30 December 2024 Update | Sector: Utilities





**BSE SENSEX** 78,248 **S&P CNX** 23,645



Stock Info

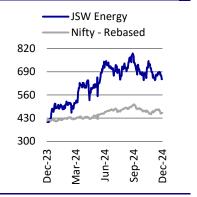
SLOCK IIIO	
Bloomberg	JSW IN
Equity Shares (m)	1748
M.Cap.(INRb)/(USDb)	1124.7 / 13.1
52-Week Range (INR)	805 / 404
1, 6, 12 Rel. Per (%)	0/-11/49
12M Avg Val (INR M)	2334
Free float (%)	30.7

#### Financials Snapshot (INR b)

Y/E March	FY24	FY25E	FY26E
Sales	114.9	146.0	168.0
EBITDA	53.8	72.0	88.0
Adj. PAT	17.2	27.6	33.7
EPS (INR)	10.5	15.8	19.3
EPS Gr. (%)	24.2	50.4	22.1
BV/Sh.(INR)	127.0	132.5	148.8
Ratios			
Net D:E	1.2	1.5	1.6
RoE (%)	8.7	12.5	13.7
RoCE (%)	7.7	9.3	9.6
Payout (%)	19.0	17.1	15.6
Valuations			
P/E (x)	61.1	40.7	33.3
P/BV (x)	5.1	4.8	4.3
EV/EBITDA (x)	24.4	20.3	17.4
Div. Yield (%)	0.3	0.4	0.5
FCF Yield (%)	-4.4	-7.6	-6.0

As On	Sep-24	Jun-24	Sep-23
Promoter	69.3	69.3	73.4
DII	9.8	9.2	9.9
FII	15.1	15.6	8.6
Others	5.8	5.9	8.1

### Stock Performance (1-year)





# CMP: INR644

## TP: INR816 (+27%)

Buv

## Wind capacity advantage & PPA visibility: Key differentiators vs peers

Focus on sustaining returns in 2025; cash flow visibility

- While the 2024 YTD witnessed a broad-based rally, with the five power utility stocks in our coverage up 7-52%, we believe that in 2025, the valuation premium commanded by Renewable Energy (RE) generation players will be a function of: 1) the ability to sustain returns by up-trading into niche business models, e.g. Firm and Dispatchable Renewable Energy (FDRE), and 2) the ability to maintain high earnings/cash flow visibility, given the ongoing delays in PPA signings that have recently plagued the sector (<u>link</u>).
- On both these parameters, we highlight JSW Energy (JSWE) as our preferred pick in the power utility space. The company is set to raise its installed capacity to 20 GW (ex-KSK Mahanadi acquisition) by FY28-end (2QFY25-end: 7.7GW). JSWE's strong experience of operating wind assets (2.1GW operational vs 0.1/1.6GW for NTPC Green/Adani Green) is key to up-trading into FDRE bids, where tender announcements have been strong at ~9GW in 2024 YTD (2023: 11GW). With returns from plain vanilla solar/wind projects becoming commoditized, we believe FDRE tenders are critical for sustaining mid-to-high teen equity returns. Moreover, despite recent concerns over delays in PPA tie-ups, JSWE has secured PPAs for 66% (7.7GW) of its RE pipeline vs 34%/37% GW for NTPC Green/ Acme Solar, respectively.
- Our SOTP-based target of INR816 for JSWE values the renewable business at 15x FY27 EBITDA, the thermal business at 10x FY27 EBITDA, and the hydro business at 3x FY27 book value. We also highlight INR60 in option value relating to the KSK Mahanadi acquisition and INR57 relating to O2 Power acquisition (<u>link</u>).

## JSWE's wind capacity advantage positions it strongly to win FDRE tenders

- Over 11 GW of FDRE tenders were issued in 2023, and this figure has remained strong at 9 GW till Dec'24, driven by nodal agencies such as SECI and SJVN. Given the need of discoms to meet base demand, we believe FDRE tenders could dominate future bids, becoming the preferred tendering model (over plain vanilla RE) for renewable energy procurement.
- FDRE tenders typically involve solar + wind + battery deployment. As such, an established track record in operating wind assets is crucial for successfully executing these tenders. As of 2QFY25, JSWE's total operational capacity was 7.7 GW, with wind accounting for 28% (2,166 MW). This places JSWE ahead of peers such as NTPC Green, where wind accounts for just 3% of operational capacity (100MW as of 1HFY25-end), and Adani Green, where wind accounts for only 15% (1,680 MW).
- While there have been recent concerns that solar + storage could replace the need for wind, ReNew, a leading RE player in India, estimates that adding wind to solar + storage reduces the levelized cost of energy by INR0.2-0.3/kWh and leads to ~1% higher project IRR.

### Abhishek Nigam - Research Analyst (Abhishek.Nigam@MotilalOswal.com)

Preksha Daga – Research Analyst (Preksha.Daga@MotilalOswal.com)

Investors are advised to refer through important disclosures made at the last page of the Research Report.

Motilal Oswal research is available on www.motilaloswal.com/Institutional-Equities, Bloomberg, Thomson Reuters, Factset and S&P Capital.



## Strong PPA backing ensures earnings/cash flow visibility

- JSWE recently secured 445MW of C&I projects, bringing its total locked-in generation capacity to 20 GW. This includes 7.7 GW of operational capacity, 2.1 GW under construction (with commissioning expected by FY25-end), and a robust RE pipeline of ~10.2 GW. Note that this excludes 1.8 GW attributable to KSK Mahanadi, where JSWE's proposal has been declared the highest financial proposal received by the Resolution Professional.
- While there have been recent concerns around generation companies struggling to secure PPAs (link), JSWE has secured long-term PPAs for 66% (7.7GW) of its RE pipeline, with only 3.9GW of capacity still awaiting PPAs. This compares favorably with peers such as ACME Solar and NTPC Green, which have secured PPAs for 37% (1.6GW) and 34% (4.5GW) of their respective RE pipelines. Further, of the 3.9GW awaiting PPAs for JSWE, 1.5GW is related to Group captive projects while only 2.4GW pertains to third parties.

## Valuation premium seems well-deserved in light of recent IPOs

- Historically, key investor pushback on JSWE has been centered around premium valuations, with the implied valuation for the RE portfolio at 15x EV/EBITDA (assuming thermal EBITDA is valued at 9-10x EV/EBITDA).
- In our SOTP-based valuation, JSWE's RE portfolio is valued at 15x FY27 EV/EBITDA (FY28 EBITDA discounted by one year). This valuation aligns closely with NTPC Green Energy, which is currently trading at ~16x FY27 EV/EBITDA.
- We acknowledge NTPC Green's superior financing cost advantage, with up to 1-1.5% lower borrowing costs over JSWE. However, we believe JSWE has an edge over NTPC Green due to its established track-record in operating wind assets, inhouse EPC, and O&M, which help save costs and provide higher PPA visibility for its under-construction pipeline. JSWE's diverse capabilities also better position it to protect IRRs, especially as returns in plain vanilla solar/wind projects have been under pressure.
- According to our estimates, JSWE is trading at 13x FY27E vs 16x for NTPC Green.



## JSWE's wind capacity edge positions it strongly to win FDRE tenders

In June'23, the Ministry of Power issued guidelines for the 'Tariff Based Competitive Bidding Process for Procurement of FDRE from Grid Connected RE Power Projects with Energy Storage Systems (ESS).' Since then, over 11 GW of FDRE tenders were issued in 2023, and this figure has remained strong at 9 GW by Dec'24, driven by nodal agencies such as SECI and SJVN. We believe FDRE is set to become the preferred model for renewable energy procurement in the future.

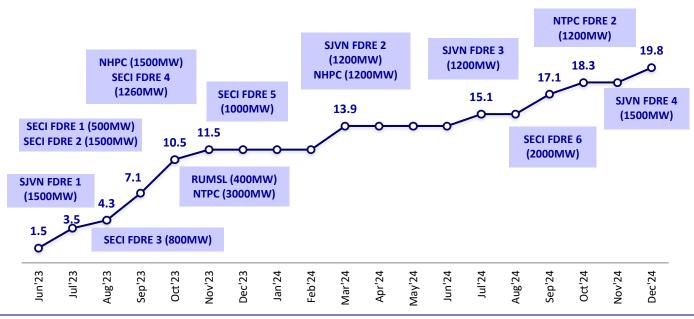
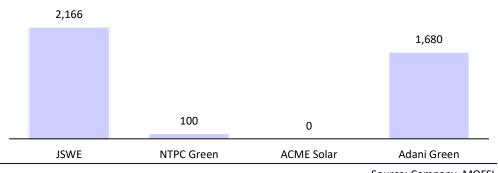


Exhibit 1: FDRE tenders – FY23-24 (GW)

Source: SECI, SJVN, JMK Research, MOFSL

FDRE tenders typically involve solar + wind + battery deployment. Therefore, an established track record in installing and operating wind assets is crucial for successfully executing FDRE tenders. As of 2QFY25, JSWE's total operational capacity was 7.7 GW, with wind comprising 28% (2,166 MW). This positions JSWE ahead of peers such as NTPC Green, where wind accounts for just 3% (100MW) of operational capacity, Adani Green, where wind makes up only 15% (1,680 MW), and ACME Solar, which has no operational wind capacity.

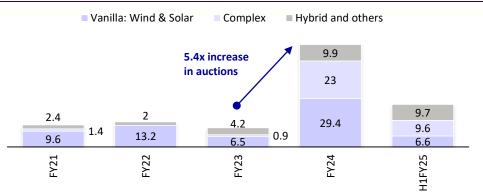




Source: Company, MOFSL



- Wind generation profile matches the night demand: While solar power is best suited for meeting daytime demand, wind is well suited for peak and base load demand at night, as India's morning and evening peak power demand aligns well with the wind generation profile.
- Mytrah acquisition was key to strengthening wind advantage: In FY23, JSWEacquired the assets of Mytrah, totaling 1,753 MW in capacity (10 Wind SPVs with a generation capacity of 1,331 MW and 7 Solar SPVs with a generation capacity of 422 MW). The transaction valued the Mytrah Energy portfolio at INR105b, with the assets secured by long-term PPAs and an expected operational life of ~17 more years. The Mytrah asset played a crucial role in providing JSWE with valuable experience in turning around and operating wind assets.



#### Exhibit 3: Increase in RE auctions (GW)

Source: ReNew, MOFSL

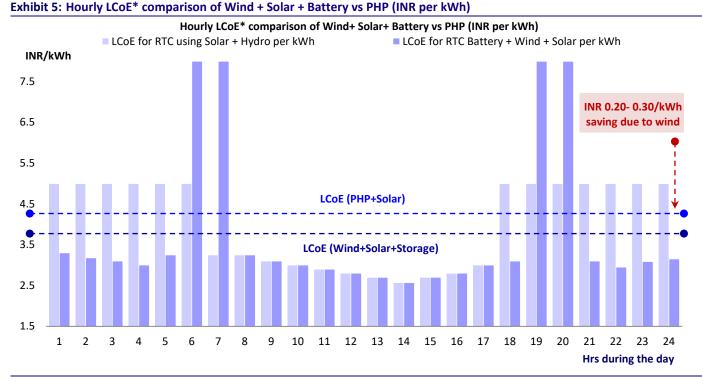
#### Exhibit 4: Key metrics across the renewable energy auction segments

			v	
Type of Project	Firm Power	Solar and Hybrid	Corporate PPAs	Vanilla Wind
GWs currently up for auction	8-10 GW	30-35 GW	Utility scale projects > 25 MW	5-6 GW
No. of competitors	4-5 (60% market share)	~12-14 (Large scale 6-8)	~6-8	~4-5 (Large scale 2-3)
Indicative range of IRRs	High teens	Mid to low teens	Mid-teens	Low teens
Counterparty/ offtake	Central bidding agencies	Central + GUVNL	International and domestic corporates	Central + States

Source: ReNew, MOFSL

While there have been recent concerns that solar + storage can replace the need for wind, ReNew, a leading RE player in India, estimates that adding wind to solar + storage reduces the levelized cost of energy by INR 0.2-0.3/kWh and leads to ~1% higher project IRR.





Source: ReNew, MOFSL

Backward integration to enable better operational and cost control: In Oct'24, JSWE further enhanced its wind capabilities through a technology licensing agreement with SANY Renewable Energy Co. Ltd. for the manufacturing of wind turbine blades in India, ensuring cost efficiencies, quality control, and timely equipment supply.

## 20 GW capacity locked in; capacity backed by PPAs higher than peers

- JSWE recently secured 445MW of C&I projects, achieving a total locked-in generation capacity of 20 GW. This includes 7.7 GW of operational capacity, 2.1 GW under construction (with commissioning expected by FY25-end), and a robust RE pipeline of ~10.2 GW.
- While there have been recent concerns around generation companies struggling to secure PPAs (link), JSWE has secured long-term PPAs for 66% (7.7GW) of its RE pipeline, with only 3.9GW of capacity still awaiting PPAs. This compares favorably with peers such as ACME Solar and NTPC Green, which have achieved PPAs for 37% (1.6GW) and 34% (4.5GW) of their respective RE pipelines.

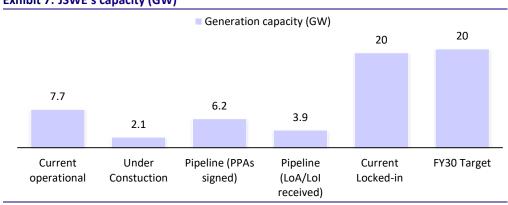
### Exhibit 6: PPA signed as a % of the total RE pipeline



Source: Company, MOFSL



- JSWE is expected to witness strong growth, with its operational capacity of 7.7 GW set to expand to 10 GW by FY25-end, ~11 GW by FY26, and ~14.4 GW by FY27. The potential addition of 1.8 GW from KSK assets upon deal completion further amplifies its growth trajectory, bringing the operational capacity to ~16 GW by the end of FY27.
- With an ambitious target to achieve 20 GW of installed RE capacity by 2030,
  JSWE is well on track to meet—and likely exceed—this goal ahead of schedule.



### Exhibit 7: JSWE's capacity (GW)

## Valuation comparable to peers; execution & PPA visibility higher than peers

- Historically, key investor pushback on JSWE has centered around expensive valuations, with the implied valuation for the RE portfolio at 15x EV/EBITDA (assuming thermal EBITDA is valued at 9-10x EV/EBITDA).
- In our SOTP-based valuation, JSWE's RE portfolio is valued at 15x FY27 EV/EBITDA (FY28 EBITDA discounted by one year). This valuation aligns closely with NTPC Green Energy, which is currently trading at ~16x FY27 EV/EBITDA.
- We acknowledge NTPC Green's superior financing cost advantage (up to 1-1.5% lower borrowing costs) over JSWE. However, we believe JSWE has an edge over NTPC Green in the following areas: 1) As highlighted in this report, JSWE has an established track record in operating wind assets, which we believe will be critical for sustaining mid-teen IRRs on its RE portfolio going forward; 2) Unlike NTPC Green, which outsources EPC and O&M for all RE projects, JSWE handles these internally, leading to significant savings over the asset's life. This, we believe, offsets some of the interest cost advantage that NTPC Green enjoys; 3) Only 4.4 GW (34%) of JSWE's RE pipeline lacks PPA visibility vs 66% for NTPC Green.
- Additionally, the thermal segment has been valued at 10x EV/EBITDA, which is consistent with NTPC's trading multiple.
- The final approval for the KSK Mahanadi acquisition is expected by end-FY25/1QFY26. As such, earnings from this acquisition have not been built into our estimates. Should we include the earnings and consequent debt from this acquisition, it would further enhance our TP by INR60/share.

Source: Company, MOFSL



#### Exhibit 8: KSK Mahanadi EBITDA and estimation

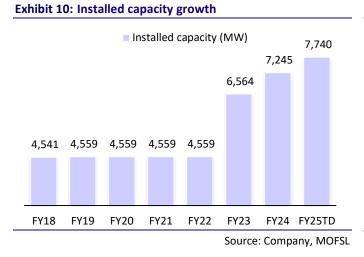
Particulars	Units	Amount
Capacity	MW	1,800
Generation	MU	12,614
EBITDA at INR2/unit	INRm	25,229
EV as per Transaction	INRm	1,59,850
EV/EBITDA	(x)	6.34
KSK Mahanadi EBITDA	INRm	25,229
Multiple - EV/EBITDA	(x)	9
Value	INRm	2,24,789
Net Debt	INRm	1,20,000
Market Cap	INRm	1,04,789
Per share impact	INR/share	60

Source: Company, MOFSL

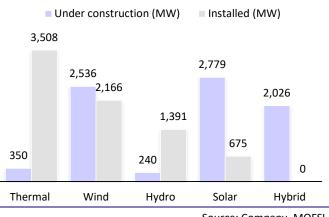
## **Exhibit 9: JSWE SoTP-based valuation**

Particulars	Units	EBITDA - FY27	Valuation multiple	Amount
Thermal	INR m	29,672	10	2,96,719
		,		
Hydro BV - FY27	INR m	60,775	3	1,82,326
RE EBITDA - FY27 (FY28 EBITDA dicounted by 1 yr)	INR m	83,017	15	12,82,609
Green Hydrogen Equity	INR m	1,438	2	3,522
Battery- NPV Basis	INR m			21,191
EV	INR m			17,86,366
Less: Net Debt	INR m			4,10,711
Market cap	INR m			13,75,655
JSW Steel stake*	INR m			48,038
Total Equity value	INR m			14,23,693
Target price	INR/Share			816
CMP	INR/share			642
Upside				27%

\* At 25% discount Source: Company, MOFSL



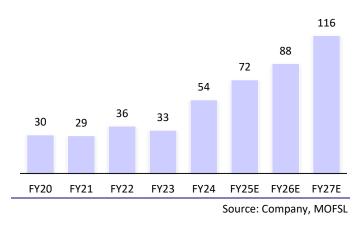
## Exhibit 11: Capacity breakdown at 2QFY25 end



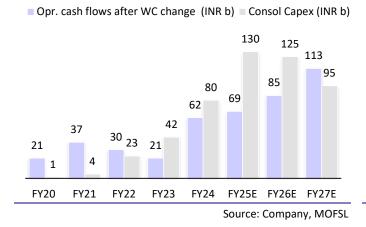
Source: Company, MOFSL



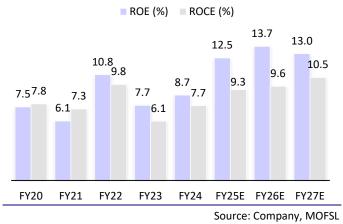
#### Exhibit 12: Consol. EBITDA (INRb)



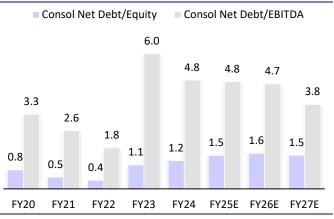
#### Exhibit 14: Capex ramp-up driven by 20GW capacity target



#### Exhibit 13: Consol. ROE and ROCE



#### Exhibit 15: Leverage trending up amid capacity expansion



Source: Company, MOFSL

# **Financials and valuations**

Consolidated Income Statement	FY23	FY24	FY25E	FY26E	(INR m) FY27E
Y/E March Net Sales	1,03,318	1,14,859	1,46,017	1,67,956	2,01,476
Change (%)	26.5	11.2	27.1	15.0	20.0
EBITDA	32,818	53,818	72,044	88,031	1,15,539
% of Net Sales	31.8	46.9	49.3	52.4	57.3
Depreciation	11,692	16,334	16,800	20,152	32,990
EBIT	21,126	37,484	55,244	67,878	82,549
Net Interest	8,443	20,534	25,557	30,057	43,298
Other income	5,352	4,554	7,855	7,855	7,855
PBT before EO	18,036	21,504	37,541	45,676	47,106
EO expense	-1,200	0	0	0	0
PBT after EO	19,236	21,504	37,541	45,676	47,106
Тах	4,627	4,423	9,385	11,419	10,834
Rate (%)	24.1	20.6	25.0	25.0	23.0
JV	193	165	255	255	255
Minority	24	19	850	850	850
Reported PAT	14,778	17,227	27,561	33,662	35,677
Adjusted PAT	13,866	17,227	27,561	33,662	35,677
Change (%)	-19.8	24.2	60.0	22.1	6.0
Consolidated Balance Sheet					(INR m)
Y/E March	FY23	FY24	FY25E	FY26E	FY27E
Share Capital	16,405	16,412	16,412	16,412	16,412
Reserves	1,69,883	1,91,905	2,14,783	2,43,270	2,73,772
Net Worth	1,86,288	2,08,317	2,31,195	2,59,682	2,90,184
Minority Interest	1,054	1,825	2,675	3,525	4,375
Total Loans	2,48,172	3,13,266	3,68,266	4,33,266	4,78,266
Deferred Tax Liability	10,784	13,390	16,018	19,215	21,570
Capital Employed	4,46,298	5,36,798	6,18,154	7,15,688	7,94,395
Gross Block	3,29,615	3,85,207	4,14,810	5,44,813	6,54,816
Less: Accum. Deprn.	85,809	1,02,143	1,18,943	1,39,095	1,72,085
Net Fixed Assets	2,43,807	2,83,064	2,95,866	4,05,717	4,82,731
Capital WIP	47,795	1,02,851	2,03,248	1,98,245	1,83,242
Goodwill	6,485	6,398	6,398	6,398	6,398
Investments	49,616	59,458	59,458	59,458	59,458
investillents	45,010	35,738	55,-58	55,-58	55,450

1,39,714

9,871

16,314

50,850

62,679

41,119

12,741

28,378

98,595

4,46,298

1,30,920

8,307

10,205

52,957

59,452

45,893

13,437

32,456

85,028

5,36,798

1,03,642

9,601

10,001

24,587

59,452

50,458

18,002

32,456

53,183

6,18,154

**Curr. Assets** 

Inventories

Others

Account Receivables

Cash and Bank Balance

Curr. Liability & Prov.

Account Payables

**Net Curr. Assets** 

Appl. of Funds

**Provisions & Others** 

1,25,382

9,936

11,040

44,954

59,452

62,816

30,359

32,456

62,567

7,94,395

1,01,334

10,123

9,203

22,555

59,452

55,464

23,008

32,456

45,870

7,15,688



# **Financials and valuations**

Ratios					
Y/E March	FY23	FY24	FY25E	FY26E	FY27E
Basic (INR)					
EPS	8.5	10.5	15.8	19.3	20.4
Cash EPS	15.6	20.5	25.4	30.8	39.3
BV/Share	113.6	127.0	132.5	148.8	166.3
DPS	2.0	2.0	2.7	3.0	3.0
Payout (%)	23.7	19.0	17.1	15.6	14.7
Dividend yield (%)	0.3	0.3	0.4	0.5	0.5
Valuation (x)					
P/E	76.0	61.1	40.7	33.3	31.4
Cash P/E	41.2	31.4	25.3	20.8	16.3
P/BV	5.7	5.1	4.8	4.3	3.9
EV/EBITDA	38.1	24.4	20.3	17.4	13.5
Dividend Yield (%)	0.3	0.3	0.4	0.5	0.5
FCF (pre-interest) to EV (%)	-1.7	-1.4	-4.2	-2.6	1.1
Return Ratios (%)					
RoE	7.7	8.7	12.5	13.7	13.0
RoCE (post-tax)	6.1	7.7	9.3	9.6	10.5
RoIC (post-tax)	7.0	9.8	13.0	13.5	13.7
Working Capital Ratios					
Fixed Asset Turnover (x)	0.4	0.4	0.5	0.4	0.4
Asset Turnover (x)	0.2	0.2	0.2	0.2	0.3
Debtor (Days)	58	32	25	20	20
Inventory (Days)	35	26	24	22	18
Working Capital Turnover (Days)					
Leverage Ratio (x)					
Net Debt/EBITDA	6.0	4.8	4.8	4.7	3.8
Debt/Equity	1.1	1.2	1.5	1.6	1.5
Consolidated Cash Flow Statement					(INR m)
Y/E March	FY23	FY24	FY25E	FY26E	FY27E
. •					

Y/E March	FY23	FY24	FY25E	FY26E	FY27E
EBITDA	32,818	53,818	72,044	88,031	1,15,539
FX gain/loss	0	0	0	0	0
WC	-11,336	10,085	3,475	5,281	5,703
Others	2,833	2,290	0	0	0
Direct taxes (net)	-3,473	-3,857	-6,757	-8,222	-8,479
CF from Op. Activity	20,843	62,336	68,761	85,090	1,12,762
Capex	-42,363	-80,328	-1,30,000	-1,25,000	-95,000
FCFF	-21,520	-17,991	-61,239	-39,910	17,762
Interest income	2,342	1,894	0	0	0
Others	-30,074	-4,743	7,855	7,855	7,855
CF from Inv. Activity	-70,095	-83,177	-1,22,145	-1,17,145	-87,145
Share capital	24	0	0	0	0
Borrowings	87,278	-1,77,098	55,000	65,000	45,000
Finance cost	-10,758	-23,082	-25,557	-30,057	-43,298
Dividend	-3,288	-3,468	-4,428	-4,920	-4,920
Others	1,581	2,26,596	0	0	0
CF from Fin. Activity	74,838	22,947	25,015	30,023	-3,218
(Inc)/Dec in Cash	25,586	2,106	-28,370	-2,032	22,400
Opening balance	25,265	50,850	52,957	24,587	22,555
Closing balance (as per B/S)	50,850	52,957	24,587	22,555	44,954

Investment in securities market are subject to market risks. Read all the related documents carefully before investing.

Explanation of Investment Rating	
Investment Rating	Expected return (over 12-month)
BUY	>=15%
SELL	< - 10%
NEUTRAL	> - 10 % to 15%
UNDER REVIEW	Rating may undergo a change
NOT RATED	We have forward looking estimates for the stock but we refrain from assigning recommendation

\*In case the recommendation given by the Research Analyst is inconsistent with the investment rating legend for a continuous period of 30 days, the Research Analyst shall within following 30 days take appropriate measures to make the recommendation consistent with the investment rating legend.

#### Disclosures:

The following Disclosures are being made in compliance with the SEBI Research Analyst Regulations 2014 (herein after referred to as the Regulations).

Motilal Oswal Financial Services Ltd. (MOFSL) is a SEBI Registered Research Analyst having registration no. INH000000412. MOFSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing Stock broking services, Depository participant services & distribution of various financial products. MOFSL is a listed public company, the details in respect of which are available on <u>www.motilaloswal.com</u>, MOFSL (erstwhile Motilal Oswal Securities Limited - MOSL) is registered with the Securities & Exchange Board of India (SEBI) and is a registered Trading Member with National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange Limited (BSE), Multi Commodity Exchange of India Limited (MCX) and National Commodity & Derivatives Exchange Limited (NCDEX) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) National Securities Depository Limited (NSDL),NERL, COMRIS and CCRL and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products and Insurance Regulatory & Development Authority of India (IRDA) as Corporate Agent for insurance products. Details of associate entities of Motilal Oswal Financial Services Ltd. are available on the website at <a href="http://onlinereports.motilaloswal.com/Dormant/documents/Associate%20Details.pdf">http://onlinereports.motilaloswal.com/Dormant/documents/Associate%20Details.pdf</a>

Details of pending Enquiry Proceedings of Motilal Oswal Financial Services Limited are available on the website at <a href="https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx">https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx</a>

MOFSL, it's associates, Research Analyst or their relatives may have any financial interest in the subject company. MOFSL and/or its associates and/or Research Analyst or their relatives may have actual beneficial ownership of 1% or more securities in the subject company at the end of the month immediately preceding the date of publication of the Research Report or date of the public appearance. MOFSL and its associate company(ies), their directors and Research Analyst and their relatives may have any other potential conflict of interests at the time of publication of the research report or at the time of public appearance, however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.

In the past 12 months, MOFSL or any of its associates may have:

- a) received any compensation/other benefits from the subject company of this report
- b) managed or co-managed public offering of securities from subject company of this research report,
- c) received compensation for investment banking or merchant banking or brokerage services from subject company of this research report,
- d) received compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company of this research report.
- MOFSL and it's associates have not received any compensation or other benefits from the subject company or third party in connection with the research report.
- Subject Company may have been a client of MOFSL or its associates during twelve months preceding the date of distribution of the research report.
- Research Analyst may have served as director/officer/employee in the subject company.
- MOFSL and research analyst may engage in market making activity for the subject company.

MOFSL and its associate company(ies), and Research Analyst and their relatives from time to time may have:

a) a long or short position in, act as principal in, and buy or sell the securities or derivatives thereof of companies mentioned herein.

(b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies) or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.

Above disclosures include beneficial holdings lying in demat account of MOFSL which are opened for proprietary investments only. While calculating beneficial holdings, It does not consider demat accounts which are opened in name of MOFSL for other purposes (i.e. holding client securities, collaterals, error trades etc.). MOFSL also earns DP income from clients which are not considered in above disclosures. To enhance transparency, MOFSL has incorporated a Disclosure of Interest Statement in this document. This should, however, not be treated as endorsement of the views expressed in the report. MOFSL and / or its affiliates do and seek to do business including investment banking with companies covered in its research reports. As a result, the recipients of this report should be aware that MOFSL may have a potential conflict of interest that may affect the objectivity of this report.

#### Terms & Conditions:

This report has been prepared by MOFSL and is meant for sole use by the recipient and not for circulation. The report and information contained herein is strictly confidential and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of MOFSL. The report is based on the facts, figures and information that are considered true, correct, reliable and accurate. The intent of this report is not recommendatory in nature. The information is obtained from publicly available media or other sources believed to be reliable. Such information has not been independently verified and no guaranty, representation of warranty, express or implied, is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. The report is prepared solely for informational purpose and does not constitute an offer document or solicitation of offer to buy or sell or usubscribe for securities or other financial instruments for the clients. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. MOFSL will not treat recipients as customers by virtue of their receiving this report.

#### Analyst Certification

The views expressed in this research report accurately reflect the personal views of the analyst(s) about the subject securities or issues, and no part of the compensation of the research analyst(s) was, is, or will be directly or indirectly related to the specific recommendations and views expressed by research analyst(s) in this report.

Disclosure of Interest Statement	JSW Energy					
Analyst ownership of the stock	No					
	 	_	 0.11.1.0			

A graph of daily closing prices of securities is available at <u>www.nseindia.com</u>, <u>www.bseindia.com</u>. Research Analyst views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of MOFSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOFSL research activity and therefore it can have an independent view with regards to subject company for which Research Team have expressed their views.

#### **Regional Disclosures (outside India)**

This report is not directed or intended for distribution to or use by any person or entity resident in a state, country or any jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL & its group companies to registration or licensing requirements within such jurisdictions.

#### For Hong Kong:

This report is distributed in Hong Kong by Motilal Oswal capital Markets (Hong Kong) Private Limited, a licensed corporation (CE AYY-301) licensed and regulated by the Hong Kong Securities and Futures Commission (SFC) pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) "SFO". As per SEBI (Research Analyst Regulations) 2014 Motilal Oswal Financial Services Limited (SEBI Reg No. INH000000412) has an agreement with Motilal Oswal capital Markets (Hong Kong) Private Limited for distribution only to "Professional Investors" as defined in Part I of Schedule 1 to SFO. Any investment activity to which this document relates is only available to professional investor and will be engaged only with professional investors". Nothing here is an offer or solicitation of these securities, products and services in any jurisdiction where their offer or sale is not qualified or exempt from registration. The Indian Analyst(s) who compile this report is/are not located in Hong Kong & are not conducting Research Analysis in Hong Kong.

#### For U.S.

MOTILAL Oswal Financial Services Limited (MOFSL) is not a registered broker - dealer under the U.S. Securities Exchange Act of 1934, as amended (the "1934 act") and under applicable state laws in the United States. In addition MOFSL is not a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended (the "Advisers Act" and together with the 1934 Act, the "Acts), and under applicable state laws in the United States. Accordingly, in the absence of specific exemption under the Acts, any brokerage and investment services provided by MOFSL, including the products and services described herein are not available to or intended for U.S. persons. This report is intended for distribution only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the Exchange Act



and interpretations thereof by SEC (henceforth referred to as "major institutional investors"). This document must not be acted on or relied on by persons who are not major institutional investors. Any investment or investment activity to which this document relates is only available to major institutional investors and will be engaged in only with major institutional investors. In reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") and interpretations thereof by the U.S. Securities and Exchange Commission ("SEC") in order to conduct business with Institutional Investors based in the U.S., MOFSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited. ("MOSIPL"). Any business interaction pursuant to this report will have to be executed within the provisions of this chaperoning agreement.

The Research Analysts contributing to the report may not be registered /qualified as research analyst with FINRA. Such research analyst may not be associated persons of the U.S. registered broker-dealer, MOSIPL, and therefore, may not be subject to NASD rule 2711 and NYSE Rule 472 restrictions on communication with a subject company, public appearances and trading securities held by a research analyst account.

#### For Singapore

In Singapore, this report is being distributed by Motilal Oswal Capital Markets Singapore Pte Ltd ("MOCMSPL") (Co. Reg. NO. 201129401Z) which is a holder of a capital markets services license and an exempt financial adviser in Singapore. Persons in Singapore should contact MOCMSPL in respect of any matter arising from, or in connection with this report/publication/communication. This report is distributed solely to persons who qualify as "Institutional Investors", of which some of whom may consist of "accredited" institutional investors as defined in section 4A(1) of the Securities and Futures Act of Singapore .Accordingly, if a Singapore person is not, or ceases to be, such an investor, they must immediately discontinue any use of this Report and inform MOCMSPL.

#### Disclaimer:

The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent. This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions -including those involving futures, options, another derivative products as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. No representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document. The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alternations to this statement as may be required from time to time without any prior approval. MOFSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOFSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the firm, not its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOFSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOFSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOFSL or any of its affiliates or employees free and harmless from all losses, costs, damages, expenses that may be suffered by the person accessing this information due to any errors and delays

#### This report is meant for the clients of Motilal Oswal only.

Investment in securities market are subject to market risks. Read all the related documents carefully before investing.

Registration granted by SEBI and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022 - 71934200 / 71934263; www.motilaloswal.com. Correspondence Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad (West), Mumbai- 400 064. Tel No: 022 71881000. Details of Compliance Officer: Neeraj Agarwal, Email Id: na@motilaloswal.com, Contact No:022-40548085.

#### Grievance Redressal Cell:

Contact Person	Contact No.	Email ID
Ms. Hemangi Date	022 40548000 / 022 67490600	query@motilaloswal.com
Ms. Kumud Upadhyay	022 40548082	servicehead@motilaloswal.com
Mr. Ajay Menon	022 40548083	am@motilaloswal.com

Registration details of group entities.: Motilal Oswal Financial Services Ltd. (MOFSL): INZ000158836 (BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412 . AMFI: ARN .: 146822. IRDA Corporate Agent – CA0579. Motilal Oswal Financial Services Ltd. is a distributor of Mutual Funds, PMS, Fixed Deposit, Insurance, Bond, NCDs and IPO products.

Customer having any query/feedback/ clarification may write to query@motilaloswal.com. In case of grievances for any of the services rendered by Motilal Oswal Financial Services Limited (MOFSL) write to grievances@motilaloswal.com, for DP to dpgrievances@motilaloswal.com.