

# ACME Solar Holdings

**BSE SENSEX** 80,335  
**S&P CNX** 24,274



## Stock Info

Bloomberg	ACMESOLA IN
Equity Shares (m)	605
M.Cap.(INRb)/(USDb)	130.2 / 1.5
52-Week Range (INR)	292 / 168
1, 6, 12 Rel. Per (%)	3/-/-
12M Avg Val (INR M)	448
Free float (%)	16.6

## Financials Snapshot (INR b)

Y/E March	FY25E	FY26E	FY27E
Sales	13.8	23.8	43.0
EBITDA	12.0	20.7	38.1
Adj. PAT	2.0	3.5	6.3
EPS (INR)	3.3	5.7	10.4
EPS Gr. (%)	38.6	75.2	82.2
BV/Sh.(INR)	75.3	81.0	91.5

## Ratios

ND/Equity	1.8	4.6	7.6
ND/EBITDA	6.7	10.9	11.1
RoE (%)	5.5	7.3	12.1
RoIC (%)	5.6	5.5	5.2

## Valuations

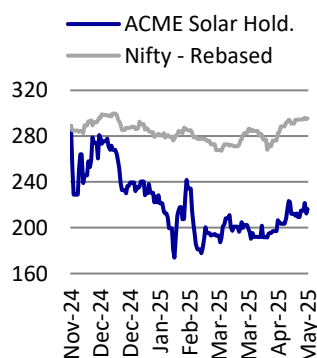
P/E (x)	65.7	37.5	20.6
EV/EBITDA (x)	17.2	16.9	14.4

## Shareholding pattern (%)

As On	Mar-25	Dec-24
Promoter	83.4	83.4
DII	7.1	7.0
FII	4.7	5.5
Others	4.8	4.1

FII Includes depository receipts

## Stock performance (one-year)



**CMP: INR215**

**TP: INR290 (+35%)**

**Buy**

## Lower battery costs creating potential for IRR boost

- **Decline in project costs creating potential for 4-5% equity IRR boost:** A combination of lower battery/module prices and developers' willingness to tweak original configurations of firm and dispatch able renewable energy (FDRE) projects is creating the potential for ACME Solar (and other independent power producers or IPPs) to boost equity IRRs on FDRE projects. We estimate that a decline in battery/module prices by ~20-25% during CY23-25 could lead to ~15% capex savings on select FDRE projects for ACME, boosting equity IRR by ~4-5%.
- **ACME most exposed to FDRE among peers with 2.6GW FDRE pipeline:** Note that ACME has 53% FDRE projects (2.35GW) in its under-construction pipeline, for which letters of award (LoAs) were secured in CY23-24. These projects should benefit from cost deflation in battery/module prices. Overall, ACME stands out as the most exposed to FDRE projects among its peers, with 2.6GW (59% of its RE pipeline) under development, positioning it to benefit significantly from falling battery prices.
- **IRR uplift from change in project configuration but challenges abound:** Further, developers are also experimenting with changes in project configurations so as to take advantage of lower capex solar/storage. This can further boost IRR. However, as per our channel checks, this entails significant operational challenges (e.g., compliance with stringent capacity utilization factor (CUF) norms—minimum declared CUF of 40% and generation to be maintained within +10%/-15% of the declared value over the 25-year term of power purchase agreements), and the actual implementation will have to be watched out.
- **Strong earnings outlook in coming quarters:** We expect ACME to report a 29% QoQ increase in EBITDA in 4QFY25 and expect 1QFY26 to gain from the commissioning of 350MW of new capacity. With 53% of its pipeline PPA-backed and 100%/83% PPA coverage for FY26E/FY27E EBITDA, ACME offers strong earnings visibility. **We maintain a BUY rating on ACME with a TP of INR290/share.**

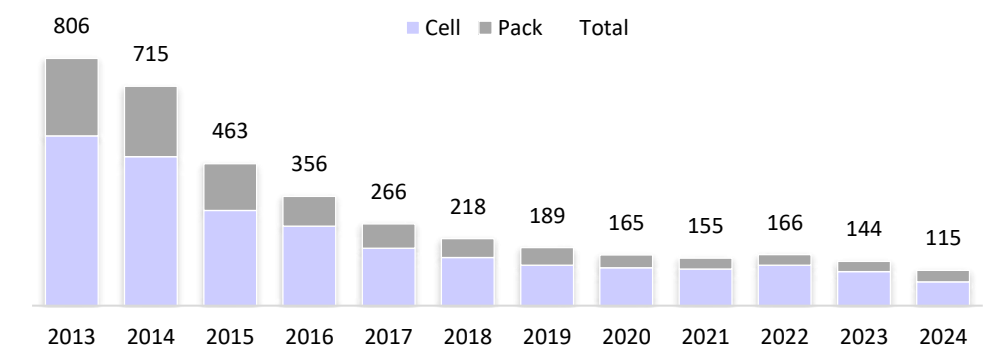
### ~25% decline in battery prices in CY23-25 re-shaping project economics

- The continued decline in battery prices has significantly enhanced the viability and competitiveness of battery energy storage system (BESS) projects. In CY23, average lithium-ion battery pack prices fell by 13% YoY to USD144/kWh, primarily driven by a reduction in raw material and component costs. This trend gained further momentum in CY24, with prices declining by another 20% YoY to USD 115/kWh—the steepest annual fall observed since CY17.
- Falling battery prices (down from over USD200/kWh in CY18 to ~USD115/kWh in CY24 to ~USD100/kWh now) are 1) leading to savings in capex, thus boosting project IRR; 2) giving developers the option to tweak predetermined combinations of solar/wind/storage so as to maximize returns.

### Improved battery economics aid right-sizing wind minimizing penalty risk

- In FDRE projects, developers face performance-linked penalties, typically 1.5x the PPA tariff, for non-compliance with the demand fulfilment ratio (DFR). Meeting DFR targets is especially challenging due to the variability of wind energy generation, unlike solar, which offers greater predictability.
- Wind capacity also exposes developers to penalty risk for under-generation and merchant risk for over-generation. Developers are exploring oversizing solar and battery storage, as solar + tracker systems are achieving plant load factors (PLFs) comparable to or marginally below the wind capacity. Additionally, land and RoW constraints make wind projects more prone to delays than solar.

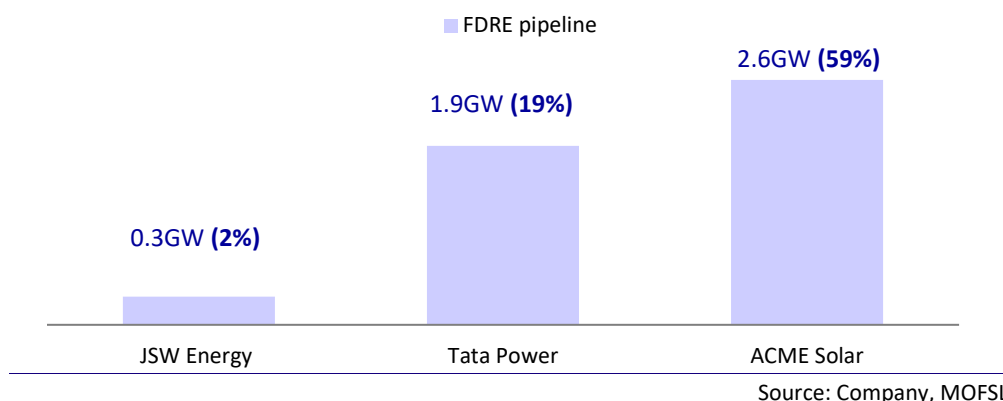
**Exhibit 1: Volume-weighted average lithium-ion battery pack and cell price split (USD/kWh) during CY13-24**



Source: Bloomberg, MOFSL

### We estimate ~4-5% rise in FDRE equity IRR for ACME's projects

- For a 250MW FDRE project—comprising 350MW (AC) of solar, 90 MW of wind, and 700 MWh of battery storage— for which we assume LoA in CY23, we estimate battery costs have declined by ~25% and the capital cost associated with solar modules has also reduced meaningfully, driven by a decline in module prices. We estimate that together, this decline in battery/module costs should lead to 15% savings in project capex. We estimate a potential equity IRR improvement of ~400-500bp, assuming other variables remain constant.
- LoAs for ~2.4GW of FDRE projects were issued in FY24-25 at tariffs ranging from INR3.42 to INR4.73/kWh and given the cost deflation since then, we expect an equity IRR boost across these projects, thereby reinforcing the attractiveness of ACME's 2.6GW FDRE pipeline.

**Exhibit 2: FDRE pipeline as a percentage of total pipeline**

**Exhibit 3: ACME's under construction FDRE pipeline of 2.6GW**

Project Name	Contracted Capacity (MW)	Off-taker	Tariff (INR/kWh)	Status	LoA Month
ACME Surya Power Private Limited	250	SJVN	4.38	PPA signed	Nov'23
ACME Sun Power Private Limited	320	SJVN	4.38	PPA signed	Dec'23
ACME Urja One Private Limited	380	SECI	4.73	PPA signed for 190MW	Apr'23
ACME Platinum Urja Private Limited	350	SECI	3.42	PPA signed for 150MW	July'24
ACME Venus Urja Private Limited	400	NHPC	4.64	PPA signed	Mar'24
ACME Hybrid Urja Private Limited	280	NHPC	4.64	PPA signed	Mar'24
ACME Marigold Urja Private Limited	400	NTPC	4.7	LoA awarded	Dec'24
SPV 3	250	NHPC	4.56	LoA awaited	-

Source: Company, MOFSL

### Upsizing solar/storage to drive up IRR, but beset with challenges

- A decline in battery prices is enabling developers to re-evaluate whether wind capacity can be right-sized and solar/storage capacity can be upsized without compromising the energy output. We estimate that tweaking project configuration by lowering capex costs can increase equity IRR as the optimized project combination can lower overall project capex without compromising the total energy output.
- However, in reality, this is beset with challenges due to the existence of regulatory constraints mandating developers to
  - Projects that require maintaining an annual CUF of not less than 40%; and
  - Maintaining actual generation within a range of +10% to -15% of the declared CUF over the 25-year tenure of the PPA.

### INR25b refinancing at 8.8% to cut interest costs

- On 3rd Apr'25, ACME announced the successful closure of a long-term project finance facility (extended by SBI and REC) of INR24.91b for a tenure of 18-20 years. This refinancing facility is aimed at replacing existing high-cost debt tied to its 490MW operational RE portfolio across Andhra Pradesh (160MW), Rajasthan (300MW), and Punjab (30MW) at a reduced weighted average interest rate of 8.8%.
- Structured under a co-obligor framework, the refinancing has improved credit ratings for the Andhra Pradesh and Punjab entities, backed by a strong operational track record (~9 years for AP & Punjab, ~3 years for Rajasthan).

### Earnings momentum picking up over next few quarters

- We expect 4QFY25 EBITDA to jump 29% QoQ, driven by the full contribution from the 1,200MW of newly commissioned solar capacity. 1QFY26 will witness earnings contributions from the commissioning of an additional 350MW of capacity in 4QFY25. This includes a 300MW solar project and a 50MW wind project.
- The company is set to operationalize ~0.35GW/0.1GW/2.3GW projects in 4QFY25/FY26/FY27 (9MFY25-end operational: 2.5GW). We are modelling a stable EBITDA margin of 87%-89% over FY26-27E, in line with peers.

### FY27 EBITDA visibility high; largely backed by PPA

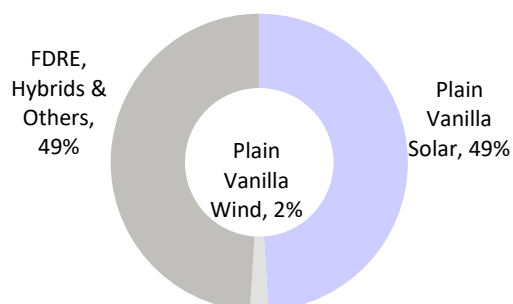
- Overall ACME has 53% of its project pipeline backed by PPAs. Its 100%/83% of FY26/FY27 upcoming capacities are also backed by PPAs.
- Of the total under-construction projects, amounting to 4.43GW until FY29, the company has already signed PPAs for projects totaling 2.3GW. This implies that the entire FY26 revenue/EBITDA are 'in the bag' (i.e., backed by PPAs). With PPAs signed for 83% of the capacity coming up in FY27, a significant portion of the FY27 revenue/EBITDA is also 'in the bag'.
- Additionally, LoAs have been granted for the other 1.8GW projects. A few of these projects could be converted into PPAs over 1HFY26 in our opinion, thus enhancing the visibility of FY27 earnings further. Additionally, ACME has grid connectivity in place for all its under-construction projects, with an additional ~2GW of connectivity (both applied and secured) available for future bids. This alleviates any concerns regarding grid availability.

### Valuation and view

- In the last one month, ACME has outperformed NTPC Green, with ACME stock price up 14% compared to a 3% rise in NTPC Green's share price.
- **We maintain a BUY rating on ACME with a TP of INR290/share.** We assign an EV/EBITDA multiple of 11x to FY28E EBITDA. Adjusting for net debt, we derive our TP of INR290, implying 35% potential upside.

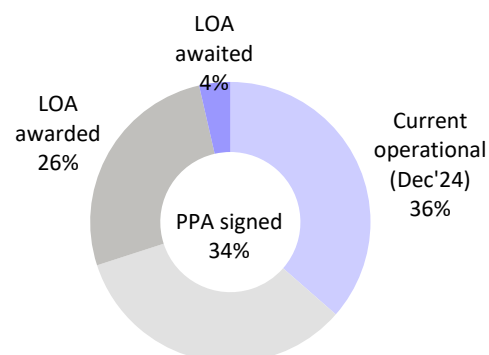
## Story in charts

**Exhibit 4: Breakup of total project portfolio 6,970MW**



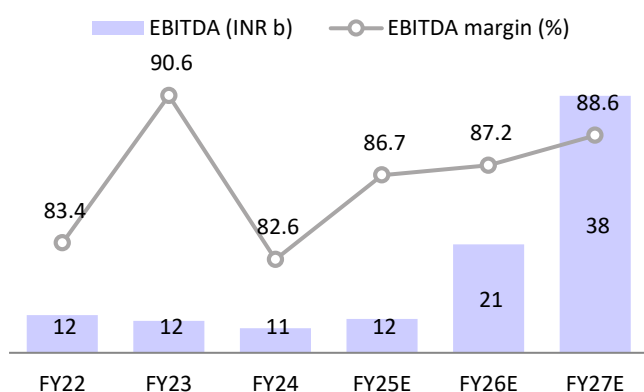
Source: Company, MOFSL

**Exhibit 5: PPA & LoA status of total project portfolio– 6,970MW**



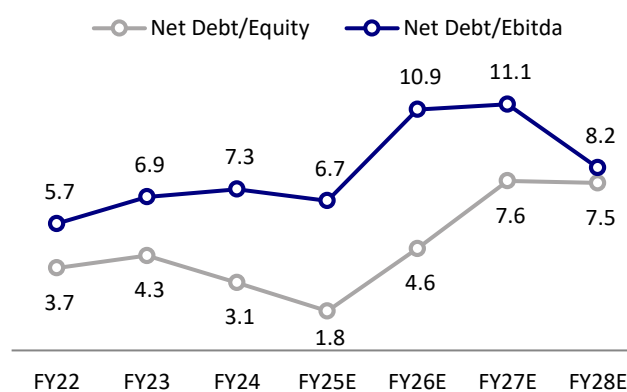
Source: Company, MOFSL

**Exhibit 6: EBITDA and EBITDA margin trends**



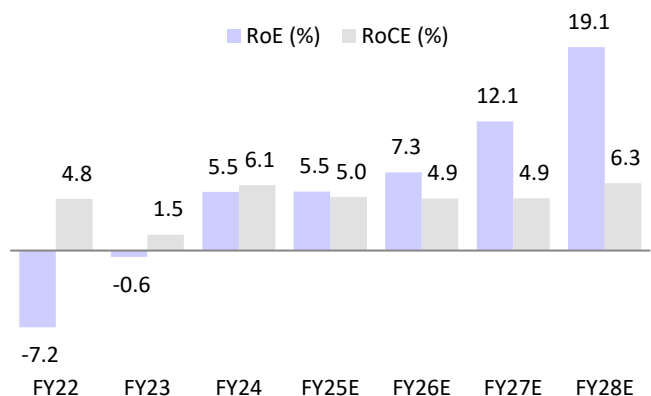
Source: Company, MOFSL

**Exhibit 7: ND/Equity & ND/EBITDA trends**



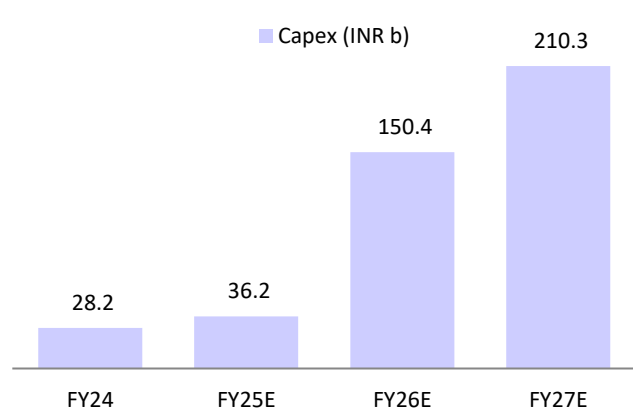
Source: Company, MOFSL

**Exhibit 8: RoE and RoCE trends**



Source: Company, MOFSL

**Exhibit 9: Capex trend (INRb)**



Source: Company, MOFSL

## Financials and valuations

Consolidated - Income Statement						(INR m)
Y/E March	FY22	FY23	FY24	FY25E	FY26E	FY27E
Total Income from Operations	14,879	12,949	13,193	13,808	23,777	43,007
Change (%)		-13%	2%	5%	72%	81%
EBITDA	12,403	11,726	10,891	11,968	20,722	38,110
Change (%)		-5%	-7%	10%	73%	84%
Margin (%)	83.4	90.6	82.6	86.7	87.2	88.6
Depreciation	5,463	4,848	3,081	3,117	4,455	8,813
EBIT	6,940	6,878	7,810	8,851	16,267	29,296
Net forex loss	0	0	0	0	0	0
Int. and Finance Charges	9,960	8,091	7,673	7,431	11,276	19,961
Other Income	748	665	1,470	1,627	347	390
PBT bef. EO Exp.	-2,271	-548	1,607	3,046	5,338	9,725
EO Items	3,296	394	7,487	0	0	0
PBT after EO Exp.	1,024	-154	9,094	3,046	5,338	9,725
Total Tax	404	-122	2,116	1,066	1,868	3,404
Tax Rate (%)	39.5	79.4	23.3	35.0	35.0	35.0
Minority Interest/Share of JVs/associates						
Reported PAT	620	-32	6,978	1,980	3,470	6,321
Adjusted PAT	-1,375	-113	1,233	1,980	3,470	6,321
Change (%)		Loss	LP	61%	75%	82%
Margin (%)		-0.9	9.3	14.3	14.6	14.7

Consolidated - Balance Sheet						(INR m)
Y/E March	FY22	FY23	FY24	FY25E	FY26E	FY27E
Equity Share Capital	1,044	1,044	1,044	1,210	1,210	1,210
Total Reserves	18,043	17,961	24,864	44,344	47,814	54,135
Net Worth	19,088	19,006	25,909	45,554	49,024	55,345
Minority Interest	1,004	299	0	0	0	0
Loans	69,509	80,993	76,964	89,091	2,27,384	4,23,890
Deferred Tax Liabilities	901	1,600	2,120	2,120	2,120	2,120
Other non-current liabilities	2,682	6,589	10,702	10,702	10,702	10,702
Lease liabilities, Provisions, etc.	3,222	3,687	3,982	3,982	3,982	3,982
Non-current liabilities	76,315	92,869	93,768	1,05,895	2,44,188	4,40,694
Capital Employed	96,406	1,12,173	1,19,677	1,51,450	2,93,213	4,96,040
Gross Block	84,614	94,054	90,355	1,33,479	2,87,599	4,97,980
Less: Accum. Deprn.	22,843	27,744	22,775	25,893	30,348	39,161
Net Fixed Assets	61,771	66,309	67,579	1,07,587	2,57,251	4,58,819
Capital WIP	12,728	21,473	28,284	21,328	17,600	17,560
Investments & other financial assets	1,469	1,845	549	549	549	549
Non-current tax assets (net)	413	898	316	316	316	316
Deferred tax assets (net)	1,598	2,476	1,929	1,929	1,929	1,929
Other non-current assets	7,490	1,847	2,620	2,620	2,620	2,620
Non-current assets	85,468	94,848	1,01,277	1,34,329	2,80,264	4,81,792
Curr. Assets, Loans&Adv.	23,399	27,021	32,721	31,442	27,269	28,568
Account Receivables	9,314	6,993	4,209	2,521	4,185	6,709
Cash and Bank Balance	7,631	13,385	13,149	13,557	7,720	6,496
Loans and Advances	1,623	3,439	1,168	1,168	1,168	1,168
Investments	0	0	1,499	1,499	1,499	1,499
Other Current Asset	4,831	3,204	12,697	12,697	12,697	12,697
Curr. Liability & Prov.	12,461	9,696	14,321	14,321	14,321	14,321
Account Payables	2,730	621	738	738	738	738
Loans	6,127	5,581	5,212	5,212	5,212	5,212
Provisions	2	5	5	5	5	5
Other Current Liability	3,601	3,489	8,367	8,367	8,367	8,367
Net Current Assets	10,938	17,325	18,400	17,121	12,948	14,248
Appl. of Funds	96,406	1,12,174	1,19,677	1,51,450	2,93,213	4,96,040

## Financials and valuations

### Ratios

Y/E March (INR)	FY22	FY23	FY24	FY25E	FY26E	FY27E
<b>Basic (INR)</b>						
<b>EPS</b>	<b>-2.6</b>	<b>-0.2</b>	<b>2.4</b>	<b>3.3</b>	<b>5.7</b>	<b>10.4</b>
Cash EPS	7.8	9.1	8.3	8.4	13.1	25.0
BV/Share	36.6	36.4	49.6	75.3	81.0	91.5
<b>Valuation (x)</b>						
P/E	-81.7	NA	91.1	65.7	37.5	20.6
Cash P/E	27.5	23.7	26.0	25.5	16.4	8.6
P/BV	5.9	5.9	4.3	2.9	2.7	2.4
EV/Sales	11.9	14.5	14.1	14.9	14.7	12.7
EV/EBITDA	14.3	16.0	17.1	17.2	16.9	14.4
FCF per share	-58.7	9.5	-26.6	-48.6	-238.2	-326.8
<b>Return Ratios (%)</b>						
RoE	-7.2	-0.6	5.5	5.5	7.3	12.1
RoCE	4.8	1.5	6.1	5.0	4.9	4.9
RoIC	5.4	1.8	7.0	5.6	5.5	5.2
<b>Working Capital Ratios</b>						
Fixed Asset Turnover (x)	0.2	0.1	0.1	0.1	0.1	0.1
Asset Turnover (x)	0.2	0.1	0.1	0.1	0.1	0.1
Debtor (Days)	228	197	116	67	64	57
Creditor (Days)	67	18	20	19	11	6
<b>Leverage Ratio (x)</b>						
Current Ratio	1.9	2.8	2.3	2.2	1.9	2.0
Interest Cover Ratio	0.7	0.9	1.0	1.2	1.4	1.5
Net Debt/Equity	3.7	4.3	3.1	<b>1.8</b>	<b>4.6</b>	<b>7.6</b>
Net Debt/EBITDA	5.7	6.9	7.3	6.7	10.9	11.1

### Consolidated - Cash Flow Statement

(INR m)

Y/E March	FY22	FY23	FY24	FY25E	FY26E	FY27E
OP/(Loss) before Tax	1,024	-154	9,094	3,046	5,338	9,725
Depreciation	5,463	4,848	3,081	3,117	4,455	8,813
Direct Taxes Paid	-256	-547	-112	-1,066	-1,868	-3,404
(Inc)/Dec in WC	3,318	8,488	2,278	1,687	-1,664	-2,524
<b>CF from Operations</b>	<b>9,550</b>	<b>12,635</b>	<b>14,342</b>	<b>6,785</b>	<b>6,261</b>	<b>12,611</b>
(Inc)/Dec in FA	-40,186	-7,688	-28,241	-36,169	-1,50,391	-2,10,341
<b>Free Cash Flow</b>	<b>-30,637</b>	<b>4,947</b>	<b>-13,899</b>	<b>-29,384</b>	<b>-1,44,130</b>	<b>-1,97,731</b>
(Pur)/Sale of Investments	36,446	-6,411	10,934	0	0	0
<b>CF from Investments</b>	<b>-3,741</b>	<b>-14,099</b>	<b>-17,307</b>	<b>-36,169</b>	<b>-1,50,391</b>	<b>-2,10,341</b>
Inc/(Dec) in Debt	3,698	9,832	9,913	12,127	1,38,293	1,96,506
Issuance of Equity	0	0	0	24,166	0	0
Others	-9,256	-7,678	-7,755	-6,500	0	0
<b>CF from Fin. Activity</b>	<b>-5,558</b>	<b>2,154</b>	<b>2,158</b>	<b>29,792</b>	<b>1,38,293</b>	<b>1,96,506</b>
<b>Inc/Dec of Cash</b>	<b>251</b>	<b>690</b>	<b>-807</b>	<b>408</b>	<b>-5,837</b>	<b>-1,225</b>
Opening Balance		4,785	5,474	13,149	13,557	7,720
<b>Closing Balance</b>		<b>5,474</b>	<b>4,667</b>	<b>13,557</b>	<b>7,720</b>	<b>6,496</b>

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

## NOTES



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 be 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 [www.motilaloswal.com](http://www.motilaloswal.com). 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 Limited are available on the website at <http://online.reports.motilaloswal.com/Dormant/documents/List%20of%20Associate%20companies.pdf>

MOFSL and its associate company(ies), their directors and Research Analyst and their relatives may; (a) from time to time, have 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.

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. Compensation of Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions. Details of pending Enquiry Proceedings of Motilal Oswal Financial Services Limited are available on the website at <https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx>

A graph of daily closing prices of securities is available at [www.nseindia.com](http://www.nseindia.com), [www.bseindia.com](http://www.bseindia.com). 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 Securities (SEBI Reg. No. INH000000412) has an agreement with Motilal Oswal capital Markets (Hong Kong) Private Limited for distribution of research report in Hong Kong. This report is intended for distribution only to "Professional Investors" as defined in Part I of Schedule 1 to SFO. Any investment or 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") (UEN 201129401Z), which is a holder of a capital markets services license and an exempt financial adviser in Singapore. This report is distributed solely to persons who (a) qualify as "institutional investors" as defined in section 4A(1)(c) of the Securities and Futures Act of Singapore ("SFA") or (b) are considered "accredited investors" as defined in section 2(1) of the Financial Advisers Regulations of Singapore read with section 4A(1)(a) of the SFA. Accordingly, if a recipient is neither an "institutional investor" nor an "accredited investor", they must immediately discontinue any use of this Report and inform MOCMSPL.

In respect of any matter arising from or in connection with the research you could contact the following representatives of MOCMSPL. In case of grievances for any of the services rendered by MOCMSPL write to [grievances@motilaloswal.com](mailto:grievances@motilaloswal.com).

Nainesh Rajani

Email: [nainesh.raiani@motilaloswal.com](mailto:nainesh.raiani@motilaloswal.com)

Contact: (+65) 8328 0276

#### Specific Disclosures

- Research Analyst and/or his/her relatives do not have a financial interest in the subject company(ies), as they do not have equity holdings in the subject company(ies).  
MOFSL has financial interest in the subject company(ies) at the end of the week immediately preceding the date of publication of the Research Report: Yes.  
Nature of Financial interest is holding equity shares or derivatives of the subject company
- Research Analyst and/or his/her relatives do not have actual/beneficial ownership of 1% or more securities in the subject company(ies) at the end of the month immediately preceding the date of publication of Research Report.  
MOFSL has actual/beneficial ownership of 1% or more securities of the subject company(ies) at the end of the month immediately preceding the date of publication of Research Report: No
- Research Analyst and/or his/her relatives have not received compensation/other benefits from the subject company(ies) in the past 12 months.  
MOFSL may have received compensation from the subject company(ies) in the past 12 months.
- Research Analyst and/or his/her relatives do not have material conflict of interest in the subject company at the time of publication of research report.  
MOFSL does not have material conflict of interest in the subject company at the time of publication of research report.
- Research Analyst has not served as an officer, director or employee of subject company(ies).
- MOFSL has not acted as a manager or co-manager of public offering of securities of the subject company in past 12 months.

7. MOFSL has not received compensation for investment banking /merchant banking/brokerage services from the subject company(ies) in the past 12 months.
8. MOFSL may have received any compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company(ies) in the past 12 months.
9. MOFSL may have received compensation or other benefits from the subject company(ies) or third party in connection with the research report.
10. MOFSL has not engaged in market making activity for the subject company.

The associates of MOFSL may have:

- financial interest in the subject company
- 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.
- received compensation/other benefits from the subject company in the past 12 months
- 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.
- acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- 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)
- received compensation from the subject company in the past 12 months for investment banking / merchant banking / brokerage services or from other than said services.
- Served subject company as its clients during twelve months preceding the date of distribution of the research report.

The associates of MOFSL has not received any compensation or other benefits from third party in connection with 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.

#### 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.

#### 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 subscribe 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.

#### 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, nor 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.