSWE has one of the most competitive fixed cost structure which partially negates their higher fuel cost



Source: Companies, Axis Capital
Data as on FY17

Track record of RoE-accretive acquisitions

Acquisition of hydro assets led to 26% addition to FY17 PAT

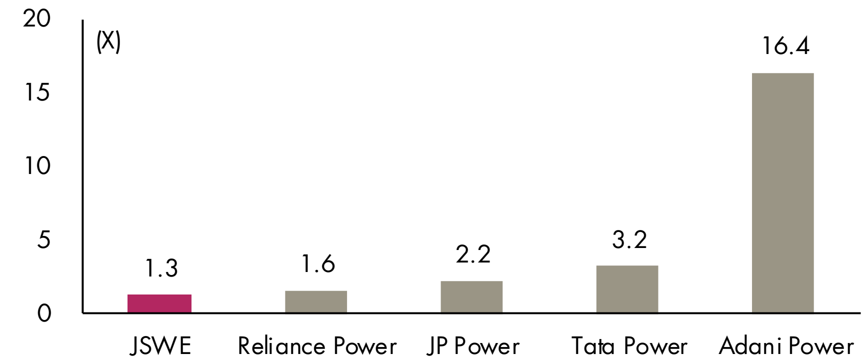
	FY17	
(Rs mn)	Pre-acquisition*	Post acquisition
Sales	65,945	80,464
EBITDA	22,358	35,414
PAT	4,977	6,290
EPS	3.1	3.9
Addition to base EPS		**26%**

(Rs mn)	FY17			
	Sales	EBITDA	PAT	RoE
Karcham	12,145	10,447	785	7%
Baspa	2,373	2,610	528	19%
Total	**14,519**	**13,056**	**1,314**	**9%**

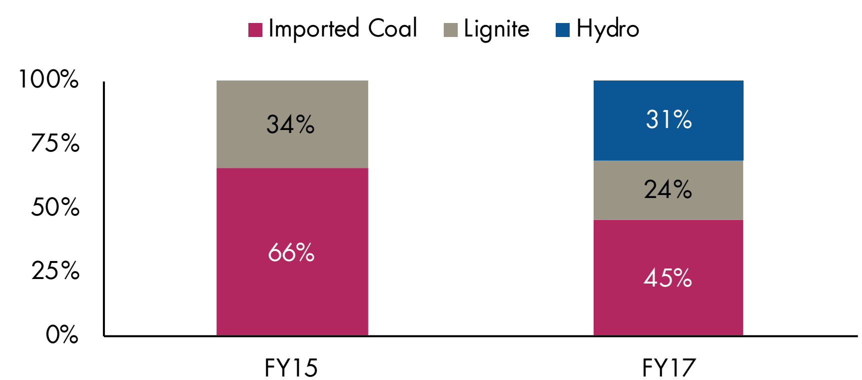
	FY17	
(Rs mn)	Pre-acquisition*	Post acquisition
Networth	89,190	1,03,708
Gross Debt	73,223	1,43,498
Cash	7,108	7,843
Capital employed	1,55,305	2,39,364
Book value (Rs/sh)	55	64
RoE (%)	5.6	6.1
Net D:E (x)	0.7x	1.3x

** Factoring in no acquisition of hydro assets*

Despite acquisition of hydro assets, JSWE has one of the most linear balance sheets



Diversification of fuel mix post acquisition of hydro assets



Annexure

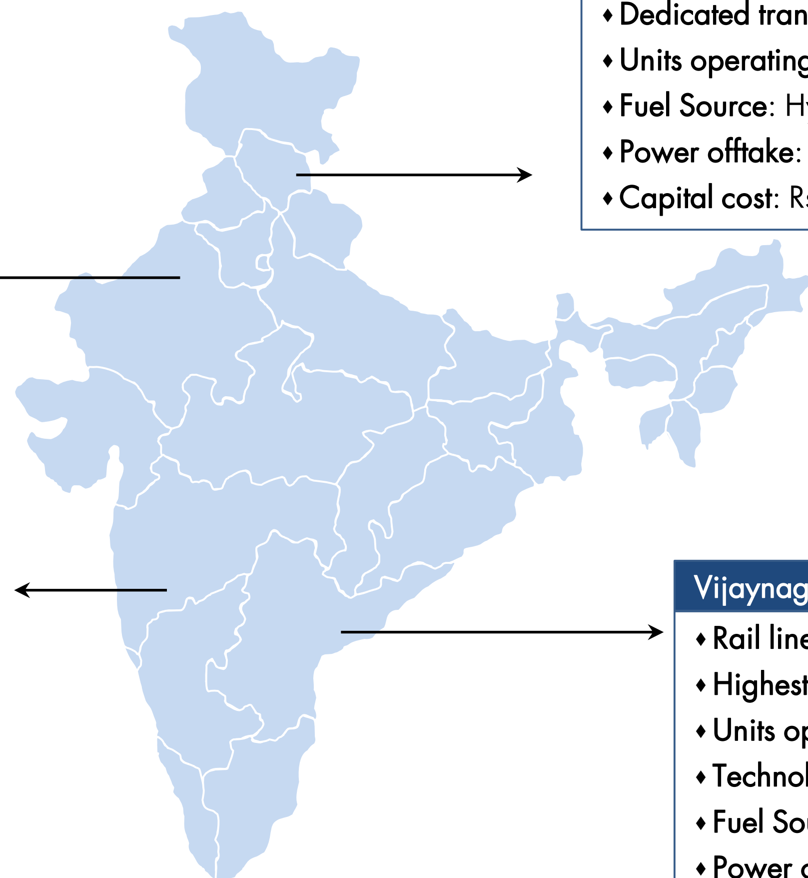
JSW Energy: Strategically located assets

Baspa II : 300 MW + Karcham Wangtoo: 1,091

- **Run of the river plants**
- **Dedicated transmission line**
- **Units operating**: Baspa- 2003, Karcham- 2012
- **Fuel Source**: Hydro
- **Power offtake**: Long term PPA + merchant
- **Capital cost**: Rs 60 mn /MW

Barmer: 1,080 MW

- **Plant at pit head**
- **Units operating**: since 2010
- **Technology**: Sub-critical TPP
- **Fuel Source**: Captive lignite mines of BLMCL*
- **Power offtake**: Long term PPA
- **Capex**: Rs 66 mn /MW



Ratnagiri: 1,200 MW

- **Plant at port+ dedicated transmission lines**
- **Units operating**: since 2011
- **Technology**: Sub-critical TPP
- **Fuel Source**: Imported thermal coal
- **Power offtake**: Long term PPA+ merchant
- **Capex**: Rs 48 mn /MW

Vijaynagar: 860 MW

- **Rail lined to east and west coast**
- **Highest deficit region**
- **Units operating**: since 2000
- **Technology**: Sub-critical TPP
- **Fuel Source**: Imported thermal coal
- **Power offtake**: Merchant
- **Capital cost**: Rs 36 mn /MW

Source: Company, Axis Capital
*Barmer Lignite Mining Company Ltd

JSW Energy: Plant-wise dynamics

	Vijaynagar - I	Vijaynagar - II	Ratnagiri	Rajasthan	Baspa II	Karcham
Capacity (MW)	260	600	1200	1080	300	1091
Cost (Rs / MW)	46	31	48	66	51	68
PLF (%)						
FY16	90	85	82	85	26*	27*
FY17	59	59	64	67	51	50
FY18E	65	65	70	75	51	50
Units sold (MU)						
FY16	1,886	4,110	7,844	7,238	1,106	3,915
FY17	1,236	2,853	6,074	5,705	1,160	3,807
FY18E	1,362	3,143	6,696	6,386	1,106	4,050
Fixed cost (Rs/kWh)						
FY16	0.6	0.7	1.1	1.4	-	-
FY17	1.0	0.9	1.3	1.7	0.9	1.9
FY18E	0.9	0.8	1.0	1.5	1.0	1.7
Variable cost (Rs/kWh)						
FY16	2.6	2.6	2.3	1.8	-	-
FY17	3.0	2.9	2.4	2.0	0.3	0.4
FY18E	3.6	3.5	3.0	2.0	0.3	0.4
Realisation (Rs/kWh)						
FY16	4.9	4.9	3.7	4.1	-	-
FY17	4.3	4.3	3.7	4.0	1.9	3.7
FY18E	4.1	4.1	3.8	4.0	2.3	3.5
EBITDA (Rs mn)						
FY16	3,746	8,741	9,118	16,948	-	-
FY17	903	3,277	5,279	11,124	1,821	10,447
FY18E	116	1,222	3,003	12,377	2,141	12,040

*Acquired hydro assets in Sept'15

Source: Company, Axis Capital

Company financials (Consolidated)

Profit & loss (Rs mn)

Y/E March	FY17	FY18E	FY19E	FY20E
Net sales	80,464	86,912	95,489	95,364
Other operating income	2,170	2,235	2,302	2,371
Total operating income	**82,634**	**89,147**	**97,791**	**97,735**
Cost of goods sold	-	-	-	-
Gross profit	82,634	89,147	97,791	97,735
Gross margin (%)	*102.7*	*102.6*	*102.4*	*102.5*
Total operating expenses	(49,391)	(57,460)	(65,146)	(64,015)
EBITDA	**33,244**	**31,687**	**32,645**	**33,720**
EBITDA margin (%)	*41.3*	*36.5*	*34.2*	*35.4*
Depreciation	(9,692)	(10,054)	(10,127)	(9,972)
EBIT	**23,552**	**21,633**	**22,518**	**23,748**
Net interest	(16,848)	(14,252)	(12,733)	(11,340)
Other income	2,170	2,170	2,170	2,170
Profit before tax	**8,875**	**9,552**	**11,955**	**14,578**
Total taxation	(2,690)	(2,185)	(2,721)	(2,906)
Tax rate (%)	*30.3*	*22.9*	*22.8*	*19.9*
Profit after tax	6,185	7,367	9,234	11,672
Minorities	-	-	-	-
Profit/ Loss associate co(s)	-	-	-	-
Adjusted net profit	6,185	7,367	9,234	11,672
Adj. PAT margin (%)	*7.7*	*8.5*	*9.7*	*12.2*
Net non-recurring items	-	-	-	-
Reported net profit	6,185	7,367	9,234	11,672

Balance sheet (Rs mn)

Y/E March	FY17	FY18E	FY19E	FY20E
Paid-up capital	16,280	16,280	16,280	16,280
Reserves & surplus	87,405	92,859	99,933	108,871
Net worth	103,685	109,139	116,212	125,151
Borrowing	143,498	129,862	116,226	102,590
Other non-current liabilities	5,801	5,801	5,801	5,801
Total liabilities	**253,007**	**244,825**	**238,263**	**233,565**
Gross fixed assets	240,934	244,434	247,934	251,434
Less: Depreciation	(52,476)	(62,530)	(72,657)	(82,630)
Net fixed assets	188,457	181,903	175,276	168,804
Add: Capital WIP	5,269	5,300	5,300	5,300
Total fixed assets	193,726	187,203	180,576	174,104
Total Investment	27,969	27,969	27,969	27,969
Inventory	5,967	4,723	5,355	5,261
Debtors	21,828	18,611	17,929	17,905
Cash & bank	7,843	748	3,056	5,681
Loans & advances	10,011	9,305	10,245	10,232
Current liabilities	32,881	22,278	25,412	26,132
Net current assets	12,768	11,109	11,173	12,948
Other non-current assets	18,544	18,544	18,544	18,544
Total assets	**253,007**	**244,825**	**238,263**	**233,565**

Source: Company, Axis Capital

Company financials (Consolidated)

Cash flow (Rs mn)

Y/E March	FY17	FY18E	FY19E	FY20E
Profit before tax	8,875	9,552	11,955	14,578
Depreciation & Amortisation	9,692	10,054	10,127	9,972
Chg in working capital	*4,555*	*(5,437)*	*2,244*	*851*
Cash flow from operations	38,314	26,236	34,338	33,836
Capital expenditure	*(3,725)*	*(3,531)*	*(3,500)*	*(3,500)*
Cash flow from investing	(13,440)	(3,531)	(3,500)	(3,500)
Equity raised/ (repaid)	*-*	*-*	*-*	*-*
Debt raised/ (repaid)	*3,054*	*(13,636)*	*(13,636)*	*(13,636)*
Dividend paid	*(3,356)*	*(1,635)*	*(1,847)*	*(2,334)*
Cash flow from financing	(17,740)	(30,113)	(28,806)	(27,900)
Net chg in cash	7,134	(7,407)	2,032	2,436

Valuation ratios

Y/E March	FY17	FY18E	FY19E	FY20E
PE (x)	21.2	17.8	14.2	11.2
EV/ EBITDA (x)	7.6	7.8	7.1	6.4
EV/ Net sales (x)	3.1	2.8	2.4	2.2
PB (x)	1.3	1.2	1.1	1.0
Dividend yield (%)	2.6	1.2	1.4	1.8
Free cash flow yield (%)	0.3	0.2	0.2	0.2

Source: Company, Axis Capital

Key ratios

Y/E March	FY17	FY18E	FY19E	FY20E
OPERATIONAL				
FDEPS (Rs)	3.8	4.5	5.7	7.2
CEPS (Rs)	9.8	10.7	11.9	13.3
DPS (Rs)	2.1	1.0	1.1	1.4
Dividend payout ratio (%)	54.3	22.2	20.0	20.0
GROWTH				
Net sales (%)	(16.1)	8.0	9.9	(0.1)
EBITDA (%)	(17.4)	(4.7)	3.0	3.3
Adj net profit (%)	(54.2)	19.1	25.3	26.4
FDEPS (%)	(54.3)	19.1	25.3	26.4
PERFORMANCE				
RoE (%)	6.2	6.9	8.2	9.7
RoCE (%)	10.2	9.6	10.2	11.0
EFFICIENCY				
Asset turnover (x)	0.4	0.4	0.4	0.5
Sales/ total assets (x)	0.3	0.3	0.4	0.4
Working capital/ sales (x)	0.1	0.1	0.1	0.1
Receivable days	99.0	78.2	68.5	68.5
Inventory days	44.1	30.0	30.0	30.0
Payable days	238.8	147.8	143.5	145.8
FINANCIAL STABILITY				
Total debt/ equity (x)	1.4	1.2	1.0	0.8
Net debt/ equity (x)	1.2	1.1	0.9	0.7
Current ratio (x)	1.4	1.5	1.4	1.5
Interest cover (x)	1.4	1.5	1.8	2.1

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