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REF:TEIL:SE:

BSE Limited P.J. Tower, Dalal Street, Fort, MUMBAI - 400 001 Thru: BSE Listing Centre	National Stock Exchange of India Ltd., Exchange Plaza, Bandra-Kurla Complex, Bandra (E), MUMBAI - 400 051 Thru: NEAPS
<b>STOCK CODE: 532356</b>	<b>STOCK CODE: TRIVENI</b>
<b>Sub: Investors' Presentation for Q4 &amp; FY 2023 ended on March 31, 2023</b>	

Dear Sirs,

We send herewith a copy of investors' Presentation on the performance of the Company for the Q4 & FY2023 (consolidated) ended on March 31, 2023 for your information. The same is also being made available on the Company's website [www.trivenigroup.com](http://www.trivenigroup.com).

Thanking you,

Yours faithfully,  
**For Triveni Engineering & Industries Ltd.**



**GETA BHALLA**  
Group Vice President &  
Company Secretary  
M.No.A9475

Encl: As above

# *Investor Presentation Q4 & FY 23*

*May 2023*





# AGENDA



**COMPANY  
OVERVIEW**



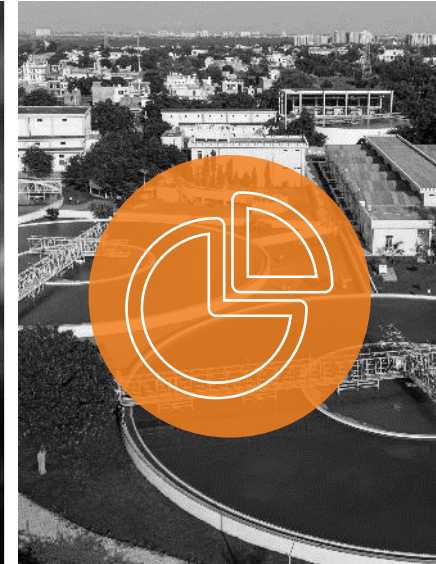
**OUR 5-YEAR  
JOURNEY**



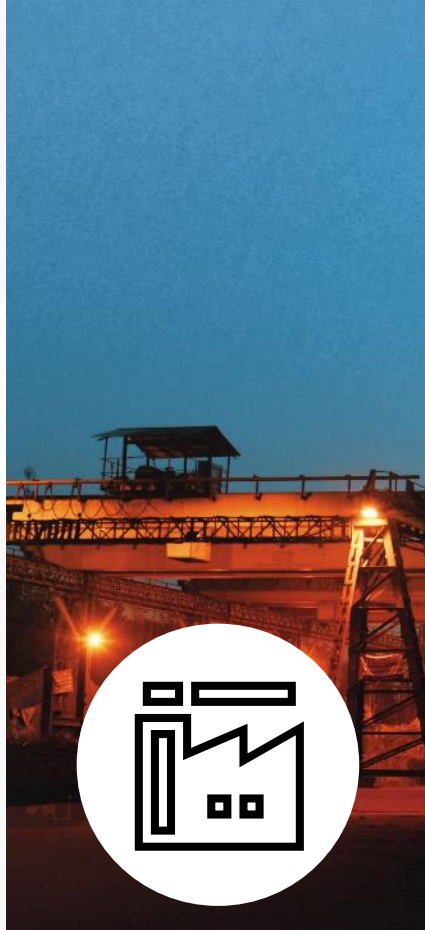
**FINANCIAL  
RESULTS  
Q4/FY 23**



**BUSINESS-WISE  
UPDATE**



**SHAREHOLDING  
PATTERN**



**COMPANY  
OVERVIEW**



**OUR 5-YEAR  
JOURNEY**



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PATTERN**

# COMPANY OVERVIEW



Integrated and diversified conglomerate in areas of sugar, ethanol and engineering



Located strategically in sugarcane-rich western and central belt of Uttar Pradesh



Among the Top 3 manufacturers in India for sugar & second highest supplier for ethanol\*



Dominant market player in the engineered-to-order turbo gearbox industry



Efficient, sustainable and complete water/wastewater treatment solutions provider, across the water cycle



# BUSINESS OVERVIEW



## SUGAR

- 7 FSSC 22000 certified sugar plants in U.P., India
- ~330K+ farmer associates
- >2,04,000 Hectare area under Sugarcane
- Multi-grade - Large, Medium and Small White Crystal Sugar, Refined Sugar, Raw Sugar (for export based on market dynamics)
- Pharmaceutical-grade Sugar
- Refined sugar 60% of overall portfolio fetching higher realisations
- 6 power generation plants with ~104.5 MW grid capacity



## ALCOHOL

- 4 state-of-the-art alcohol producing facilities with capacity of 660 KLPD including 60 KLPD grain-based, 200 KLPD multi-feed, 400 KLPD molasses-based
- Flexibility of feedstock and product mix
- Products include Fuel-Grade Ethanol, Extra Neutral Alcohol (ENA), Rectified Spirit
- Overall capacity to be further expanded to 1110 KLPD (60 KLPD grain-based, 650 KLPD multi-feed, 400 KLPD molasses-based)



## POWER TRANSMISSION

- 3 business segments - Gears, Defence, Built to Print
- 10,000+ Gearboxes under operation
- Among the largest engineered to order turbo gears manufacturers
- Unmatched world-class delivery time, reputation for reliability & product excellence
- Our Defence Portfolio: Propulsion Gearboxes and other critical gearboxes, Critical Turbo and Motor-driven Pumps, Gas Turbine Generators for auxiliary power, Fin Stabilisers, Propulsion system integration, propulsion Shafting



## WATER SOLUTIONS

- Leading solutions provider for efficient water management for industrial/municipal/ urban applications
- 10,000+ Million Litres Per Day (MLD) of water treated
- Full range of innovative water/wastewater treatment solutions across all major water usage segments
- Customised, sustainable EPC solutions/services
- Efficient total water management across the water cycle

# OUR PAN-INDIA FOOTPRINT

**~204K**

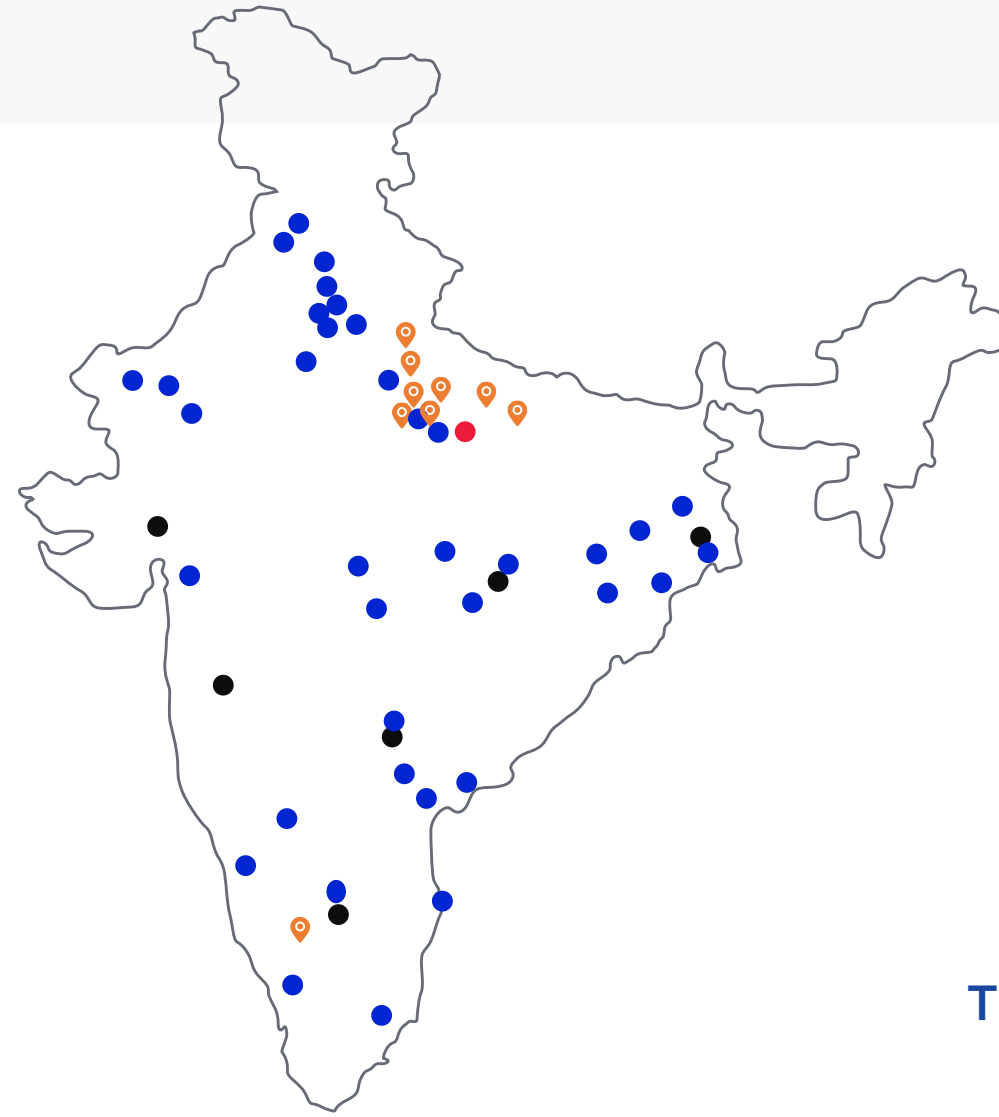
Hectare Area under Sugarcane

**~330K**

Farmer Network

**~61,000**

Tonnes per day crushing capacity



TEIL PLANTS 

TRIVENI WATER PROJECTS 

OUR SERVICE LOCATIONS 

Note: Map for representation purpose and not to scale

# FOUNDING PRINCIPLES



## ETHICS

- Professional and transparent business practices
- Strong focus on Environmental, Social and Governance (ESG)



## SUSTAINABILITY

- Leadership in all our business lines with sustainability at the core
- Enabling Environmentally responsive operations



## PRODUCT QUALITY

- Best in class manufacturing
- Internationally benchmarked on quality standards



## TECHNOLOGY

- Consistent R&D of technology to surpass customer needs
- Experienced team with an Innovation forward mindset



## STRONG RELATIONSHIPS

- Sustainable solutions that create a high degree of value for our customers
- Strong networks in place to enable smooth business operations



# ESG PRINCIPLES



Maintaining ecological balance while ensuring business excellence



Best-in-class sustainable processes and solutions across our operations and units



Fostering Community Development And Social Empowerment



Allocation of capital with focus to reduce carbon footprint and promote energy efficiency



Harnessing co-products to become raw materials for other products promoting circular economy



Highest level of ethical and corporate governance standards

# OUR ESG DRIVEN APPROACH TO BUSINESS



## ENVIRONMENTAL

- Power generation through bagasse, a renewable source of energy & co-product of sugar operations
- Utilising molasses for production of ethanol, a bio-fuel which lowers dependence on fossil fuels
- Reduction in Effluents through investments in treatment plants, incineration boilers, etc.
- Capture CO<sub>2</sub> and Potash rich ash from Distillery operations to extract value and limit impact to environment
- In power transmission, supplying to a multitude of industries that use renewable sources of energy and R&D to promote lower losses and increase efficiencies
- Leading water and waste water treatment company with a nationwide presence
- Promoting R&D in water and wastewater treatment through CII Triveni Institute
- Best practices in recycling and promoting conservation of natural resources



## SOCIAL

- Farmer relations through continuous communication
- Improving soil health through regular tests
- Engagement with farmer communities
- Customer satisfaction
- Data protection and privacy policies and efforts
- Employee diversity equity and inclusion
- Employee engagement and relations
- Health and safety
- Respect for human rights and compliance to labour principles



## GOVERNANCE

- Diverse Board of Directors with broad-based functional and managerial competencies and experience
- Visionary Company leadership
- Highest ethical standards
- Professionally run organization with highly experienced management team
- Accountability, transparency & fairness in business practices
- Well-structured Enterprise Risk Management (ERM) policy

[Click here for Key Policies](#)



**COMPANY  
OVERVIEW**



**OUR 5-YEAR  
JOURNEY**



**FINANCIAL  
RESULTS  
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**BUSINESS-WISE  
UPDATE**



**SHAREHOLDING  
PATTERN**



# 5-YEAR HIGHLIGHTS

## Well Diversified and Growing Revenues

- FY 19-23 Gross Revenue CAGR 19.0%
- Rising revenue contribution from non-sugar business from 21% to 34% during FY 2019-23

## Progressively improving profitability

- FY 19-23 PBIT CAGR 17.5%
- Sugar contribution progressively reducing; from 66% in FY 2020 to 49% in FY 2023

## Strong balance sheet position

- Improved leverage and cost of funds over the 5-year period
- ICRA reaffirmed Long Term Credit Rating of AA (Stable) in Mar 2023

## Consistent focus on returns

- Long history of returning cash through combination of dividend and buybacks
- In FY 23, Buyback of ₹ 800 crore completed and Final Dividend of 325% per equity share proposed

## FY 23 - a year of many milestones

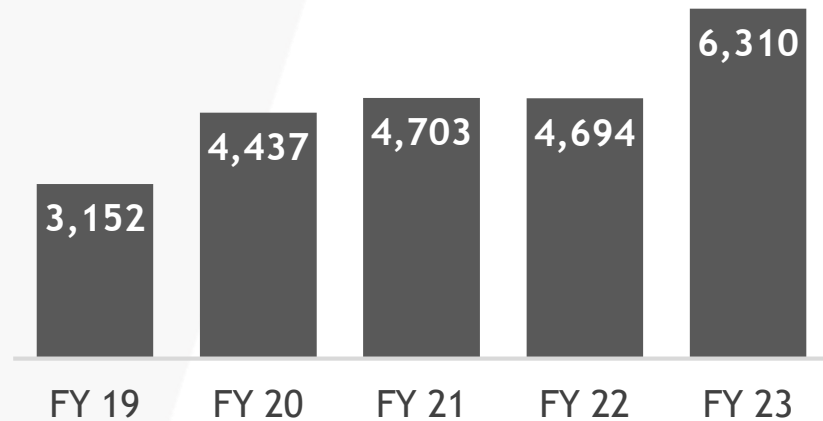
- Record sugarcane crush, record turnover across all businesses
- Healthy financial and operational metrics
- Buyback of ₹ 800 crore following monetisation of Triveni Turbine Limited stake

**FY 23 has further solidified our long-term history of financial & operational excellence**

# WELL DIVERSIFIED AND GROWING REVENUE BASE

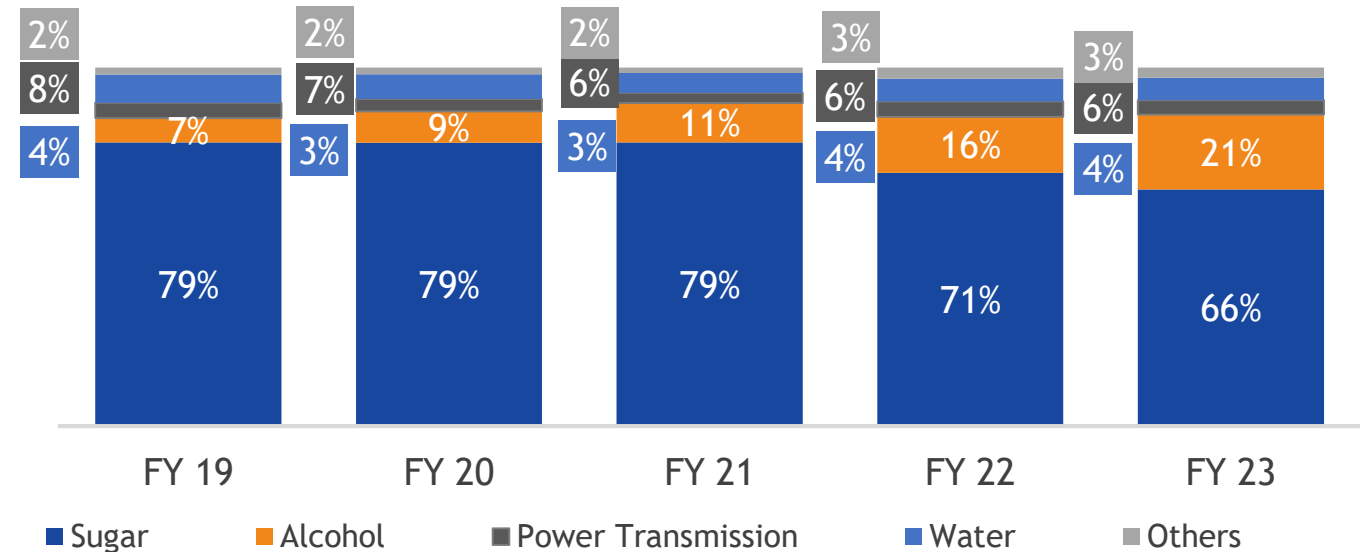
**FY 19-23 Revenue CAGR 19.0%**

Revenue from Operations (Gross)\*  
₹ Crore



**Rising non-sugar contribution from 21% to 34% during FY 2019-23**

Segment-wise Contribution to Revenue from Operations#

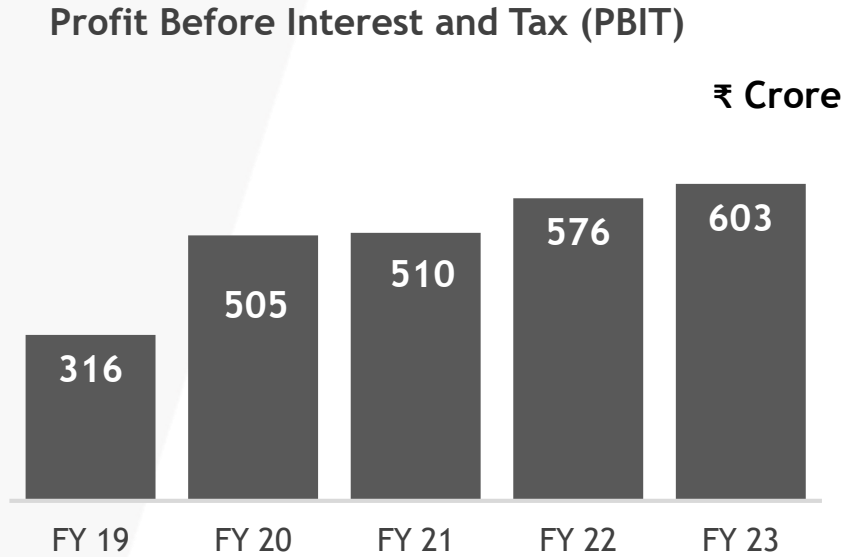


**Revenue growth of 19.0% p.a. during FY 2019-2023 with increasing contribution from non-sugar businesses**

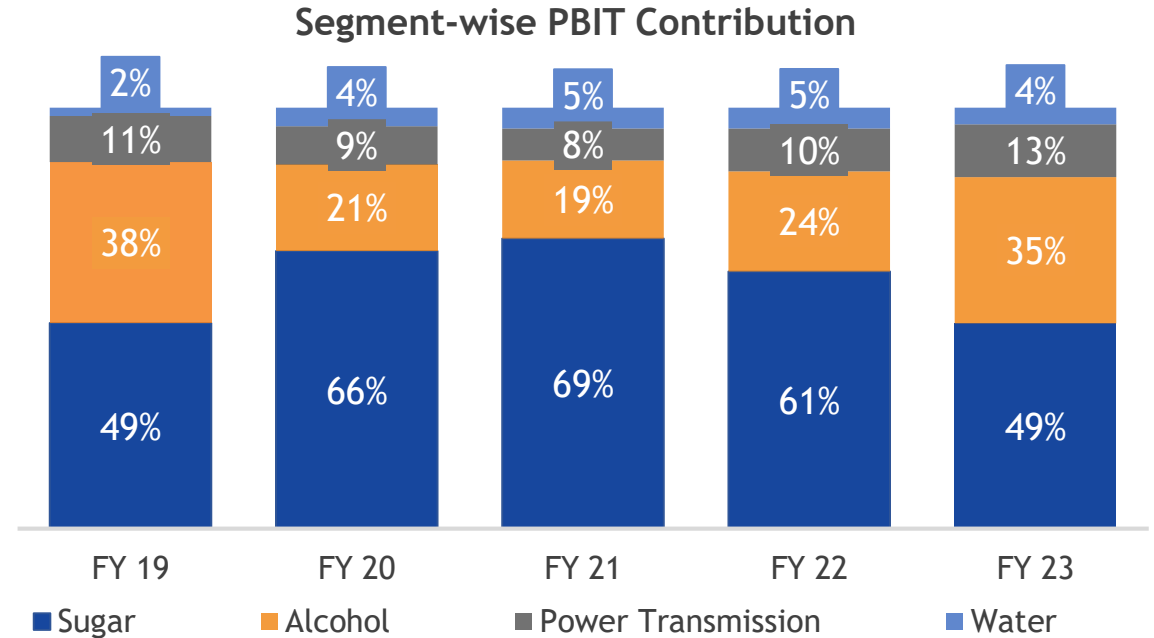
Note: \* Revenue from Operations (Gross) include Excise duty of ₹ 693.26 crore in FY 23, ₹ 403.10 crore in FY 22 and ₹ 29.18 crore in FY 21 on account of IMIL sales  
# Percentages calculated on Net Revenue from Operations excluding aforesaid excise duty. Intersegmental revenue adjusted from Sugar as these are largely due to sale of sugar by-products

# PROGRESSIVELY INCREASING PROFITABILITY WITH HEALTHY CONTRIBUTION FROM NON-SUGAR BUSINESSES

FY 19-23 PBIT CAGR 17.5%



Sugar contribution progressively reducing; 49% in FY 2023



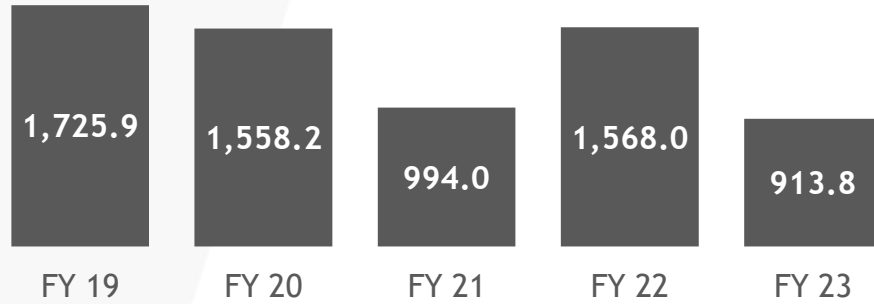
**PBIT growth of 17.5% p.a. during FY 2019-2023**

Note: In FY 19, distillery profitability was higher due to increase in operating days and higher capacity utilisation which resulted in higher production by 80% and corresponding increase in sales volume. The higher profitability was also contributed by lower raw material prices.

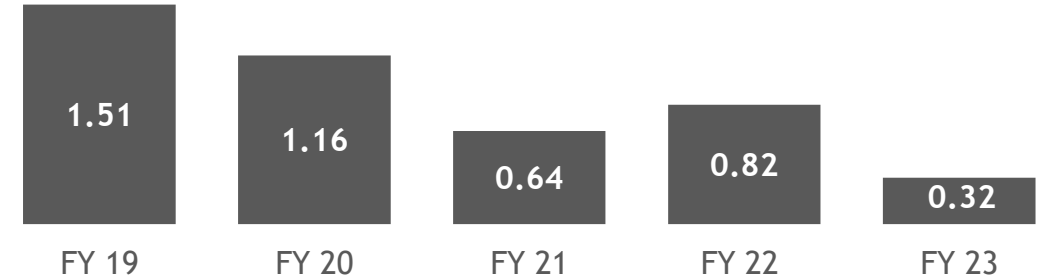


# STRONG BALANCE SHEET POSITION

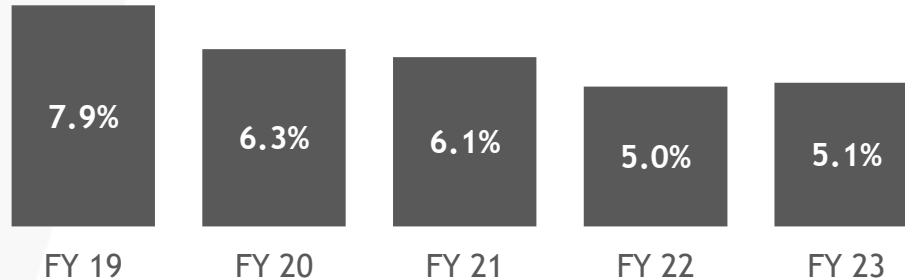
Total Consolidated Debt (₹ Crore)



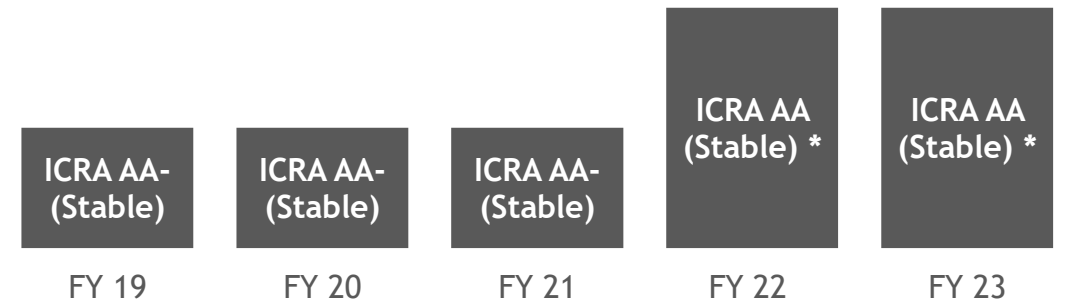
Total Consolidated Debt To Equity (x times)



Average Cost of Debt (Standalone)



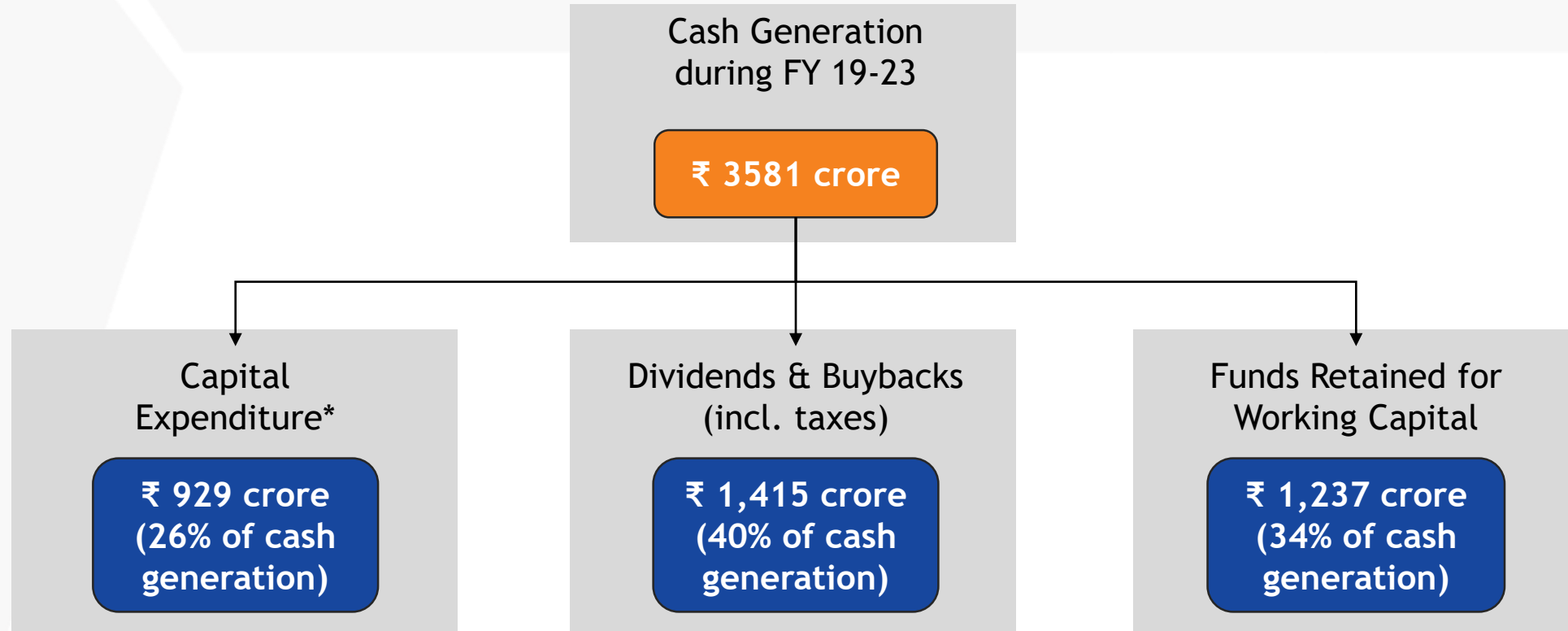
Long-term credit rating



Note: Lower debt to equity in FY 23 due to substantial exceptional income during the year

Note: \*Upgraded to ICRA AA- (Positive) on April 6, 2021 and further upgraded to ICRA AA (Stable) on November 23, 2021. Reaffirmed on March 24, 2023

# CREATING SHAREHOLDER VALUE



**Healthy mix of investments in business for future growth and returns to shareholders**

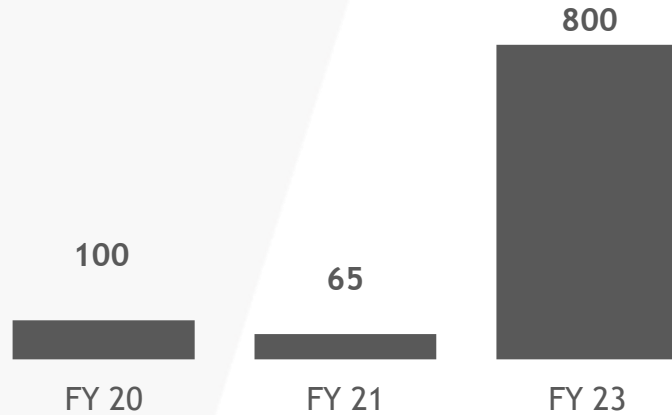
Note: Based on Standalone Statement of Cash Flows from FY 19 to FY 23

\*Capital Expenditure: Purchase of property, plant and equipment and intangible assets, net of term loans availed/paid

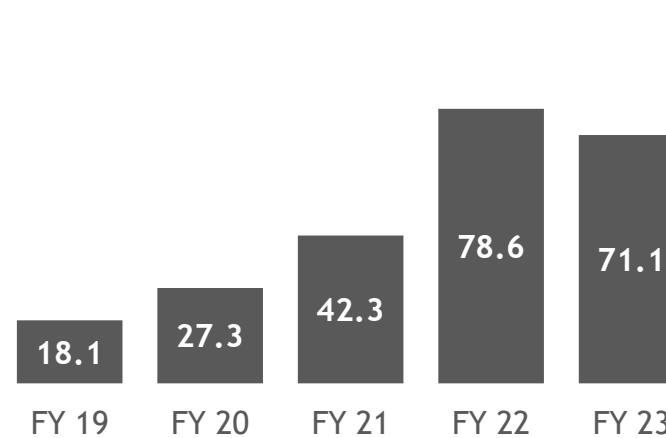
# ENHANCING SHAREHOLDER RETURNS THROUGH COMBINATION OF BUYBACKS & DIVIDENDS

₹ Crore

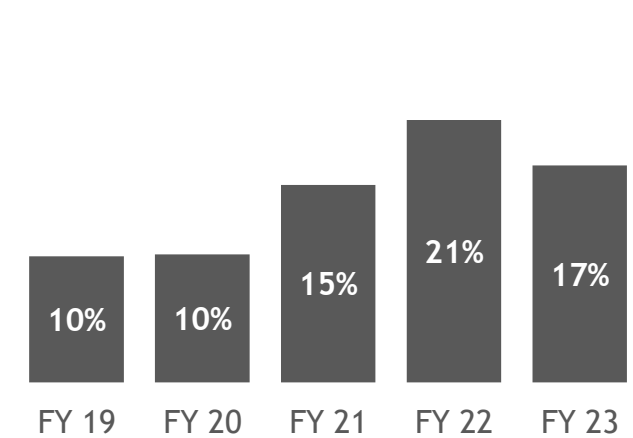
Buyback of Shares



Dividend



Dividend Payout Ratio (%)



**Past history of returning cash through combination of dividend and buybacks**

**In FY 23, Buyback of ₹ 800 crore completed and Final Dividend of 325% per equity share proposed**

**Dividend Policy: Payout ratio of the dividend is in the range of 15-25% of the normal business income after deduction of tax**

Note: The Company completed buyback of ₹ 100 crores, ₹ 65 crores and ₹ 800 crores in August 2019, August 2020 and February 2023 respectively. Buybacks under FY 20 and FY 21 were announced in preceding year. Dividend and buyback amounts are excluding taxes  
FY 23 Final Dividend is subject to shareholders' approval

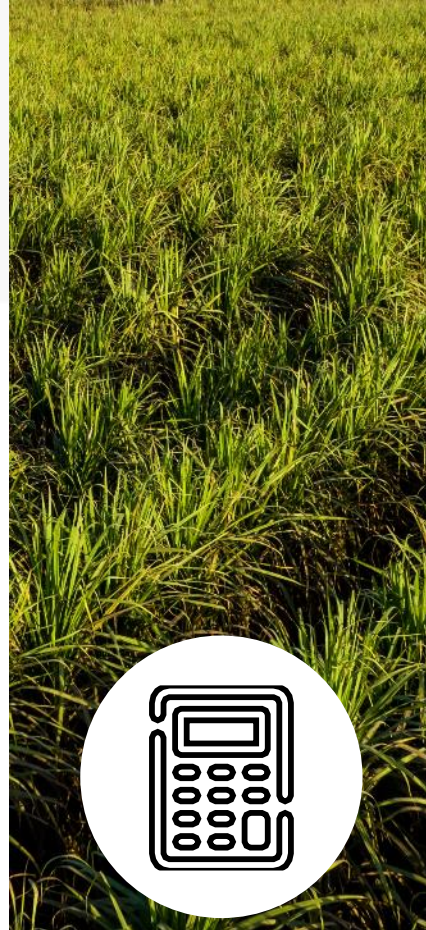




**COMPANY  
OVERVIEW**



**OUR 5-YEAR  
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**FINANCIAL  
RESULTS  
Q4/FY 23**



**BUSINESS-WISE  
UPDATE**



**SHAREHOLDING  
PATTERN**

# FY 23: A YEAR OF MANY MILESTONES

## Record Turnover

- Highest-ever turnover for the Company
- Record turnover across business segments
- Combined engineering business turnover crosses ₹ 500 crore to reach revenues of ₹ 577 crore

## Impressive Profitability and Financial Position

- Highest-ever EBITDA for the Company
- Combined engineering business PBIT crosses ₹ 100 crore
- Profit After Tax of ₹ 1792 crore
- Debt/Equity ratio of 0.32x

## Stellar Sugar & Distillery Business Performance

- Highest-ever sugarcane crushed in Sugar Season (SS) 2022-23 of 9.33 million tonnes
- Sugarcane crushing across all seven sugar units was higher than last season
- Alcohol production of 18 crore liters, increase of 7.3 crore liters or 68% y-o-y

## Robust Performance in Engineering Businesses

- Power Transmission business revenues and profitability increased by 22% and 19% respectively
- Water business revenues grew by 30%
- Outlook for both remains constructive boosted by good domestic demand and foray into international markets

## Record Returns to Shareholders

- FY 23 buyback of ₹ 800 crore completed & proposed final dividend of ₹ 3.25 per equity share (325%)

Note: FY 23 Final dividend is subject to shareholders' approval

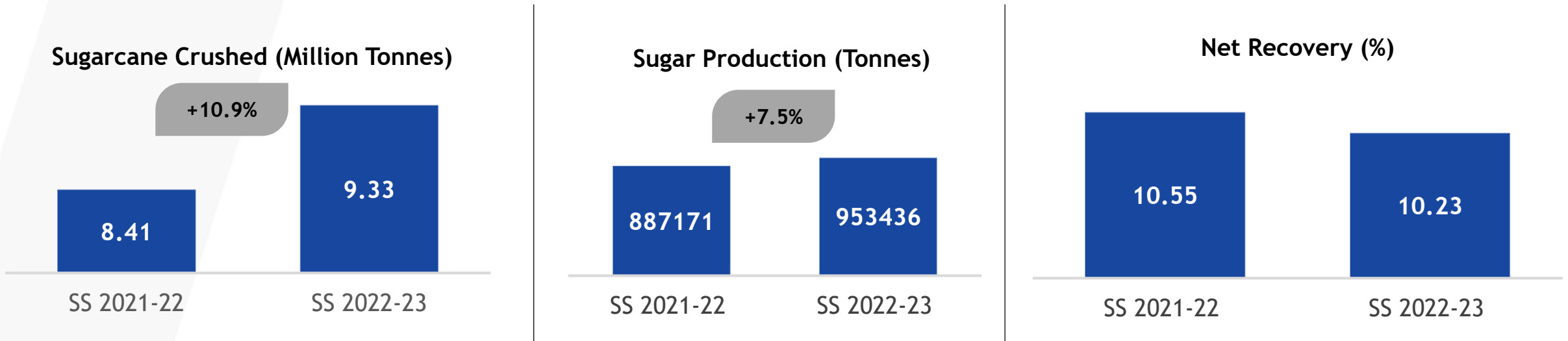
# FINANCIAL HIGHLIGHTS Q4 / FY 23

₹ Crore

	Q4 FY 23	Q4 FY 22	Change (%)	FY 23	FY 22	Change (%)
Revenue from Operations (Gross)	1,818.3	1,192.1	52.5	6,310.1	4,694.0	34.4
Revenue from Operations (Net of excise duty)	1,582.6	1,070.0	47.9	5,616.8	4,290.9	30.9
EBITDA	284.8	177.7	60.3	696.3	656.6	6.1
EBITDA Margin	18.0	16.6		12.4	15.3	
Share of income from Associates	-	7.3		16.3	59.1	-72.4
Profit Before Tax (PBT) Before Exceptional Items	250.6	150.1	66.9	562.4	580.5	-3.1
Exceptional Items - income/(expense)	-	(6.7)		1,401.2	(6.7)	
Profit Before Tax (PBT) After Exceptional Items	250.6	143.4	74.7	1,963.6	573.8	242.2
Profit After Tax (PAT)	190.3	109.2	74.3	1,791.8	424.06	322.5
Other Comprehensive Income (Net of Tax)	(2.5)	0.3		(3.8)	5.5	
Total Comprehensive Income	187.8	109.5	71.6	1,788.1	429.6	316.2
EPS (not annualized) (₹/share)	8.08	4.52	78.8	74.58	17.54	



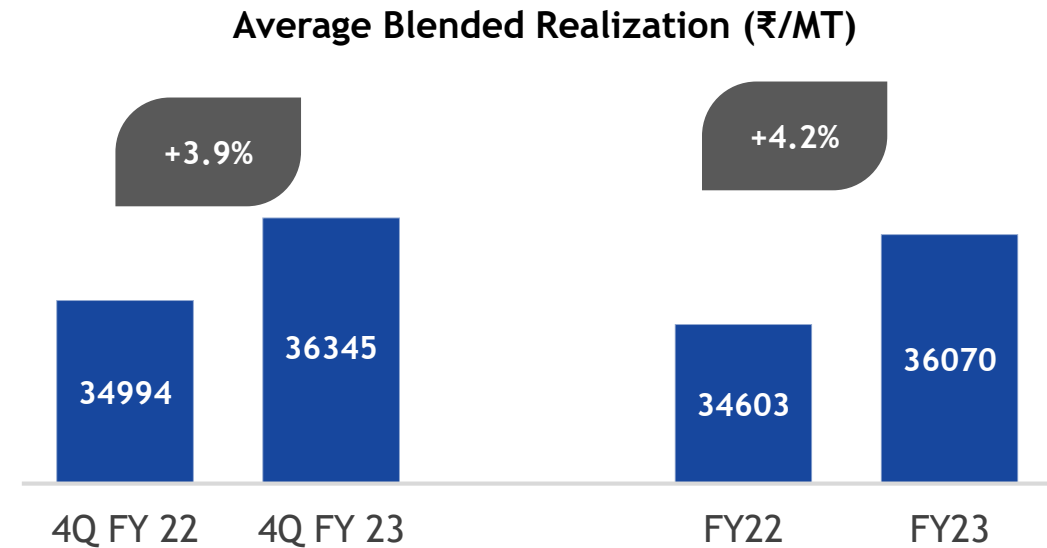
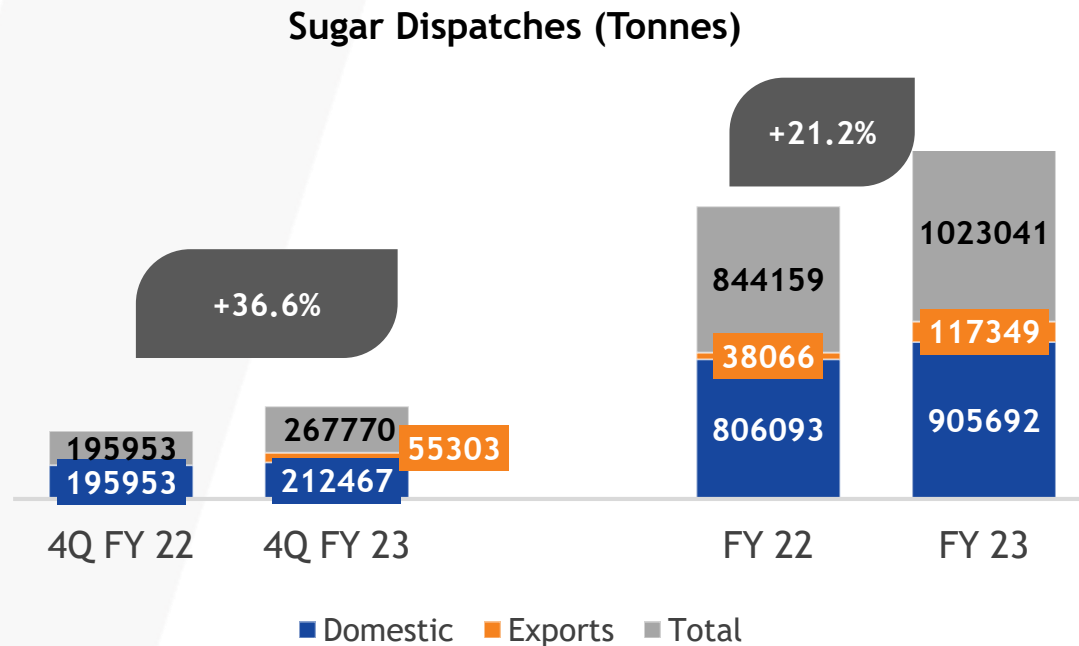
# SS 2022-23: RECORD SUGARCANE CRUSH IN THE SEASON



Record crush in SS 2022-23 owing to continued investments in modernisation, debottlenecking at three sugar facilities along with robust cane development programme

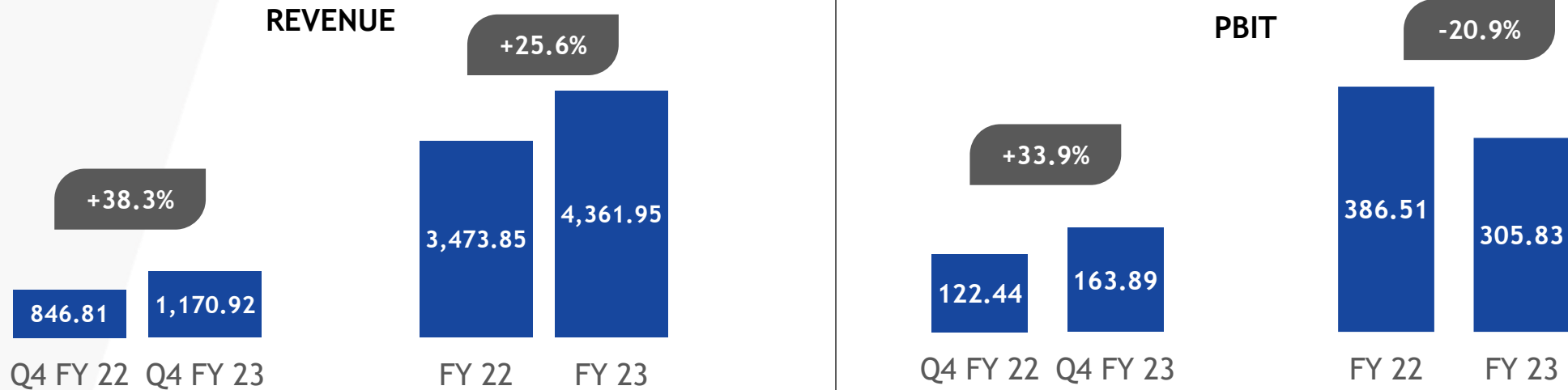
Net recovery of 10.23% with 92% of sugarcane crush with B-heavy diversion in SS 2022-23 vs. 84% in the previous season.

# SUGAR: HIGHER DISPATCHES AND REALISATIONS



- Achieved sugar exports of 190337 tonnes (including sale of quota for 72988 tonnes) in FY 23 out of total export quota of 204868 tonnes
- Sugar export prices were at a considerable premium to the domestic prices and have contributed significantly to the profitability

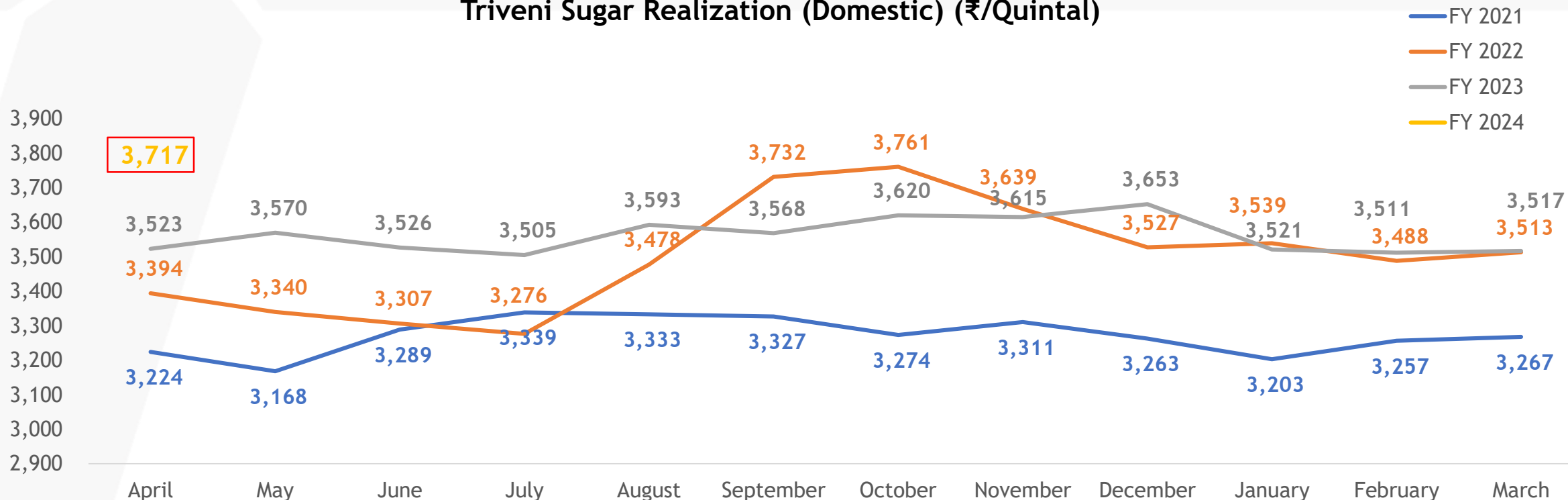
# SUGAR: HIGHER REVENUES; PROFITABILITY IMPACTED IN FY 23



- Revenues boosted by higher sales volumes and sugar realisations
- Profitability in sugar business is lower as the cost of sugar sold includes the impact of sugarcane price increase in SS 2021-22 and higher cost of sugar produced in the current season due to lower recoveries
- FY 22 included export subsidy of ₹ 57 crore relating to the previous period
- The sugar inventory as on March 31, 2023 was 46.34 lakh quintals, which is valued at around ₹ 33.7/kg

# SUGAR: HEALTHY DOMESTIC SUGAR PRICES SUPPORTED BY PREMIUM PRODUCT MIX

Triveni Sugar Realization (Domestic) (₹/Quintal)

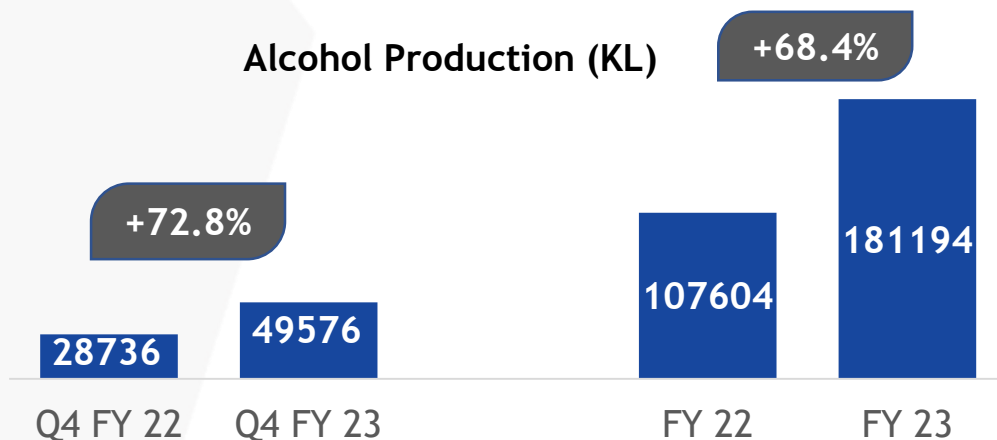


Improved realizations over last two years; FY 24 started on a high and we expect sugar prices to stay firm during the year

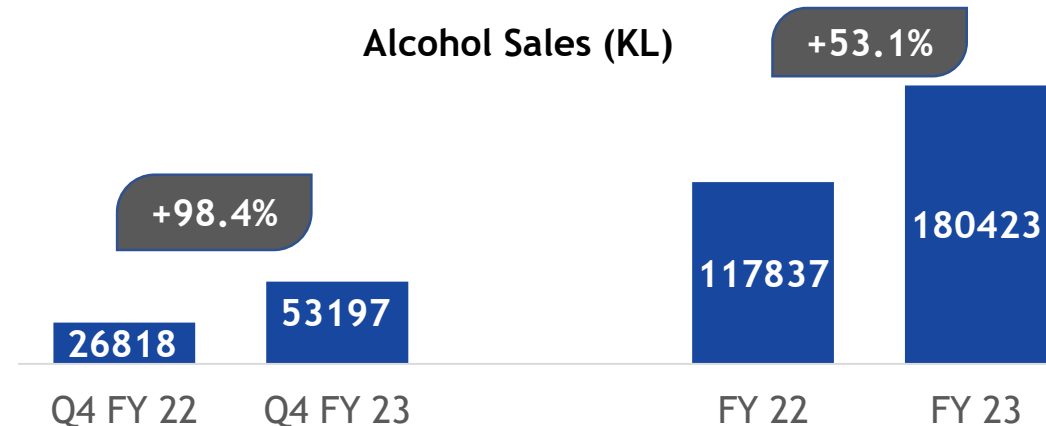


# ALCOHOL: HIGHEST EVER ALCOHOL PRODUCTION IN FY 23

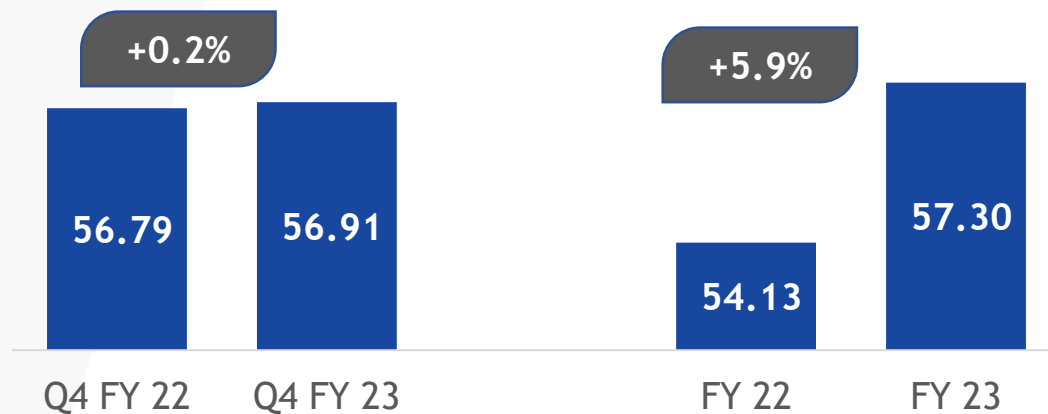
Alcohol Production (KL)



Alcohol Sales (KL)



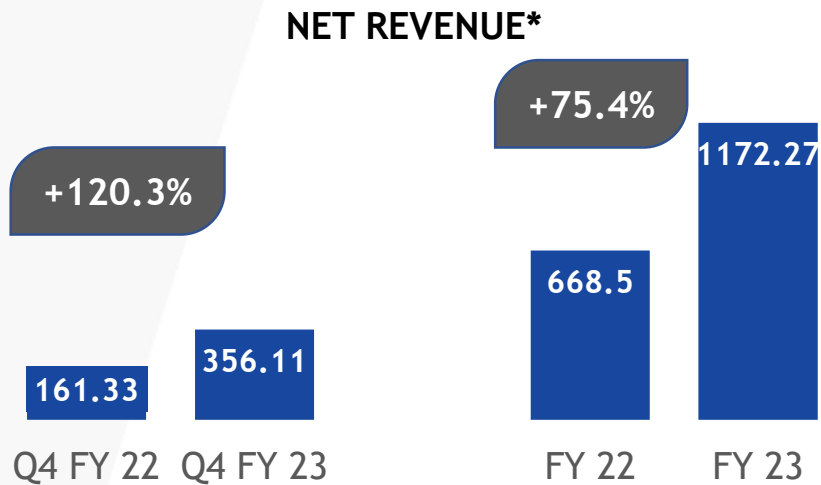
Avg. Realisation (₹/litre)



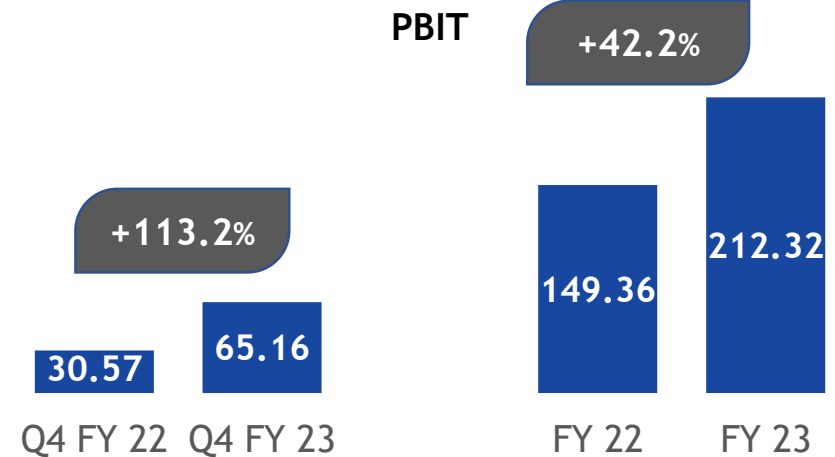
- Higher average realization due to increase in ethanol prices
- Sale of alcohol produced from sugarcane-based feedstocks (majorly B-heavy) constitutes 63% and 75% of the total alcohol sales for Q4 FY 23 and FY 23 respectively
- Sale of alcohol produced from grain commenced in FY 23 and accounted for 37% and 25% of total sales volumes in Q4 FY 23 and FY 23 respectively

Note: Q4 FY 23 and FY23 realisation includes relief announced by Oil Marketing Companies from June 1, 2022

# ALCOHOL: SALES GROWTH DRIVEN BY ADDITIONAL DISTILLATION CAPACITIES AND HIGHER REALISATIONS



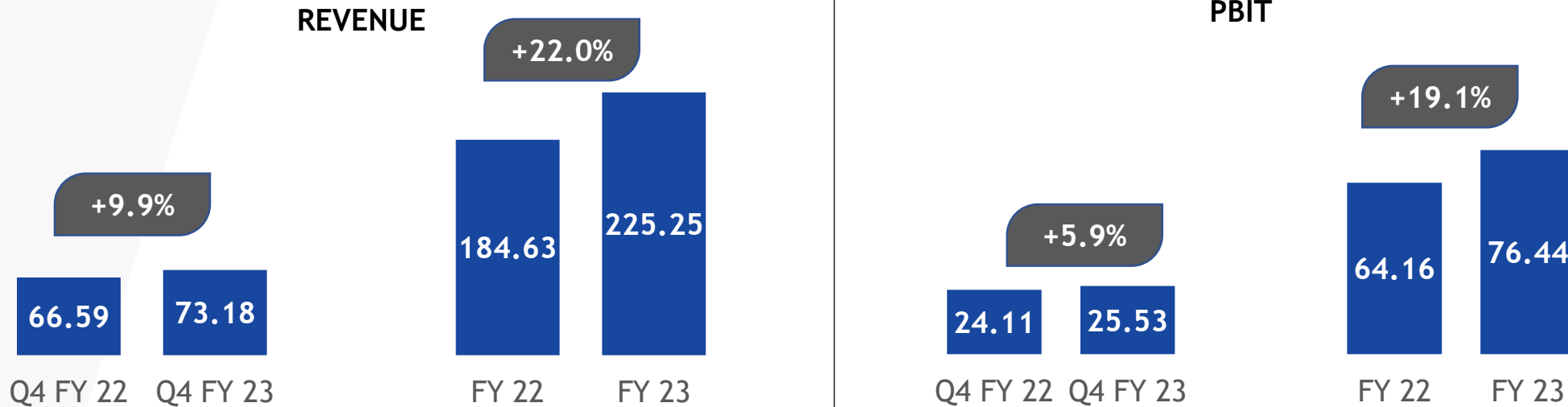
\* Revenue net of excise duty



- Additional capacities commissioned in FY 23 resulting in increased sales volumes
- Aggregate distillation capacity 660 KLPD
- The profitability has been impacted due to increased transfer price of B-heavy molasses, initial stabilization period of distilleries and relatively lower margin with grain as feedstock.

# POWER TRANSMISSION CONTINUES ITS GROWTH PATH

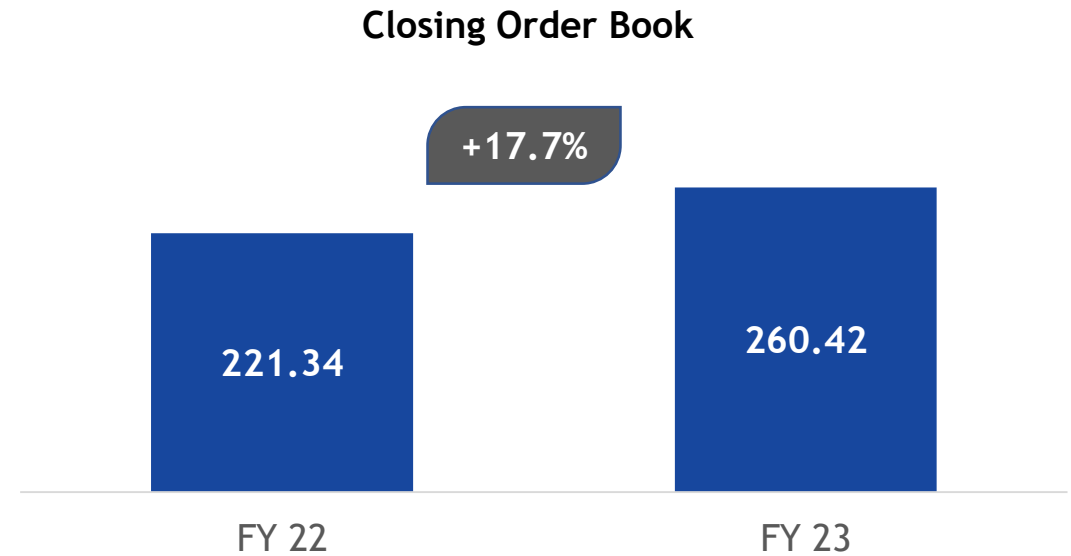
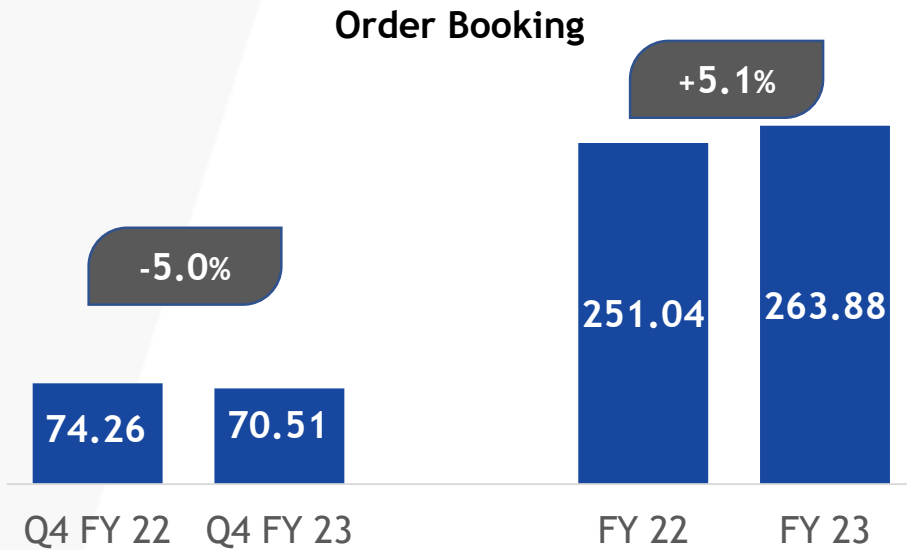
₹ Crore



- Increase in FY 23 turnover and profitability driven by product sales across OEMs
- In FY 23, the business added 18 new customers in the OEM segment contributing to its growth
- Profitability margins sustained at ~34% levels

# POWER TRANSMISSION CLOSING ORDER BOOK UP 17.7% Y-O-Y

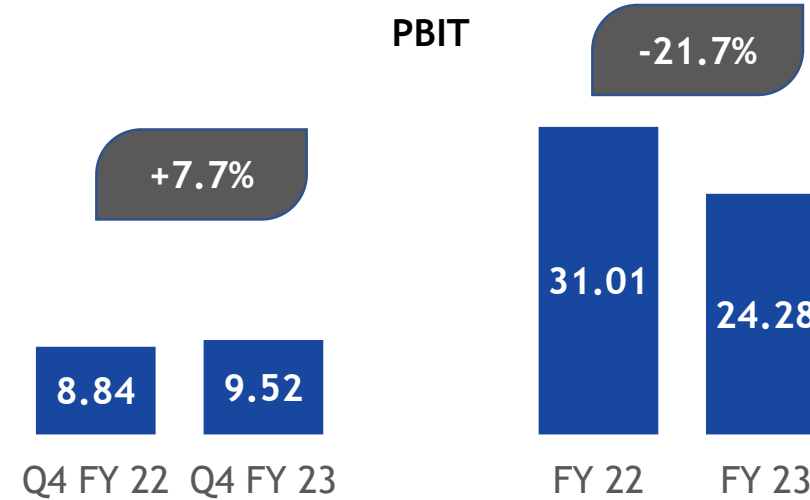
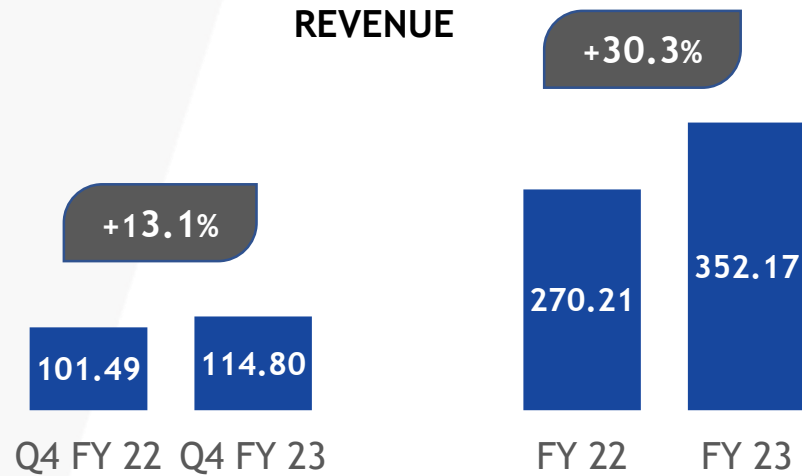
₹ Crore



- FY 23 order booking and closing order book growth driven by both product and aftermarket segments where the business is receiving a resounding market response from customers especially since it has been pursuing the high-speed high-power segment independently.
- Outstanding order book as on March 31, 2023 stood at ₹ 260.42 crore including long duration orders of ₹ 126.98 crore

# WATER: RECORD REVENUES IN FY 23

₹ Crore



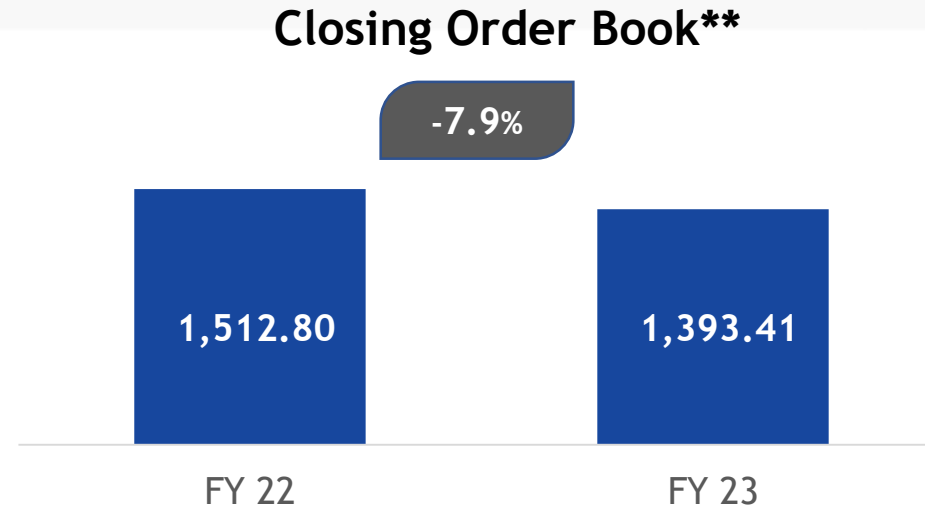
- Revenues increased by 30.3% driven by better execution
- The orders received in FY 23 stood at ₹ 192.08 crore excluding O&M orders

Note: These results are based on consolidated results including wholly owned SPV executing Mathura Project awarded by National Mission of Clean Ganga (NMCG) under Namami Gange Programme and PALI ZLD Pvt. Ltd.



# WATER BUSINESS ORDER BOOKING REMAINS ROBUST

₹ Crore



- The business is actively targeting foreign projects wherever it possesses the pre-qualifications and funding is ensured through multilateral and reputed agencies
- Long duration O&M orders in hand as on March 31, 2023: ₹ 916.86 crore

\*\*Including long duration orders for Operations & Maintenance (O&M)



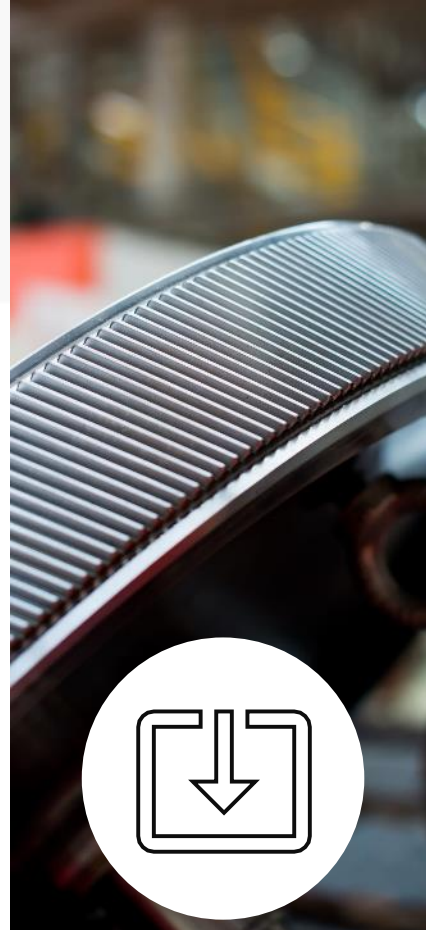
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PATTERN**



**SUGAR**



# GLOBAL SUGAR OUTLOOK

- International Sugar Organization (ISO), expects a substantially reduced surplus of 0.852 million tonnes, down from 4.151 million tonnes in February 2023 in the current season.
- Changes were driven by increase in production in Brazil, however the smaller increase in Thailand and lower estimates for Indian and European production were the biggest negative contributors.
- International sugar prices have rallied to record highs in 2023 with all the news priced in. In our view, any supply side shocks could take these higher further.





# DOMESTIC SUGAR OUTLOOK

- With an opening balance as on October 1, 2022 of around 5.5 million tonnes, estimated sugar production for SS 2022-23 of around 32.8 million tonnes, exports of 6.15 million tonnes, and estimated domestic sales of around 27.2 million tonnes, the closing balance as on September 30, 2023 is expected to be around 5 million tonnes
- Increasing chances of monsoon rains getting impacted by El Nino this year as expressed by various meteorological agencies
- For Triveni, majority of the sugarcane areas associated with our factories are located in river & well-connected canal system and supplemented by tube wells/borewells based irrigation methods and therefore are far less likely to get impacted due to scanty monsoon rains as compared to other sugarcane cultivating regions.



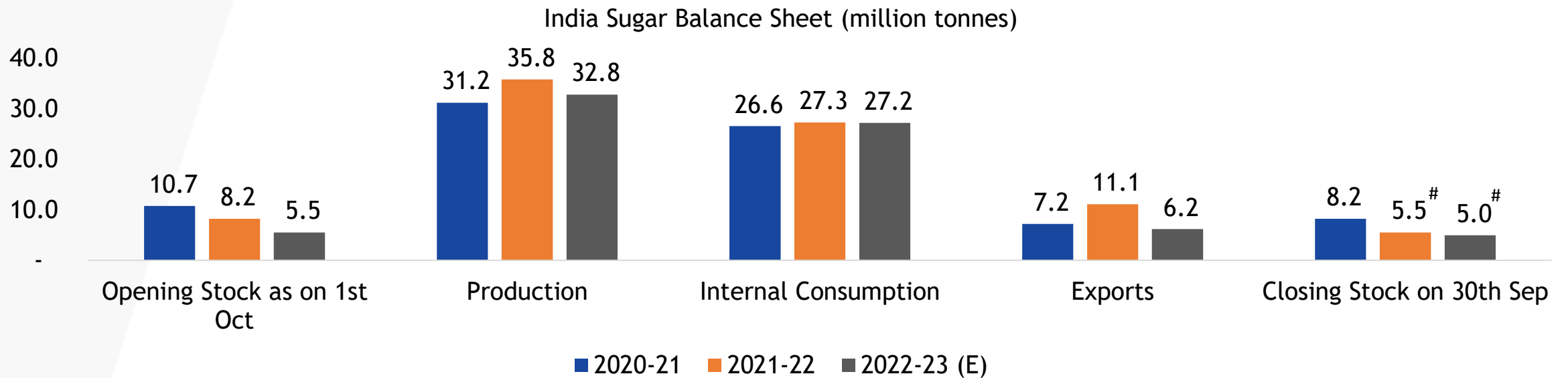
# THE INDIAN SUGAR INDUSTRY IS MOVING AWAY FROM CYCLICALITY

- Structural shift from a cyclical industry into more secular and consistent performance-based industry driven by timely and predictable Government intervention
- Consistent production much above the consumption levels, has led to a surplus and India becoming a regular exporter of sugar
- Record exports ~11.1 million tonnes during SS 21-22 despite no export assistance; 6.15 million tonnes estimated during SS 22-23
- Also supported by progressively increasing diversion of sugarcane for production of ethanol under EBP programme from 0.34 million tonnes in SS 18-19 to 3.4 million tonnes in SS 21-22, increasing further to 4.0 million tonnes in SS 22-23



# INDIA SUGAR BALANCE SHEET: CLOSING STOCKS OF ~5 MILLION TONNES EXPECTED FOR SS 2022-23

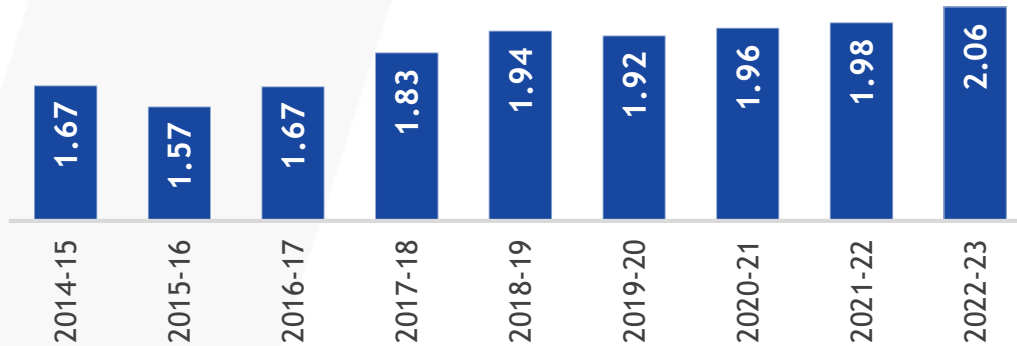
+2.0 million tonnes\*      +3.4 million tonnes\*      +4.0 million tonnes\*



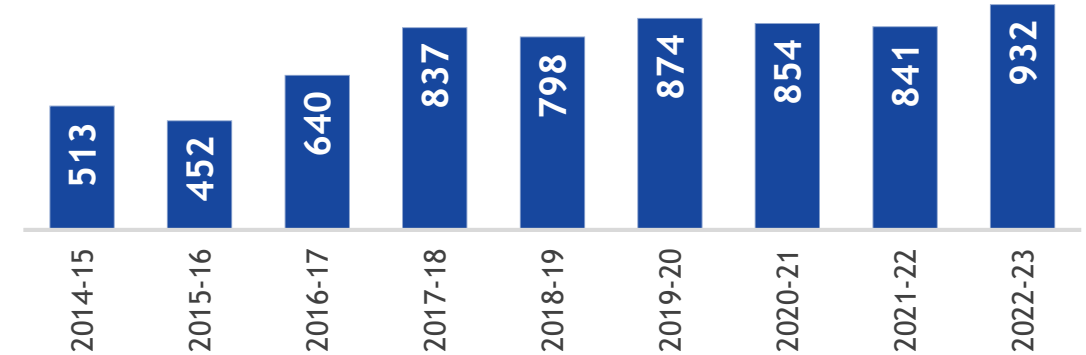
Source: Triveni Estimates  
 \*sugar diversion to ethanol production  
 #Closing stock doesn't include pipeline stocks

# STELLAR SUGAR BUSINESS PERFORMANCE YEAR AFTER YEAR

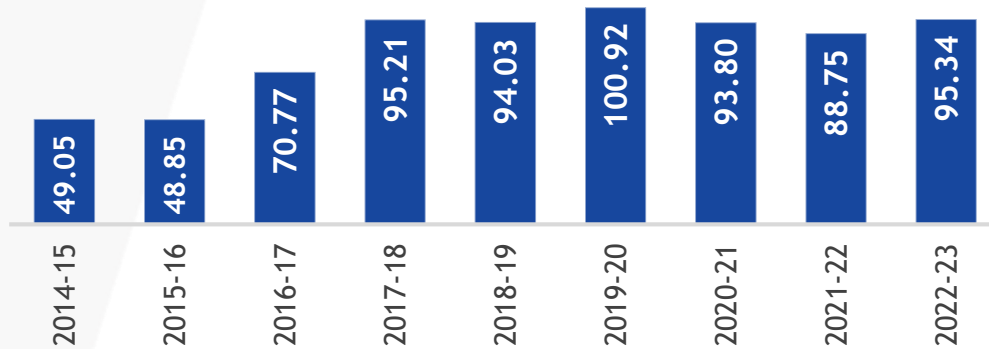
Area under Sugarcane (Lakh Hectares)



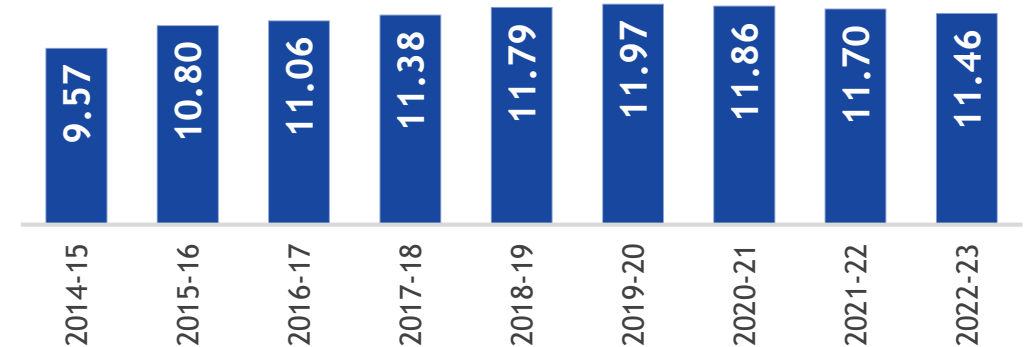
Sugarcane Crushed (LQ)



Sugar Produced (Lakh Quintals)



Gross Recovery (%)



Note: Data for Sugar Seasons; Gross recoveries (after adjustment on account of B-heavy molasses and syrup diversion)  
Recent crush and recoveries impacted by climatic factors across the state of UP; Triveni amongst the leaders in peer group



# THE TRIVENI USP

- **Strategic Location:** Presence in Western and Central UP which has one of the best cane area with high yields and water availability. Strong farmer relations, timely cane payment resulting in high drawl rates and good cane productivity
- **Strong recovery:** The Company has one of the best recoveries in the state of Uttar Pradesh
- **Product Mix and Price Benefit:** production capacity of ~60% refined sugar, coupled with the high-grade pharmaceutical quality sugar produced, helps secure higher realisations
- **Prestigious Customer base:** Key supplier to major multinational soft drink companies, leading confectionery manufacturers, breweries, pharmaceutical companies, dairies and leading ice cream producers.
- **~330k+ farmer relationships**



# OUR SUGAR BUSINESS INITIATIVES

## Ongoing:

- Expansion in the capacity of one of the existing sugar units at Sabitgarh by 2000 TCD (from 7000 TCD to 9000 TCD). With the proposed expansion, the total crushing capacity of the Company will stand augmented to 63,000 TCD
- Process change to at Milak Narayanpur
- Modernisation, debottlenecking & efficiency improvements at various sugar units towards cost optimization
- Enhancing cane availability with minimal capex to increase the raw material for both sugar and distillery operations
- Structured Cane Development Programme for varietal substitution to gradually replace the star Co-0238 variety by other high sugared and high yielding cane varieties

## Completed:

- Modernisation of three of the existing sugar units at Khatauli, Deoband and Sabitgarh in Uttar Pradesh which has led to enhancement in crushing efficiency in SS 2022-23
- Doubling capacity for pharma sugar which fetches a substantial premium over refined sugar, making Triveni among the largest producer in the country

# CANE DEVELOPMENT PROGRAMME

- **Significant focus on Yield improvement through various agronomic interventions** (e.g. wide spacing, trench planting, etc.)
- Emphasis on before wheat planting has led to an overall increase in its area, providing higher time in the field to the spring planted cane
- **Active engagement with farmers:** Development of very large number of model demonstration (demo) plots with 40-50% higher yields, for neighbouring farmer visits to understand know-how on yield enhancement activities, which can be replicated in own plots with an objective on yield and thereby income enhancements
- **Soil Health Improvement:** Application of balanced dosage of fertilizers & nutrients as per soil analysis reports and recommendations
- **Crop Protection** from different Pests & Diseases using a structured surveillance programme. **Farm implements and mechanization** for enhancing inter-cultural operations, etc.
- Various **digital initiatives** towards cane development programme





# TRIVENI BRANDS: GETTING FUTURE READY

- Triveni sees a bright future for branded sugar in India, set to grow at double digit CAGRs over the next 5 years
- Tremendous scope to bring to market higher grade and quality offerings with premiumization trends
- Focus on high quality products under trustworthy brands with an omni channel sales & distribution strategy while maintaining a lean structure
- Triveni Sugar brings to market Premium White Crystal Sugar, High grade brown sugar, SweetLite (A stevia blended product) & coloured sugar - all in the premium priced zone.
- North India's largest contract manufacturing business around private label sugar
- FY 23 revenue of Triveni brands @ ₹ 133 crore





**ALCOHOL**

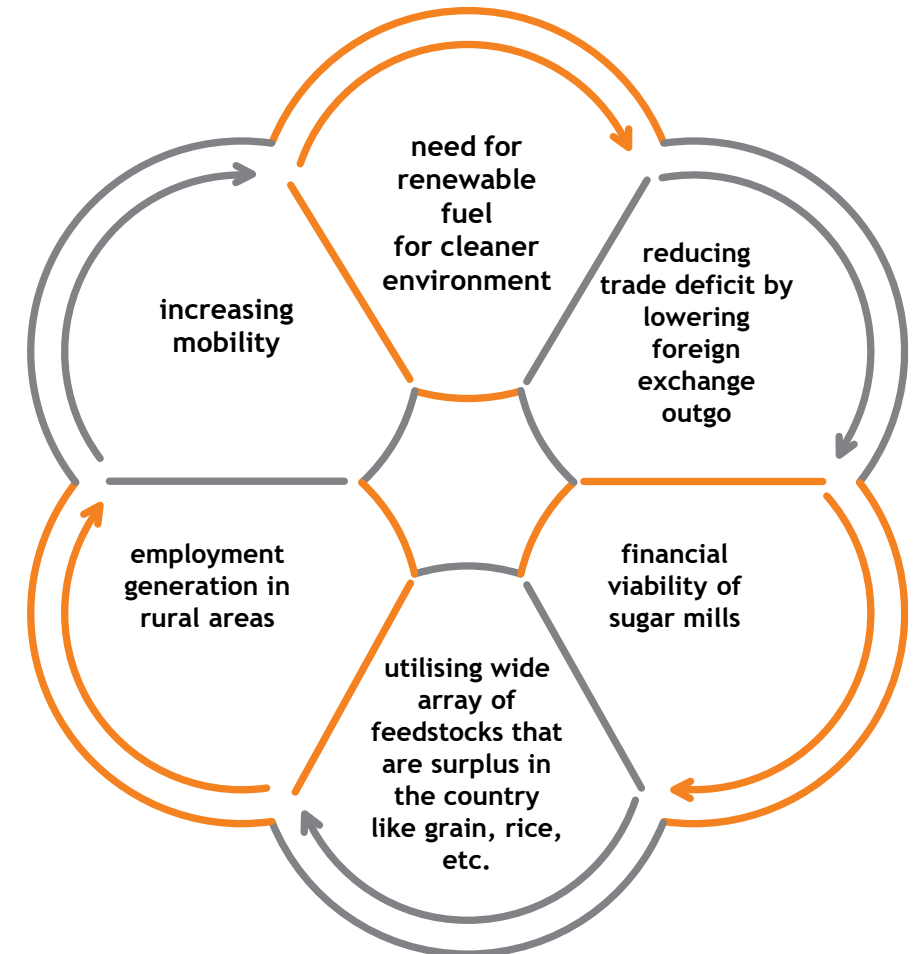




# ALCOHOL SEGMENT DRIVEN BY ETHANOL DEMAND

- Government actively promoting the production and blending of fuel ethanol with petrol, and has targeted 20% blending under Ethanol Blended Petrol (EBP) Programme by 2025 or EBP20
- To achieve the target of 20% blending by 2025, ~1,000+ crore litres of ethanol will be required. With ~300+ crore litres for other usage, there is need to create capacity of ~1,700 crore litres, assuming plants operate at 80% efficiency.\*
- Industry and Triveni estimates of ~4.0 million tonnes of sugar will get diverted during SS 22-23 for ethanol production which was around 3.4 million tonnes during previous season

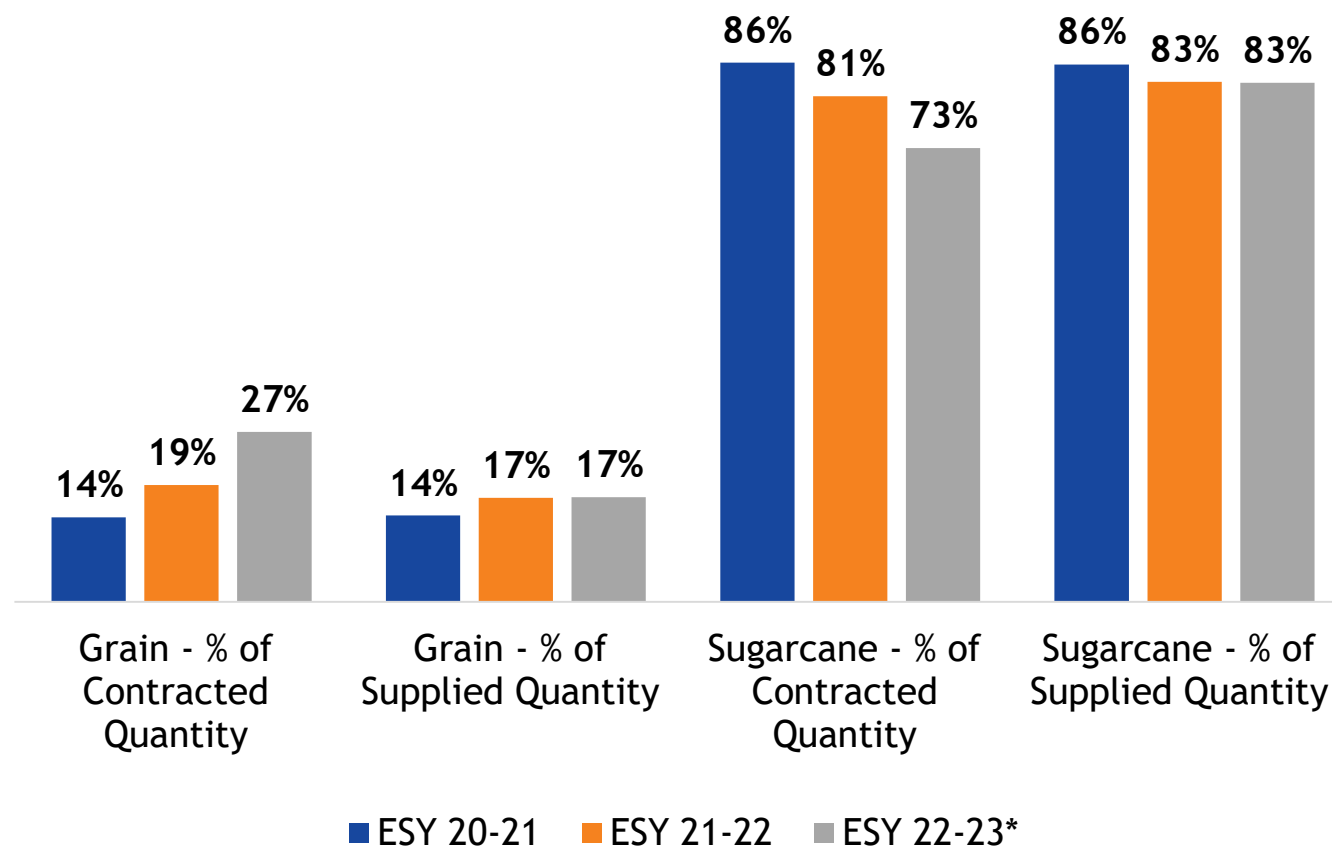
## Ethanol Demand Drivers



\* Source: May 2023 comments from Food and Consumer Affairs Ministry

# SUGARCANE - THE MAINSTAY OF THE ETHANOL BLENDING PROGRAMME

- Ethanol from sugarcane route continues to dominate and contributes 83-85% of total supplied quantities, despite having a lower share for last two years in terms of contracted quantity.
- We believe sugarcane will remain the major contributor to the production of ethanol under EBP20.
- **Triveni:** Sale of alcohol produced from grain commenced in FY 23 and accounted for 37% and 25% of total sales volumes in Q4 FY 23 and FY 23 respectively.

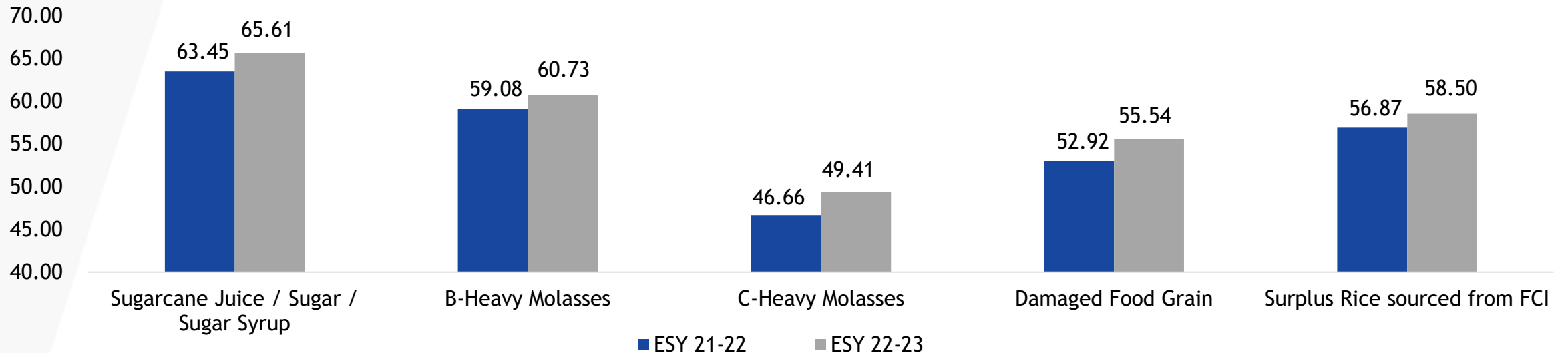


Note: \*ESY 22-23 is Dec-22 to Oct-23 i.e. 11 months. Data for ESY 22-23 till May 7, 2023)

# CONTINUED ETHANOL PRICING IMPROVEMENTS

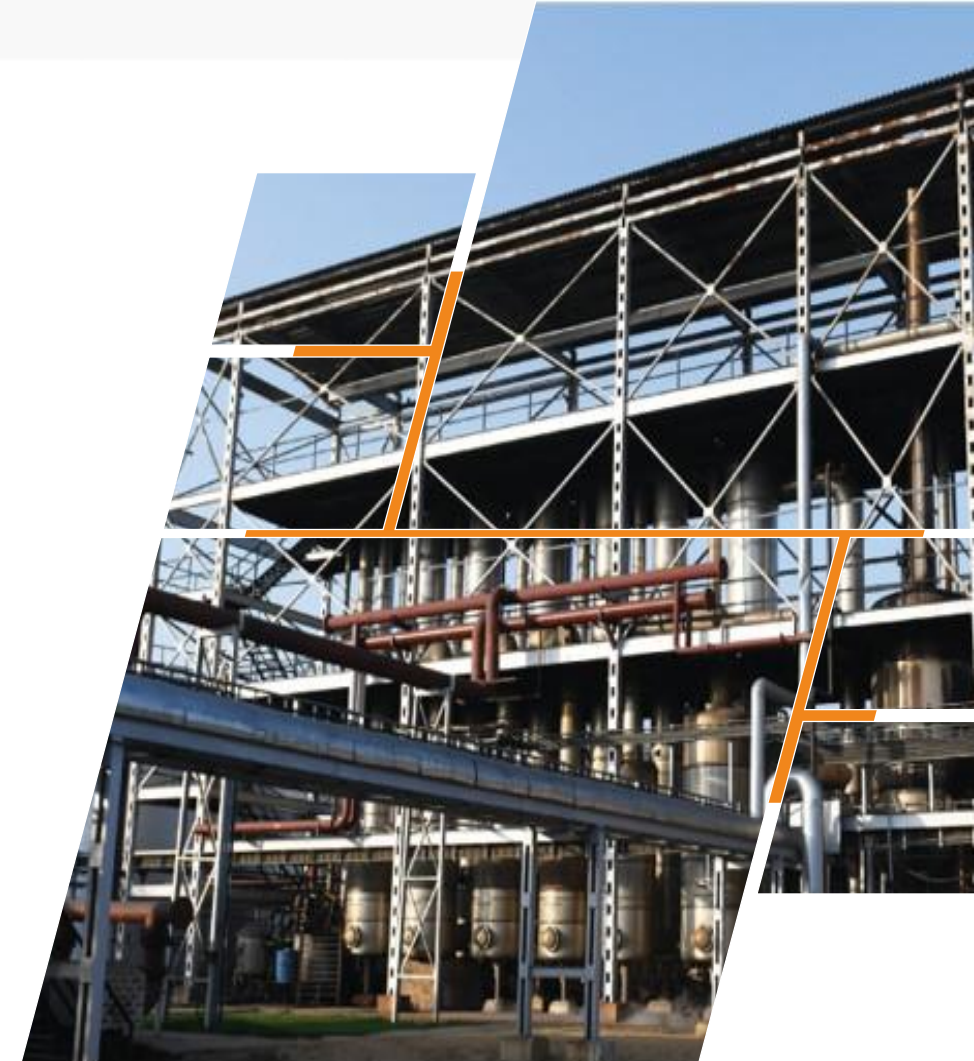
- Government has been incentivizing the industry through supportive ethanol prices under the EBP Programme
- Prices were revised for Ethanol Supply Year (ESY) 2022-23, however we believe that to achieve the aggressive blending targets more support is needed especially for sugarcane juice/syrup and grain as feedstocks
- Ethanol Supply Year (ESY) has also been redefined as a period of ethanol supply from 1st November of a year to 31st October of next year from 1st November 2023 onwards. In view of the above change in ESY period, the ESY 22-23 period will be considered from 1st December 2022 to 31st October 2023 i.e. 11 months

India Ethanol Pricing (₹/litre)



# OUR ALCOHOL BUSINESS STRENGTHS

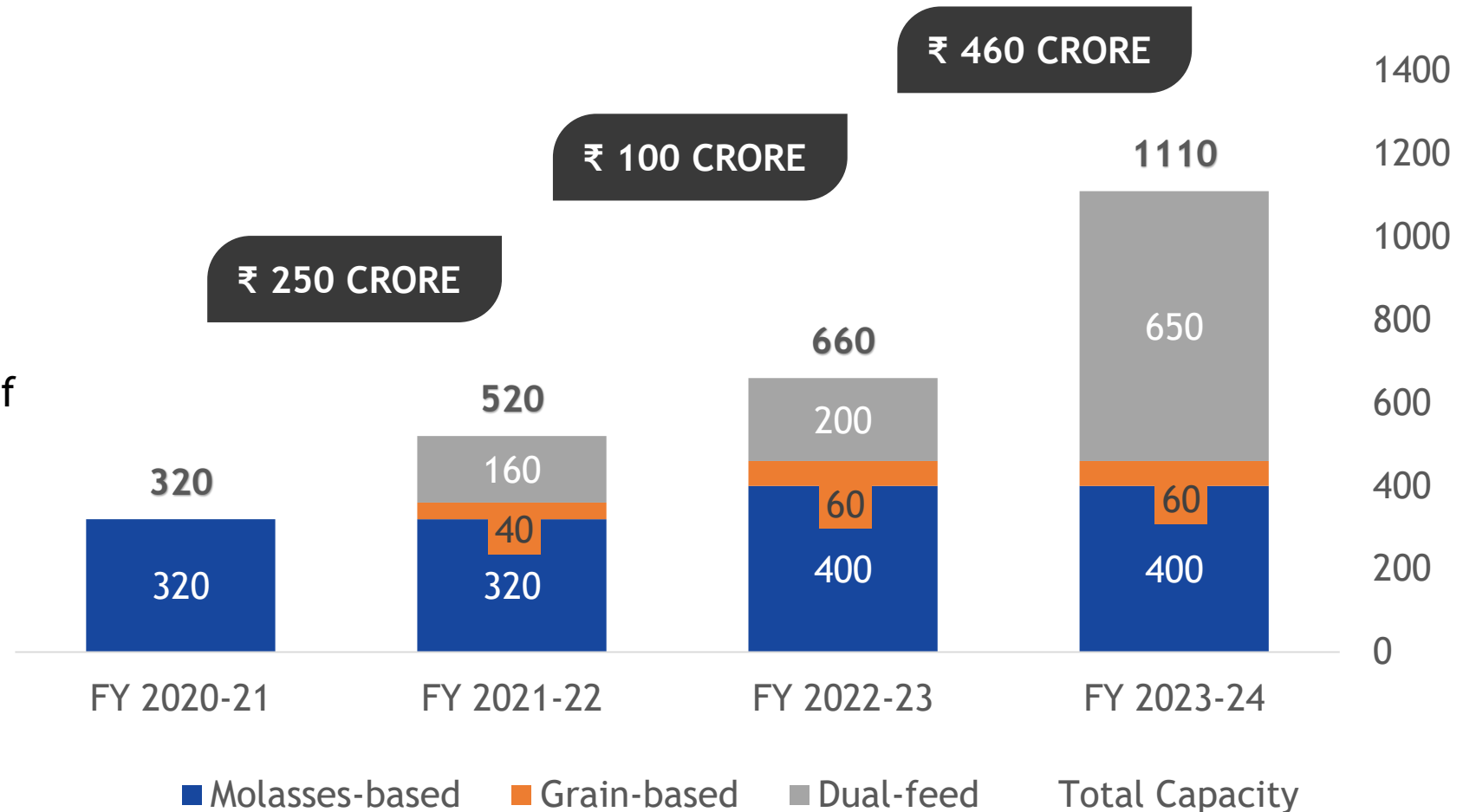
- **Flexibility of both feedstock (grain/sugarcane based) and product mix (ethanol/ENA/Rectified Spirit, etc.) to optimize production and profitability based on economics**
- **High operational efficiencies with continuous focus on the same to further improve recoveries and reduce supplementary fuel**
- **Full capacity utilization to maximize production**
- **High adherence to Environment, Health, Safety and Sustainability standards**
- **Modern & Efficient Technology employed to achieve Zero Liquid Discharge (ZLD)**



# TIMELY AND EFFICIENT INVESTMENTS TO INCREASE DISTILLATION CAPACITIES

In KLPD

- Triveni has been at the forefront of setting up distillation capacities in a timely and efficient manner
- Short timeframe in setting up large scale distilleries utilizing the entire range of established feedstocks has been a key strength





# OUR ALCOHOL BUSINESS INITIATIVES

## Ongoing:

- Overall capacity will be further expanded to 1110 KLPD
- **Enhancement of cane availability:** Higher cane crush will boost availability of sugarcane derived feedstock for distillery operations
- **Enhancing various value adding propositions** through sale of DDGS, potash-rich fly ash, CO2

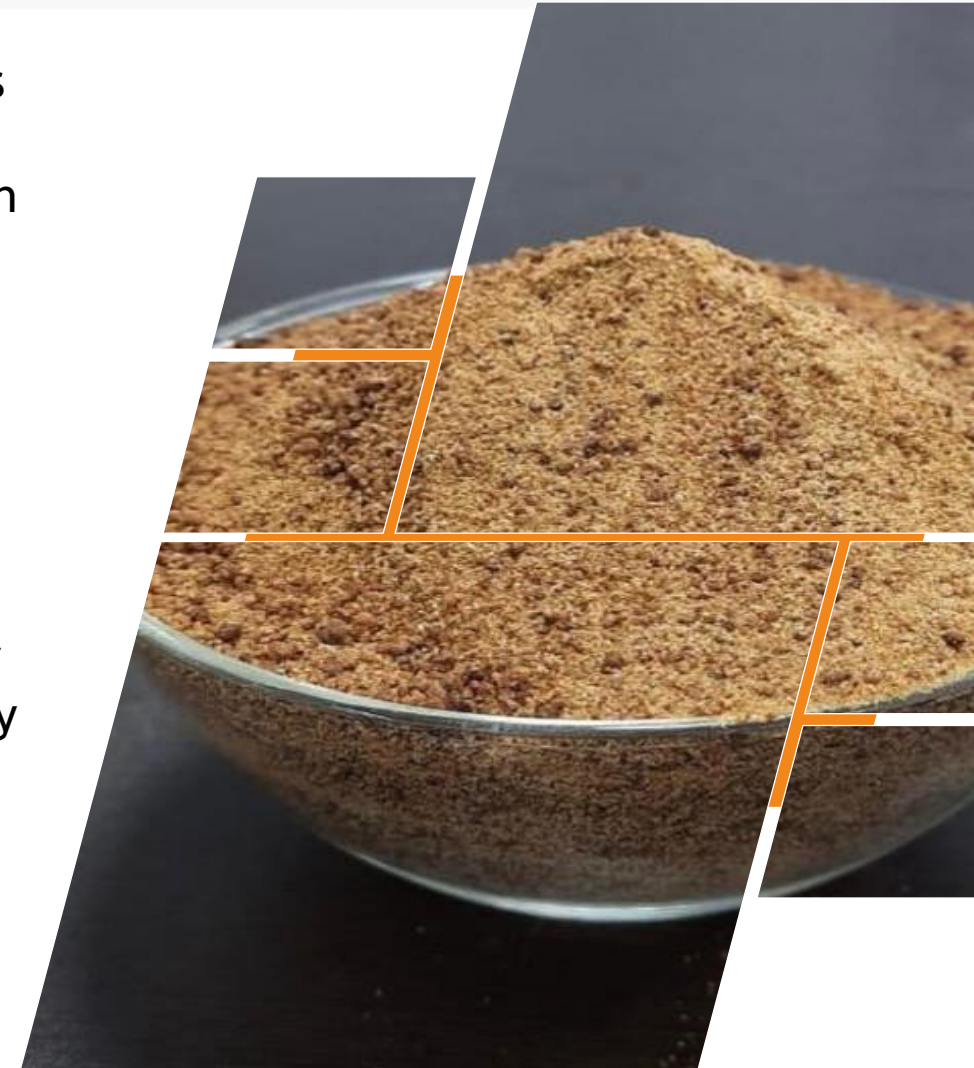
## Completed:

- **Capacity expansion:** Achieved overall capacity of 660 KLPD. **First company to see such large incremental capacity coming onstream** with Milak Narayanpur being the first distillery of its size in the country utilizing the entire range of feedstocks

# OUR VALUE ADDED PROPOSITION: DISTILLERS DRIED GRAIN SOLUBLES (DDGS)

Facilities at Milak Narayanpur & Muzaffarnagar to help us enhance our value proposition through their partial/full operations on grains

- The by-product of grain-based operations, DDGS, is a protein rich product derived from grains after converting starch in fermentation with yeast to produce Ethanol
- It provides a good amount of protein, fibres and other nutrients, and is a food supplement for poultry, cattle feed, livestock, aquatic products, etc.
- With no branded DDGS currently in the market, the potential for boosting our revenues and enabling profitability with high quality DDGS
- DDGS selling price of ₹ 25-30/kg translating to ₹ 9-11/liter of alcohol leading to significant offset of raw material and conversion cost



# OUR VALUE ADDED PROPOSITION: FLY ASH

The process of conversion of molasses to ethanol generates spent wash (an effluent) which upon concentration is called Slop, further used as fuel in the Incineration boilers which leads to fly ash generation which is rich in potash

We supply this fly ash for additional revenues, wherein the customer convert the same to produce granules of potassic fertilizers.





## OUR VALUE ADDED PROPOSITION: CO<sub>2</sub>

- In the fermentation process of alcohol manufacturing, carbon dioxide is generated as a by-product. This carbon dioxide can be captured, purified, liquified and put into cylinders or converted into dry ice.
- The Company has a carbon dioxide capturing unit at its Sabitgarh distillery on a BOO basis for which we are paid for the raw carbon dioxide to earn additional revenues. Exploring the possibilities of installing 2 more plants in units
- This is an initiative towards Environment, reduction of emission of Green House Gases (GHG). New opportunities on carbon sequestration by capturing CO<sub>2</sub> and storing / injecting underground for mineral value are also being explored





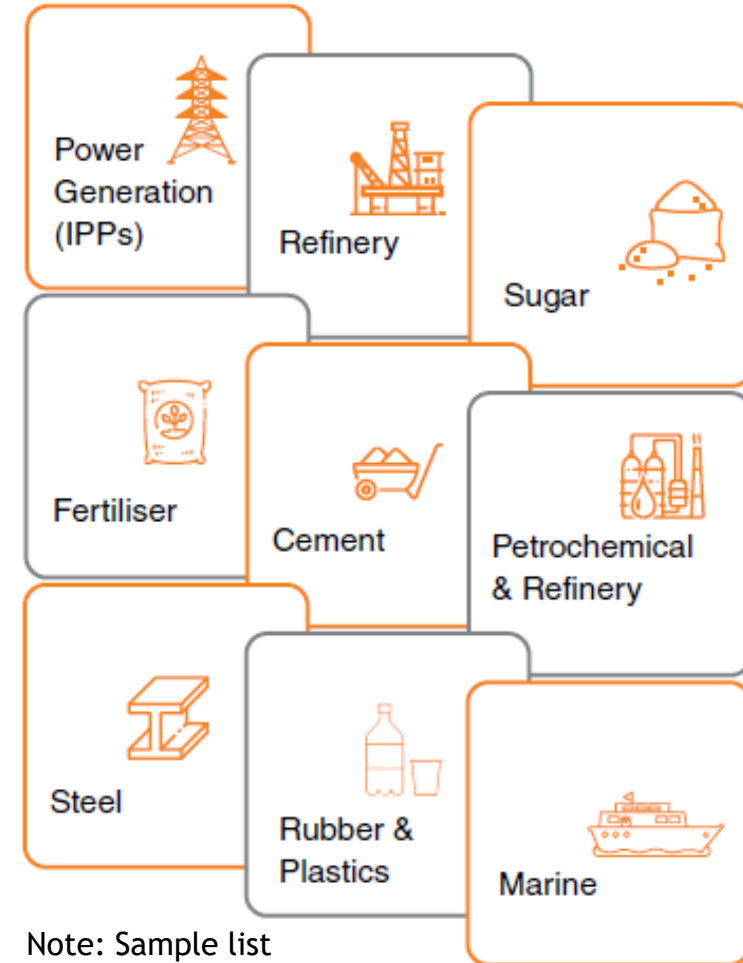
# POWER TRANSMISSION



# DIVERSE PRODUCT PORTFOLIO ADDRESSING A MULTITUDE OF INDUSTRIES

- High power & high speed gears designed for steam turbines, gas turbines, compressors, pumps, blowers, and other special purpose industry applications
- Niche low speed gearboxes for mini hydel turbines, steel mills, sugar mills, rubber mixers and extruders, cement mills, thermal plants, plastics etc.
- Marine gearing solutions
- Naval and Defence products
- Spares and Aftermarket solutions

## Industries We Serve Globally

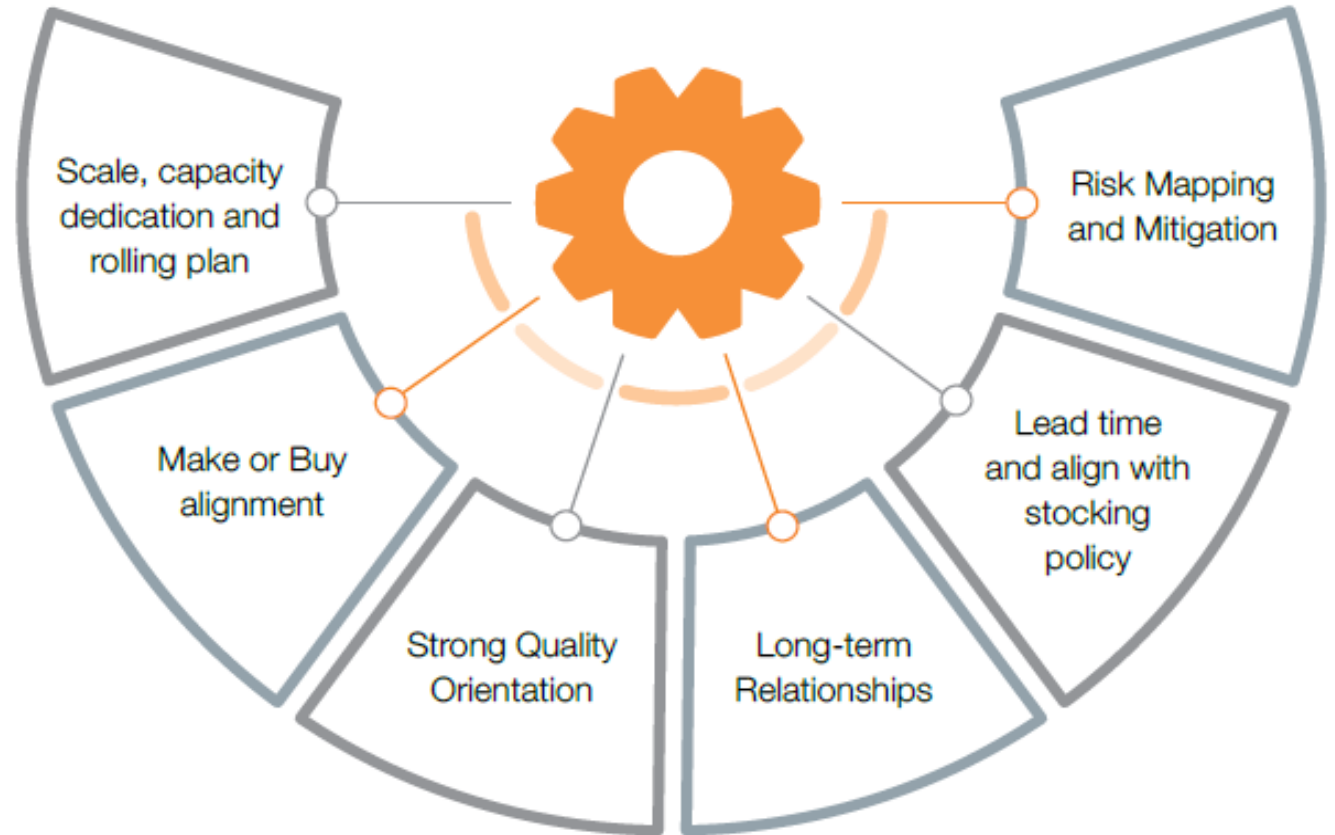


Note: Sample list

# MULTI-PRONGED STRATEGY IN POWER TRANSMISSION BUSINESS

## Pillars of our strategic approach:

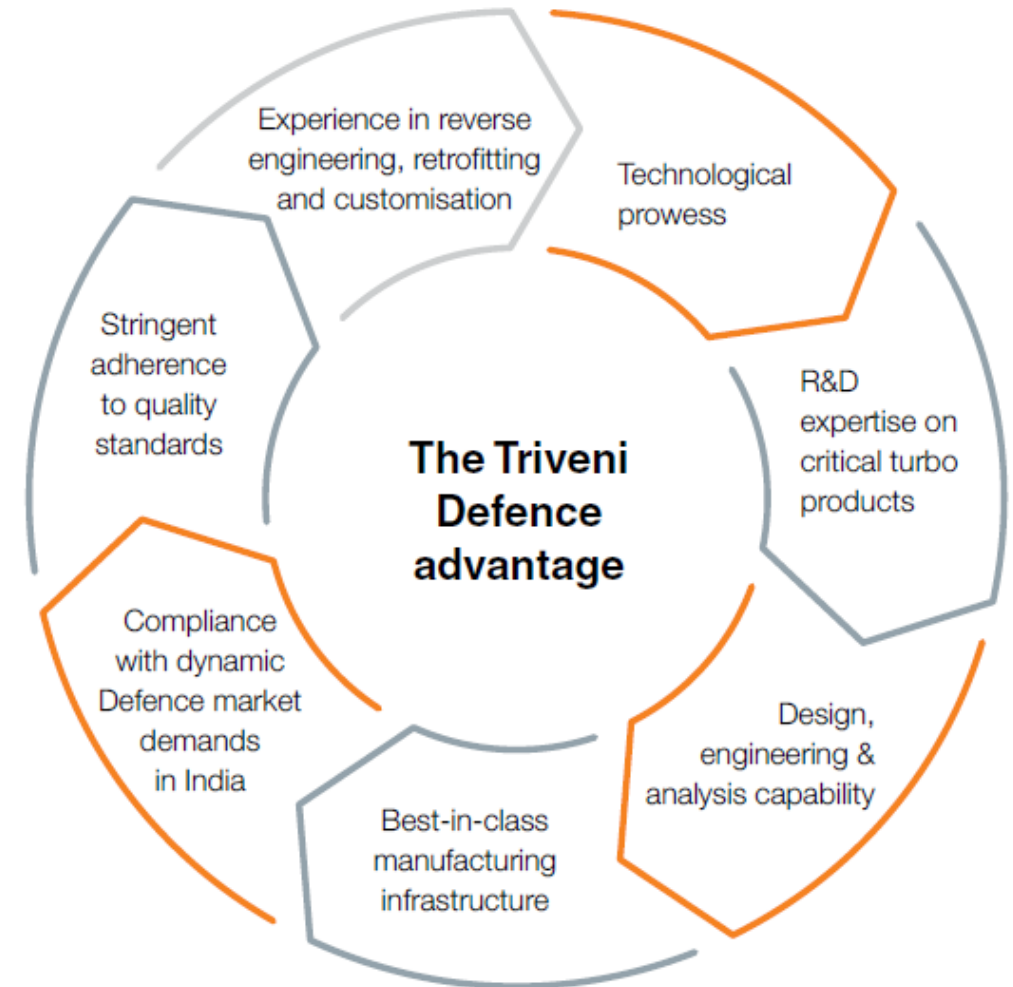
- World-class technology
- Automation & Digitalisation
- Associations & tie-ups
- Cost management & efficiencies



# FORAY INTO DEFENCE

## Our Defence Portfolio:

- Propulsion Gearboxes and other critical gearboxes
- Critical Turbo and Motor-driven Pumps
- Gas Turbine Generators for auxiliary power
- Steam Turbines to complex Turbo-Auxiliaries
- Fin Stabilisers
- Propulsion System Integration
- Propulsion Shafting
- Solutions for Steering Systems / Stabilisers



# POWER TRANSMISSION BUSINESS HIGHLIGHTS

- Among the largest engineered to order turbo gear manufacturer
- **Largest domestic market share across OEMs & Patronised by global OEMs across application spectrum like STG/GTG/ Compressor / Pumps / Blower / ID-FD Fans**
- **One of the few companies globally** catering to AGMA & API standards and supplying gearboxes to hazardous and sub-zero temperatures
- **Centred on Operational Excellence:** Integrated plant located in Mysuru, Karnataka with state of the art infrastructure
- **Industry leading Product delivery cycle:** Ranging from few weeks to 6 months for full gearboxes
- **Strong focus on value engineering, low cost manufacturing, R&D for new product and expertise in reverse engineering & replacement solutions**
- **Providing critical technology** and engineered solutions on multiple fronts to Indian Navy and Indian Defence industry



# OUR POWER TRANSMISSION BUSINESS INITIATIVES

## Ongoing:

- Ongoing expansion of power transmission business at an aggregate cost of ₹ 180 crore for setting up a new multi-modal facility, dedicated to Defence products; a new bay proposed to be set up along with a large grinder, hobber and other supporting machines & equipment for power transmission and defence products etc. to enhance the capacity from ₹ 250 crore to ₹ 400 crore

## Completed:

- Signed of a 10-year business agreement with GEAE Technology USA to locally manufacture the LM2500 gas turbine base and enclosure
- The Indian Navy has chosen Triveni as its reliable supplier of Turbo Alternator Turbines (TAT) and turbopumps, for the indigenous submarine programme



# POWER TRANSMISSION BUSINESS OUTLOOK

- Outlook for the domestic product segment within high speed gears is **extremely promising** as industrial CapEx in sectors like sugar, distillery, oil & gas, cement, steel is growing and have been supported by policies and robust economic growth
- **Focus on market share gains** in product segment, especially from the international market through greater promotion of our technology and focus on new and existing customer relationships.
- **Increasing footprint** to capture high-growth opportunities for Aftermarket segment through a combination of own efforts and expanding the agents' network
- In the **Defence segment, the business expects increased order booking** from key segments of Gas Turbines packaging, gearboxes and special application pumps where the key activities of qualifications and Request For Proposal (RFP) have progressed considerably in the last couple of years
- **Setting up of dedicated multi-nodal facility for Defence products** will also help the business gain confidence of key customers and expand its service offerings



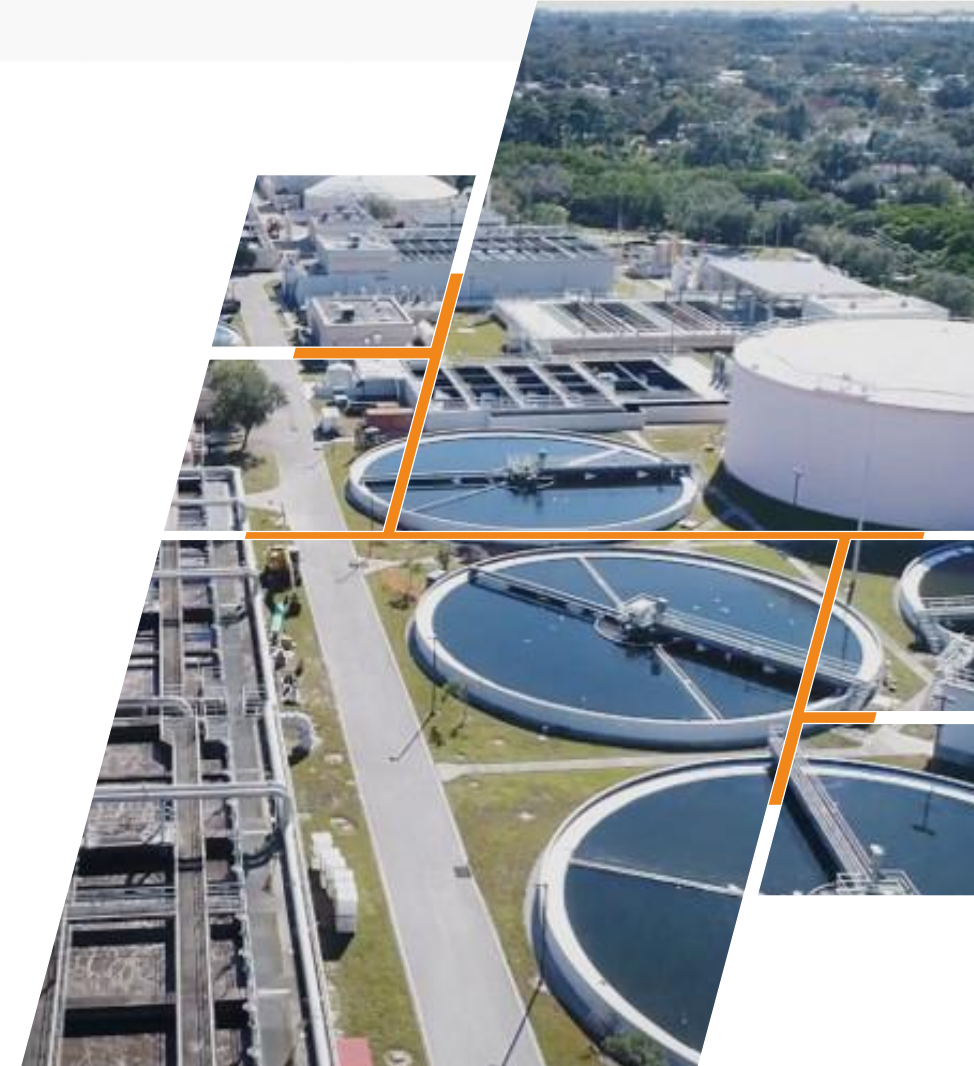


**WATER SOLUTIONS**



# WATER & WASTEWATER OPPORTUNITIES AND THE WAY FORWARD

- **Global water crisis:** Increased demand for water resources, more than 2 billion people globally live in water stressed countries. Situation is getting worse with climate change
- Water is undervalued, and proper incentives are not in place to use water resources efficiently
- Indian Government along with State Governments focusing on making country's water secure
- Surface wastewater discharge norms revised as per National Green Tribunal (NGT) order and high potential for rehabilitation of existing & new STP's
- Promulgation & promotion on PAN India Government policies to utilize tertiary treated water from sewage / effluent treatment plants
- Desalination being promoted in coastal regions of Tamil Nadu, Gujarat and water deficit coastal Regions



# WATER: TRIVENI'S CUSTOMISED AND SUSTAINABLE FUTURISTIC SOLUTIONS

## CUSTOMERS

- Industrial
- Municipal
- Specialized projects

## MODES OF OPERATION

- End-to-end Turnkey / EPC offerings
- Build, Own, Operate, Transfer (BOOT) model
- Private Public Partnership (PPP)

## TYPES OF PROJECTS

- Water treatment (Raw, Process, Desalination)
- Wastewater/Sewage treatment
- Recycling & zero liquid discharge
- Bio gas system with power generations
- Water/Wastewater Sludge treatment and management
- Water & wastewater network management
- Hybrid Annuity Model (HAM)
- Water treatment plants
- Oil Water separation





# WATER BUSINESS HIGHLIGHTS

- EPC solutions for water/wastewater treatment and recycling of water, for industrial and municipal applications
- ~10,000 Million Liters Per Day (MLD) water treated
- >2,000 process equipment supplied and commissioned
- Executed some of the largest projects in India





# SELECT ON GOING WATER & WASTEWATER PROJECTS

- Awarded the Pali HAM/PPP project
- Awarded an EPC Project in Bangladesh under a joint-venture with a local company
- Awarded the Bhiwadi 6 MLD Zero Liquid Discharge project
- 205 MLD STP (3 Phases) at Kondli based upon new NGT norms for Delhi Jal Board funded by JICA, under YAP(III) package K3
- 210 MLD WTP at Greater Noida for Greater Noida Industrial Development Authority
- Water & Sewerage system for 6 Islands in Maldives including RO for Govt Of Maldives funded by Exim Bank of India



# WATER & WASTEWATER DEVELOPMENTS AND THE WAY FORWARD

- After achieving success in Maldives and Bangladesh, **Water business is trying to expand activities** in overseas markets
- **Domestic market opportunities are increasing** in Recycle & Reuse of wastewater and water business is equipped to target this market.
- **Business is also exploring Public Private Partnership (PPP) opportunities** for Sewage Treatment Plant (STP) recycling on PPP format.
- **Municipal business opportunities are looking attractive** in many key states such as Karnataka, UP, Punjab, Delhi, Telangana, and Maharashtra.
- **Outlook is positive for EPC and HAM projects** driven by large investments by Governments, both at state level and at central. Market is witnessing increasingly more & more projects under Public Private Partnership (PPP) - HAM model and the Company would widely participate in this business segment.







**COMPANY  
OVERVIEW**



**OUR 5-YEAR  
JOURNEY**



**FINANCIAL  
RESULTS  
Q4/FY 23**

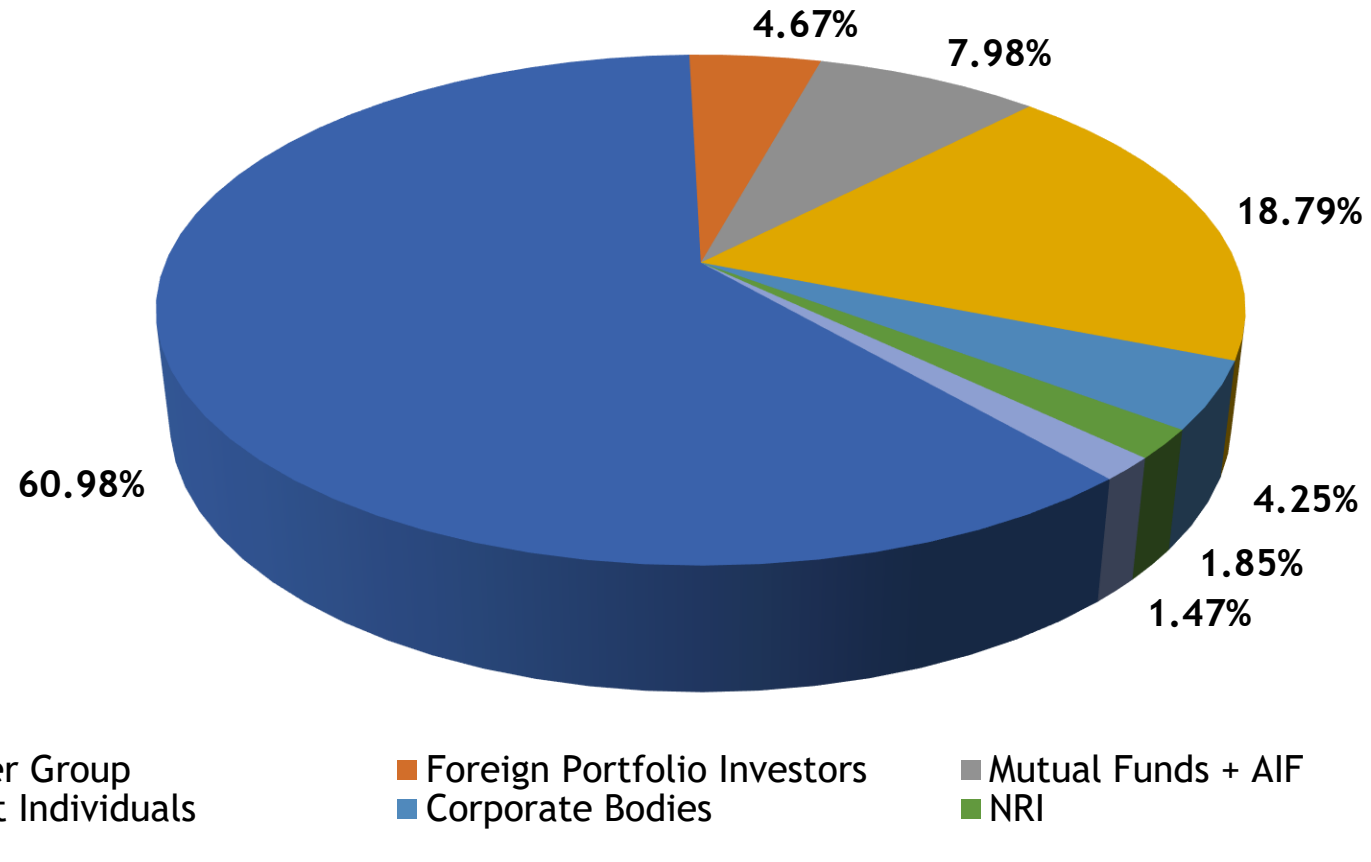


**BUSINESS-WISE  
UPDATE**



**SHAREHOLDING  
PATTERN**

# SHAREHOLDING PATTERN



Note: For the quarter ending March 31, 2023. Others comprise of Clearing members, HUF, Trust, IEPF, etc.

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A collage of four images: top-left shows a large industrial machine with gears; top-right shows a blue metal structure over a body of water; bottom-left shows a green field; bottom-right shows a large ship in a harbor. The text "INSPIRED ENGINEERING" is overlaid in white, bold, sans-serif font across the center of the collage.

**INSPIRED  
ENGINEERING**



## SAFE HARBOUR/LEGAL DISCLAIMER

Some of the statements in this presentation that are not historical facts are forward looking statements. These forward-looking statements include our financial and growth projections as well as statements concerning our plans, strategies, intentions and beliefs concerning our business and the markets in which we operate.

These statements are based on information currently available to us, and we assume no obligation to update these statements as circumstances change. There are risks and uncertainties that could cause actual events to differ materially from these forward-looking statements. These risks include, but are not limited to, the level of market demand for our services, the highly-competitive market for the types of services that we offer, market conditions that could cause our customers to reduce their spending for our services, our ability to create, acquire and build new businesses and to grow our existing businesses, our ability to attract and retain qualified personnel, currency fluctuations and market conditions in India and elsewhere around the world, and other risks not specifically mentioned herein but those that are common to industry.

Further, this presentation may make references to reports and publications available in the public domain. Triveni Engineering & Industries Ltd. makes no representation as to their accuracy or that the company subscribes to those views / findings.

# COMMONLY USED TERMS

Term	Definition
AGMA	American Gear Manufacturers Association (AGMA)
Alcohol	Colourless liquid produced by natural fermentation of sugary feedstocks and used as an intoxicating constituent of potable spirits, industrial solvent and as fuel
API	American Petroleum Institute
ASP	Activated Sludge Process
Bagasse	Cane fibre leaving cane mill after extraction of juice
B-Heavy Molasses	These are molasses produced from 2nd stage (B-massecuite) pan boiling during production of sugar
BNR	Biological Nutrient Removal
BOD	Biological oxygen demand
Cane development	Activities for improving quality and quantity of cane in sugarcane command area of factory
Cane yield	Cane produced per acre/hectare
C-Heavy Molasses	Also known as final molasses, blackstrap molasses, treacle. This is the end by-product of the processing in the sugar factory.
COD	Chemical oxygen demand
Co-product	Products of the sugar industry essentially e.g. bagasse, press cake, molasses, simultaneously produced during sugar production
Co-generation	Production of electricity and usable steam in same plant
CSR	Corporate Social Responsibility
DDGS	Distillers Dried Grain Solubles. A co-product of a grain ethanol facility which contains higher protein and is sold as an animal feed, poultry and swine feed.

# COMMONLY USED TERMS

Term	Definition
Denatured spirit	Ethanol that has additives to make it poisonous, bad tasting, foul smelling or nauseating to discourage its recreational consumption.
Distillation	Process of separating alcohol from water via evaporation and condensation
EBP	Ethanol Blended Petrol. The EBP programme seeks to achieve blending of ethanol with petrol with a view to reducing pollution, conserve foreign exchange and increase value addition in the sugar industry enabling them to clear cane price arrears of farmers.
EHS	Environment, Health & Safety
ENA	Extra Neutral Alcohol. Colourless food grade alcohol without any impurity, used in alcoholic beverages.
Fly ash	Fine solid particles of ashes, dust and soot carried out from burning fuel
Fuel grade ethanol or fuel ethanol	Ethanol used for blending in low concentration in gasoline
Grain distillery	Distillery producing Ethanol / Alcohol using grain as a feedstock. Starch available in grain is converted with enzymes to sugar and fermented with yeast to produce grain alcohol
GTG	Gas Turbine Generator
ID-FD	Induced Draft/Forced Draft
MBBR	Moving Bed Biofilm Reactor
MEE	Multi Effect Evaporator
MoEF & CC	Ministry of Environment, Forests & Climate Change
Molasses	A co-product/by-product of sugar manufacturing process used mainly for ethanol production

# COMMONLY USED TERMS

Term	Definition
Multi-feed distillery	Distillery producing Ethanol / Alcohol using various feedstocks such as sugarcane juice/syrup, grains, B-Heavy molasses, C-Heavy molasses
NGT	National Green Tribunal
O&M	Operations & Maintenance
Potable alcohol	Highly purified alcohol with very neutral odor and taste
Rectified spirit	Alcohol of 95% concentration which is used for Industrial purpose as well as for manufacturing Potable Alcohol & Ethanol
RO	Reverse Osmosis
SBR	Sequencing Batch Reactor
SLOP	Slop is the concentrated spent-wash which is an effluent generated during alcohol manufacturing in distilleries, which is used as fuel in incineration boilers
Steam cycle	A process in which steam is generated in a boiler, produced steam is expanded through a turbine to extract mechanical work, steam is condensed into water and water is feed to the boiler to produce steam.
STG	Steam Turbine Generator
STP	Sewage Treatment Plant
Sugarcane juice	Juice obtained from sugarcane after crushing it in mills
Sugarcane syrup	Sugar solutions of higher concentration obtained after evaporating water of juice in evaporators
WTP	Water Treatment Plant
ZLD	Zero Liquid Discharge

THANK YOU