

REF: TEIL:SE:	Date: 25 <sup>th</sup> July, 2023
BSE Limited	National Stock Exchange of India Limited
Phiroze Jeejeebhoy Towers	Exchange Plaza, C-1, Block G
Dalal Street, Fort,	Bandra Kurla Complex, Bandra (E)
Mumbai – 400 001	Mumbai – 400 051
Thru: BSE Listing Centre	Thru: NEAPS
Scrip Code: 532356	Symbol: TRIVENI
Sub: Investors' brief & Presentation	for Q1 FY24 ended June 30, 2023

Dear Sirs,

We send herewith a copy of Investors' brief & Presentation on the performance of the Company for the Q1 FY24 (consolidated) ended June 30, 2023 for your information. The same is also being made available on the Company's website <u>www.trivenigroup.com</u>.

Thanking you,

Yours faithfully, For Triveni Engineering & Industries Ltd.

No Blalle GEETA BHALLA

Group Vice President & Company Secretary M.No.A9475

Encl: As above



Registered office: A-44, Hosiery Complex, Phase-II Extension, Noida-201 305, Uttar Pradesh, India. Corporate office: Express Trade Towers, 8<sup>th</sup> floor, 15-16, Sector 16A, Noida 201301, Ph: 0120-4308000, Fax: 0120-4311011 CIN: L15421UP1932PLC022174

For immediate release

#### Q1 FY 24 Consolidated Results ended June 30, 2023

- Revenue from Operations (Net of excise duty) at ₹ 1197.9 crore
  - Profit before Tax at ₹ 91 crore, an increase of 2.6%
  - Profit after Tax at ₹ 67.6 crore, an increase of 1.7%
- Sugar & Alcohol (Distillery) Businesses
  - Achieved blended sugar realisation of ₹ 37,254/MT, an increase of 5.6% over corresponding previous period due to high export realisations and relatively firmer domestic realisations
  - Highest-ever quarterly Alcohol production of 5.04 crore litres, an increase of 19% over corresponding previous period due to additional capacities & expansions commissioned
  - Increase in net turnover of Alcohol business by 21% during Q1 FY 24, driven by higher distillation capacities
- Engineering Businesses
  - Power Transmission business reported robust revenue and profitability of ₹ 54.09 crore and ₹ 18.40 crore, registering growth of 77.8% and 109.8% respectively, over previous corresponding period
  - Order booking in Power Transmission grew 21.3% year-on-year, with an outstanding order book of
     ₹ 271.6 crore, up 11.6% year-on-year
  - Outstanding order book of ₹ 1,613 crore for combined Engineering Businesses

*Noida, July 25, 2023: Triveni Engineering & Industries Ltd.* ('Triveni'), one of the largest integrated sugar producers in the country, a dominant player in engineered-to-order high speed gears & gearboxes and a leading player in water and wastewater management business, today announced its financial results for the first quarter ended Jun 30, 2023 (Q1 FY 24). The Company has prepared the financial results based on the Indian Accounting Standards (Ind AS) and as in the past, has been publishing and analyzing results on a consolidated basis.

#### PERFORMANCE OVERVIEW: Q1 FY 24 (Consolidated Results)

			In ₹ crore
	Q1 FY 24	Q1 FY 23	Change %
Revenue from Operations (Gross)	1,432.26	1,361.48	5.2%
Revenue from Operations (Net of excise duty)	1,197.94	1,225.67	-2.3%
EBITDA	137.12	123.75	10.8%
EBITDA Margin	11.4%	10.1%	
Share of income from Associates	(0.03)	8.37	
Profit Before Tax (PBT)	91.00	88.68	2.6%
Profit After Tax (PAT)	67.61	66.45	1.7%
Other Comprehensive Income (Net of Tax)	0.47	-1.74	
Total Comprehensive Income	68.08	64.71	5.2%
EPS (not annualised) (₹/share)	3.09	2.75	12.3%

- Net turnover has declined by 2.3% in Q1 FY 24 primarily driven by lower turnover in the sugar business while the alcohol and aggregate engineering turnover improved over the previous corresponding period.
  - Sugar turnover declined 15.2% over the corresponding period last year after considering exports, driven by a 21.7% decline in domestic sales volumes due to lower domestic quota allocations. Sales volumes for the current quarter includes exports of 14,531 tonnes of sugar at remunerative prices, while there were no exports in previous corresponding period
  - Alcohol business turnover (net of excise duty) increased by 21.4% due to higher sales volumes driven by higher distillation capacities and increased activities in Indian Made Indian Liquor (IMIL).
  - Combined engineering turnover increased by 24.2% boosted by a 77.8% increase in Power Transmission business.
- Profit before tax (PBT) increased by 2.6% in Q1 FY 24 to ₹ 91 crore.
- The total debt on a standalone basis as on June 30, 2023 is ₹ 918.54 crore as compared to ₹ 824.96 crore as on March 31, 2023 and ₹ 1541.53 crore as on June 30, 2022. Standalone debt at the end of the quarter under review, comprises term loans of ₹ 281.16 crore, almost all such loans are with interest subvention or at subsidized interest rate. On a consolidated basis, the total debt is at ₹ 1011.07 crore as compared to ₹ 913.83 crore as on March 31, 2023 and ₹ 1617.68 crore as on June 30, 2022. Overall average cost of funds is at 6.71% during Q1 FY 24 as against 5.04% in the previous corresponding period.

Commenting on the Company's financial performance, Mr. Dhruv M. Sawhney, Chairman and Managing Director, Triveni Engineering & Industries Ltd, said:

"Overall performance of the Company during the quarter ended June 30, 2023 has been satisfactory. Alcohol and Engineering businesses contributed to 60% of the total segment results.

There had been general trends of low recovery in the just concluded Sugar Season 2022-23 but the Company has outperformed the state of Uttar Pradesh in the same, with a decline of 23 bps in recoveries (on C-heavy molasses basis).

In the Sugar business, we continue to focus on yield improvement initiatives by making our farmers adopt the best agricultural practices, through continual engagement with them and showing them the results in the demonstration plots which have been set up in each key area. It will be accompanied with increasing crush capacities progressively in sync with increased sugarcane availability. The Company is also in the process of increasing its refined sugar production to ~70% (up from ~60% currently) by changing the manufacturing process at its sugar unit in Milak Narayanpur. Activities previously announced pertaining to modernisation, debottlenecking and efficiency improvements are progressing well. The condition of the sugarcane crop and the rainfall so far has been satisfactory in the catchment areas of our sugar mills but the continuance of good climatic conditions in the subsequent period are critical for the performance in the forthcoming season. We are also embarking on digitization of sugarcane activities to increase productivity and our response time to the issues requiring immediate action.

In the Alcohol business, we have been a strong supporter of the Government's Ethanol Blended Petrol (EBP) programme and have actively bolstered our capacities while keeping pace with the expanding range of feedstocks for bio-ethanol production. We successfully raised our distillation capacity from 320 KLPD in FY 22 to an impressive 660 KLPD presently. Looking ahead, we are ambitiously planning to further expand our capacity to 1110 KLPD.

Our Engineering businesses continue to perform well with healthy order books and enquiry pipelines. In the Power Transmission business, the demand for high-speed gear solutions is witnessing a significant upswing in recent times in industries across various sectors, such as, steel, oil & gas, petrochemicals, etc. as these are seeking advanced and efficient power transmission solutions to optimise their operations. In the Water business, the demand for reliable water and wastewater treatment solutions is on the rise both in India and in International markets. Apart from participating in domestic projects, we are aiming to expand our global footprint, establish strategic partnerships, and foster mutually beneficial relationships with key stakeholders.

At Triveni, we have strategically positioned ourselves to capitalise on emerging opportunities in both domestic and international markets in our various businesses. And as we forge ahead, our unwavering dedication to delivering exceptional value to our stakeholders remains at the core of our business strategy"

#### Q1 FY 24: BUSINESS-WISE PERFORMANCE REVIEW

(all figures in ₹ crore, unless otherwise mentioned)

#### **Sugar business**

Triveni is one of the largest integrated sugar producers in the country, with seven state-of-the-art FSSC 22000 certified sugar manufacturing facilities located in the state of Uttar Pradesh.

#### **Performance**

	Apr-Jun 2023	Apr-Jun 2022	Change (%)	Sugar Season 2022-23	Sugar Season 2021-22	Change (%)
Sugarcane Crush (Million Tonnes)	1.58	1.80	-12.5%	9.33	8.41	10.8
Net Recovery (%)	10.58	10.47		10.23	10.55	
Sugar Production (Tonnes)	166817	188585	-11.5%	953436	887171	7.5

	Q1 FY 24	Q1 FY 23	Change %
Sugar Dispatches (Tonnes)			
- Domestic	187522	239540	-21.7
- Exports	14531	-	
- Total	202053	239540	-15.6
Average Blended Realisation (₹/MT)*	37254	35293	5.6
Revenue (₹ crore)	892.33	1051.69	-15.2
PBIT (₹ crore)	49.55	53.29	-7.0

\*including export realisations

- Lower turnover in the Sugar business of 15.2% due to lower domestic dispatches as compared to previous corresponding year. It has led to lower segment results (PBIT) by 7%
- The contribution of sugar sold in Q1 FY 24 was higher by ₹ 880/tonne over the previous quarter in view of higher sugar realisation prices (including exports).
- During the quarter, achieved sugar exports of 14531 tonnes out of total export quota of 204868 tonnes (190337 tonnes achieved in FY 23) and export realisations were at a considerable premium to the domestic prices further contributing to the profitability
- The sugar inventory as on June 30, 2023 was 43.44 lakh quintals, which is valued at ₹ 33.6/kg.
- Co-generation operations (including incidental co-generation) achieved external sales of ₹ 12.65 crore during Q1 FY 24 as against ₹ 16.91 crore in Q1 FY 23.

#### Industry Scenario – Domestic

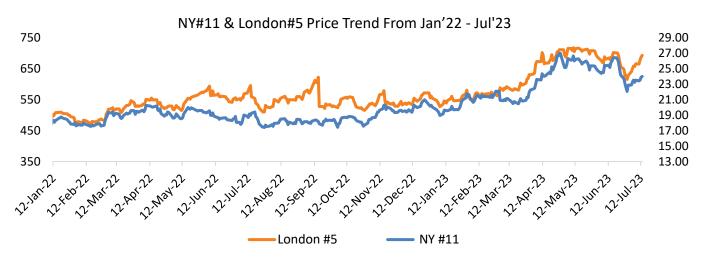
- ISMA estimates all-India sugar production for SS 2022-23 at 32.8 million tonnes after considering diversion of about 4.0 million tonnes of sugar equivalent into ethanol.
- As on June 30, 2023 the all-India sugar production for the season reached 32.3 million tonnes with 11 mills in operation.
- As of end of June 2023, Uttar Pradesh produced 10.5 million tonnes of sugar as compared to 10.2 million tonnes at the same time last year while Maharashtra's production declined from 13.7 million tonnes last year to 10.5 million tonnes at end of June 2023 due to unexpectedly lower sugarcane yields owing to higher ratoon crop share and uneven distribution of rainfall.
- In Karnataka, three mills had restarted their operations for the special season and the State had collectively produced 5.5 million tonnes of sugar as compared to 5.83 million tonnes produced last year same period.
- Earlier in the year, GOI had announced an initial export quota of 6.00 million tonnes, followed by another announcement of additional quota of 0.15 million tonnes taking the total approved export quota to 6.15 million tonnes with option to swap one's quota. Till June 30, 2023 nearly all of the approved quota was physically exported out of the country.
- For North India and the state of Uttar Pradesh, rainfall during this monsoon season, in the first half of July, has been significantly higher than last year, which is likely to aid the sugarcane crop growth. There is also an apprehension of a mild EL Nino which may occur.
- Sugar balance sheet: As per recent estimates that with an opening balance as on October 1, 2022 of around 7.0 million tonnes, sugar production for SS 2022-23 of around 32.8 million tonnes, domestic sales of around 27.5 million tonnes and 6.15 million tonnes of sugar exports, the closing stock is expected at 6.0 million tonnes.

#### Industry Scenario – International

- Global Sugar Balance Sheet now pointing to surplus for SS 2022-23: According to International reports, in view of the higher production estimates from Brazil, the global 2022-23 sugar balance is now estimated at a surplus of 0.8 million tonnes as compared to the earlier expectation of deficit of 2 million tonnes. For sugar season 2023-24, in view of the global demand/supply situation, a surplus of 4.9 million tonnes is expected.
- Bumper sugarcane crop and sugar production expected in Brazil: For the 2023-24 season that commenced in April, Centre South Brazil has crushed ~210 million tonnes of sugarcane, up 11% and produced 12.23 million tonnes of sugar, up 25% from the year before. Sugar mix for the region has improved from 42.6% in the previous year to 47.7% till June. With higher than expected agricultural yields, International reports estimate sugarcane

availability for the 2023-24 season (April-March) at 612 million tonnes and sugar production of 38.8 million tonnes.

- Thailand sugar production expected to remain subdued: International reports estimate a 10% year-on-year drop in 2023-24 sugarcane crush in Thailand to 85 million tonnes and sugar production of 9.8 million tonnes, a sharp cut of 1.2 million tonnes from earlier estimates owing to El Nino which has led to droughts in many regions despite the start of monsoon season.
- International sugar prices continue to remain firm: The 2023 NY #11 raw sugar futures nearly broke the US 27.00 cents/lb threshold earlier in the year, however has reported a mixed trend later during this quarter. Overall, prices hovered around US 25 cents/lb this quarter while the lowest prices were noticed during the end July contracts to the level of almost US 25 cents/lb. As on July 21, 2023 the NY #11 front month contract was trading around US 24.5 cents/lb. London #5 prices were also at record levels and kept inching upwards during the first half of this quarter, however fell sharply in June. Prices have since recovered and were at \$686.50 tonne on July 21, 2023.



Note: London #5 on left hand side (LHS) in \$/tonne; NY #11 on right hand side (RHS) in US cents/lb

#### **Alcohol (Distillery) business**

The Company has state-of-the-art distilleries spread across Muzaffarnagar (MZN) – 2 facilities, Sabitgarh (SBT) and Milak Narayanpur (MNP) in Uttar Pradesh aggregating to 660 KLPD. These facilities have the capability to produce Ethanol, Extra Neutral Alcohol (ENA), Rectified Spirit (RS) and Denatured Spirit (SDS). The Company utilises a mix of sugarcane-based feedstocks as well as grain. Dried Distillers Grain with Solubles (DDGS), a co-product produced on grain operations is also sold to premium Institutions and has been well accepted in market. The Company also manufactures Indian Made Indian Liquor (IMIL).

#### **Performance**

	Q1 FY 24	Q1 FY 23	Change %
Operational details			
Production (KL)	50446	42273	19.3
Sales (KL)	42457	38902	9.1
Avg. Realization (₹/ ltr)	56.96	57.80	-1.5
IMIL Sales (Lakh Cases)	11.26	6.56	71.6
Financial details			
Gross Revenue (₹ crore)	529.78	379.23	39.7
Revenue Net of Excise Duty (₹ crore)	295.46	243.42	21.4
PBIT (₹ crore)	51.02	49.84	2.4

- Additional capacities commissioned in FY 23 resulting in highest-ever production in a quarter
- Despite having record alcohol production and orders in hand, alcohol sales during the quarter under review were lower than expected due to offtake issues at the end of Oil Marketing Companies (OMC) at certain depots. However, these were temporary challenges and the situation has since improved.
- During the quarter, alcohol produced from sugarcane-based feedstocks formed 64% of the total sales volumes, with sales of ethanol made from B-heavy molasses at 56%.
- Alcohol sales from grains constituted 36% in the current quarter whereas there were no grain operations during the previous corresponding quarter. Accordingly, overall profit margin was lower in the current quarter as the margin associated with the grain operations is lower than B-heavy molasses.
- Ethanol constituted 91% of alcohol sales during Q1 FY 24 as compared to 95% in the corresponding period last year

#### **Domestic Industry Scenario**

- Out of the 559.08 crore liters finalised by the OMCs for the Ethanol Supply Year 2022-23 (Dec-Oct) against a total requirement of 600.0 crore liters, contracts for 553.68 crore liters have been contracted till Jul 9, 2023.
- Against the above, 351.15 crore liters have been lifted by the OMCs till Jul 9, 2023.
- The average blending percentage is 11.75% till Jul 9, 2023.
- Of the total contracted quantity of 553.68 crore liters, sugarcane-based feedstocks collectively contribute the highest at 71% with B-Heavy molasses, Sugarcane Juice and C-Heavy molasses accounting for 45%, 25% and 1% respectively. Grain-based feedstocks such as surplus rice and damaged food grain contribute to 26% and 4% respectively.
- Presently, Food Corporation of India has suspended supplies of Surplus Rice for the purpose of production of ethanol.

#### **Power Transmission Business**

This business based at Mysuru involves manufacturing of high-speed gears and gearboxes up to 70MW capacity with speeds of 70,000 rpm and Defence products and solutions for the Navy.

#### **Performance**

	Q1 FY 24	Q1 FY 23	Change %
Revenue (₹ crore)	54.09	30.43	77.8
PBIT (₹ crore)	18.40	8.77	109.8
Order Booking (₹ crore)	65.37	53.89	21.3
Closing Order Book (₹ crore)*	271.63	243.39	11.6

#### \*including long duration orders

- Increase in Q1 FY 24 turnover and profitability by 77.8% and 109.8% respectively driven by product sales across OEMs.
- Strong export performance in supply of API gearboxes to the Americas and Europe; compressor gears to China and Europe
- Profitability margins improved to 34.0% in Q1 FY 24 as compared to 28.8% in the corresponding period last year due to lower raw material costs and cost optimisation of SG&A expenses.
- The growth in order book during the quarter is driven by growth witnessed across key sectors such as steel, oil & gas and customer segments such as steam turbines, compressors, pumps.
- The outstanding order book as on June 30, 2023 stood at ₹ 271.63 crore including long duration orders of ₹ 123.84 crore.

#### <u>Outlook</u>

- Domestic product segment is gaining momentum across key sectors
- Infrastructure growth providing stimulus for expansion of Steel and Cement for Waste Heat Recovery (WHR)
- Domestic Oil & Gas sector is doubling the refining capacity by 2030 leading to gearbox requirements for Steam Turbines, Gas Turbines, Pumps and Compressors
- Steam Turbine Generator (STG) market is expected to grow in the smaller power range for Sugar and Distillery sector
- Growing potential in the Waste-to-Energy (WtE) through agricultural and municipal waste
- 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, propulsion 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-modal facility for Defence products will also help the business gain confidence of key customers and expand its service offerings

#### Water business

This business is focused on providing world-class solutions in water and wastewater treatment to customers in industrial and municipal segments. This business is gaining faster momentum and is getting recognition in a high potential market as a supplier of superior quality products and services at competitive costs.

#### **Performance**

	Q1 FY 24	Q1 FY 23	Change %
Revenue (₹ crore)	64.72	65.26	-0.8
PBIT (₹ crore)	3.00	2.55	17.6
Orders Received (₹ crore)	11.47	176.79	-93.5
Closing Order Book (₹ crore)*	1,341.06	1645.47	-18.5

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

- The above 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.
- Revenues declined marginally due to delay in execution in certain projects
- The business is actively targeting foreign projects wherever it possesses the pre-qualifications and funding is ensured through multilateral and reputed agencies
- The outstanding order book as on Jun 30, 2023 stood at ₹ 1341.06 crore, which includes ₹ 905.79 crore towards
   O&M contracts for a longer period of time

#### <u>Outlook</u>

- 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 states
- 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.

#### Attached: Details to the Announcement and Results Table

#### About Triveni Engineering & Industries Limited

Triveni Engineering & Industries Limited (TEIL) is a diversified industrial conglomerate having core competencies in the areas of sugar, alcohol, power transmission and water. The Company holds the position of one of India's largest integrated sugar manufacturers and one of the largest ethanol manufacturers, while making significant contributions in Power Transmission and in Water & Wastewater treatment solutions. TEIL currently has seven sugar mills in operation at Khatauli, Deoband, Sabitgarh, (all in western Uttar Pradesh), Chandanpur, Rani Nangal and Milak Narayanpur (all in central Uttar Pradesh) and Ramkola (eastern Uttar Pradesh). While the Company's Power Transmission (Gears) manufacturing facility is located at Mysuru, the Water & Wastewater treatment business is located at Noida. The Company currently operates 6 co-generation power plants located across five sugar units, with 104.5 MW grid connected co-generation capacity.

The Company has state-of-the-art distilleries spread across Muzaffarnagar (MZN) – 2 facilities, Sabitgarh (SBT) and Milak Narayanpur (MNP) in Uttar Pradesh aggregating to 660 KLPD. These facilities have the capability to produce Ethanol, Extra Neutral Alcohol (ENA), Rectified Spirit (RS) and Denatured Spirit (SDS). The Company utilises a mix of sugarcane-based feedstocks as well as grain. Dried Distillers Grain with Solubles (DDGS), a co-product produced on grain operations is also sold to premium Institutions and has been well accepted in market. The Company also manufactures Indian Made Indian Liquor (IMIL).

The Company produces premium quality multi-grade crystal sugar, raw (as per the market/export requirements), refined and pharmaceutical sugar. All of the Sugar units are FSSC 22000 certified. The sugar is supplied not only to household consumers but also to bulk consumers. The Company has supply chain relationship with leading multinational beverage, food & FMCG companies, pharmaceutical companies and leading confectionery producers. It also has a strong presence in branded sugar market through its brand "Shagun".

The Company is a dominant market player in the engineered-to-order turbo gearbox manufacturer in India. The Power Transmission business has 3 different business segments – Gears, Defence, Built to Print. It delivers robust and reliable Gears solutions which cover a range of applications and industries to meet the ever-changing operating conditions and customers' requirements. The Company has become a dominant supplier to all major OEMs in the country, offering solutions to all industrial segments including Oil and Gas as per AGMA, API-613 and API-677 standards. It is amongst the market leaders in high-speed Gears and Gearboxes up to 70 MW capacity and speed of 70,000 rpm. The major product portfolio includes steam turbines, gas turbines and compressor gearboxes under the High-Power High-Speed segment. In the Low-Speed segment, the Company focuses on the gearboxes used in applications such as reciprocating pumps and compressors, hydel turbines, mill and extruder drives for metal, sugar, rubber and plastic industries, marine applications, etc. Its robust and reliable products are backed by 360-degree service solutions which minimise the downtime for its customers. The Company provides health monitoring services for all types of critical gearboxes, high-speed and low-speed, as well as maintains an inventory of dimension ready sites for immediate solution.

The Company provides complete and sustainable water technology solutions across the water usage segments. Advanced Solutions offered for total water management include turnkey / EPC, customer care, operations and maintenance, life cycle models such as Design, Build Own & Operate (DBOO), Design, Build Own Operate and Transfer (DBOOT), BOOT, equipment supply for unit processes like screening, grit separation, clarification and sludge handling. The Customer Care Division offers value added services for operation management and performance optimisation. The quality service offerings are tailored to customers' requirements, which in many cases form an integral part of the main contract - operations and maintenance, annual maintenance contracts, product & process audit, health check-up and overhauling, pilot experiments, refreshment, upgradation and automation of existing plants, spares and service consumables and chemicals and on-site training and assistance.

Triveni Brands is the FMCG Division of the Company which currently constitutes Shagun Sugar, Triveni Sugar and the Private Label Business. The mission of this division is to create innovative and high-quality products that delight customers. Our products have a strong omni-channel strategy and we are committed to growing in a sustainable manner while keeping customer at the very center.

As a result of a Scheme of Arrangement, the Company's steam turbine division was demerged into one of its wholly owned subsidiaries, Triveni Turbine Limited (TTL), and was listed on the NSE and BSE in 2011. The Company owned 21.85 of TTL's equity, until September 21, 2022 when the entire stake was divested with net proceeds of ₹ 1,593 crore.

For further information on the Company, its products and services please visit www.trivenigroup.com

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#### Note:

Certain statements in this document may be forward-looking statements. Such forward-looking statements are subject to certain risks and uncertainties like government actions, local political or economic developments, technological risks, and many other factors that could cause our actual results to differ materially from those contemplated by the relevant forward-looking statements. Triveni Engineering & Industries Ltd. will not be in any way responsible for any action taken based on such statements and undertakes no obligation to publicly update these forward-looking statements to reflect subsequent events or circumstances.

Regd. Office : A-44, Hosiery Complex, Phase-II Extension, Noida, Uttar Pradesh - 201 305 Corp. Office : 8th Floor, Express Trade Towers, 15-16, Sector-16A, Noida, Uttar Pradesh - 201 301 CIN : L15421UP1932PLC022174

#### Statement of Standalone Unaudited Financial Results for the Quarter ended June 30, 2023

		Year ended		
Particulars	30/Jun/2023 (Unaudited)	31/Mar/2023 (Audited) (refer note 4)	30/Jun/2022 (Unaudited)	31/Mar/2023 (Audited)
1 Revenue from operations	143158	181770	136043	630690
2 Other income	799	1730	825	7915
Total income	143957	183500	136868	638605
3 Expenses				
(a) Cost of materials consumed	71348	183280	68904	395153
(b) Purchases of stock-in-trade	1284	1272	1289	4624
<ul> <li>(c) Changes in inventories of finished goods, stock-in-trade and work-in-progress</li> </ul>	12415	(79771)	22422	8872
(d) Excise duty on sale of goods	23432	23573	13581	69326
(e) Employee benefits expense	8630	9850	7767	34702
(f) Finance costs	1868	789	2013	4984
(g) Depreciation and amortisation expense	2526	2447	2179	9348
(h) Other expenses	13478	17134	10749	56277
Total expenses	134981	158574	128904	583286
4 Profit/(loss) from continuing operations before exceptional items and tax	8976	24926	7964	55319
5 Exceptional items (net) - income/ (expense)	-	-	-	158594
6 Profit/(loss) from continuing operations before tax	8976	24926	7964	213913
7 Tax expense (a) Current tax	2000	5004	1000	
(b) Deferred tax	2089	5304	1822	19680
Total tax expense	226 2315	664	185	1832
8 Profit/(loss) from continuing operations after tax	6661	5968 18958	<u>2007</u> 5957	21512
	0001	10950	5957	192401
<ul><li>9 Profit/(loss) from discontinued operations</li><li>10 Tax expense of discontinued operations</li></ul>	-	-	-	-
11 Profit/(loss) from discontinued operations (after tax)	-		-	-
12 Profit/(loss) for the period	6661	- 18958		-
13 Other comprehensive income	0001	10950	5957	192401
A (i) Items that will not be reclassified to profit or loss	-	(485)	-	(232)
A (ii) Income tax relating to items that will not be reclassified to profit or loss	-	(122)	-	(58)
B (i) Items that will be reclassified to profit or loss	63	151	(196)	(194)
B (ii) Income tax relating to items that will be reclassified to profit or loss	16	38	(50)	(49)
Other comprehensive income for the period, net of tax	47	(250)	(146)	(319)
14 Total comprehensive income for the period	6708	18708	5811	192082
15 Paid up equity share capital (face value ₹ 1/-)	2189	2189	2418	2189
16 Other equity				263750
17 Earnings/(loss) per share of ₹ 1/- each (not annualised)				2001.00
(a) Basic (in ₹)	3.04	8.04	2.46	80.08
(b) Diluted (in ₹)	3.04	8.04	2.46	80.08

See accompanying notes to the standalone financial results

#### Standalone Unaudited Segment wise Revenue, Results, Assets and Liabilities for the Quarter ended June 30, 2023

		3 Months ended		(₹ in lakhs) Year ended	
Particulars	30/Jun/2023 (Unaudited)	31/Mar/2023 (Audited) (refer note 4)	30/Jun/2022 (Unaudited)	31/Mar/2023 (Audited)	
1 Segment Revenue					
(a) Sugar & Allied Businesses					
Sugar	89233	117092	105169	436195	
Distillery	52978	59184	37923	186553	
	142211	176276	143092	622748	
(b) Engineering Businesses Power transmission	F 100	5010	2010		
Water	5409	7318	3043	2252	
water	6404 11813	11422 18740	6421 9464	3489	
				5742	
(c) Others	3770	4191	4028	1593	
Total Segment revenue	157794	199207	156584	69610	
Less : Inter segment revenue	14636	17437	20541	65412	
Total Revenue from operations	143158	181770	136043	630690	
2 Segment Results					
(a) Sugar & Allied Businesses					
Sugar	4955	16389	5329	3058	
Distillery	5102	6516	4984	21232	
	10057	22905	10313	5181	
(b) Engineering Businesses				0101	
Power transmission	1840	2553	877	764	
Water	378	1047	197	2559	
	2218	3600	1074	1020	
(c) Others	(36)	(157)	(278)	(80)	
Total Segment results	12239	26348	11109	6121	
Less :	12207	20340	11109	0121.	
(i) Finance costs	1868	789	2013	4984	
(ii) Exceptional items (net) - (income)/expense	-	-	-	(158594	
(iii) Other unallocable expenditure net of unallocable income	1395	633	1132	914	
Total Profit/(loss) before tax	8976	24926	7964	213913	
3 Segment Assets					
(a) Sugar & Allied Businesses					
Sugar	254320	264700	246156	264700	
Distillery	89429	88468	80564	88468	
(h) Engineering Projector	343749	353168	326720	353168	
(b) Engineering Businesses Power transmission	20653	21071	10/5/	0107	
Water	37704	40087	13656 32924	21071	
	58357	61158	46580	40087	
(c) Others	1314				
		1123	1413	1123	
Total Segment assets	403420	415449	374713	415449	
Add : Unallocable assets Total Assets	20239	19121	15724	19121	
10tal Assets	423659	434570	390437	434570	
4 Segment Liabilities					
(a) Sugar & Allied Businesses					
Sugar	10630	36871	11895	36871	
Distillery	7767	6953	5617	6953	
	18397	43824	17512	43824	
(b) Engineering Businesses					
Power transmission	6226	5711	3749	5711	
Water	16638	20095	16377	20095	
	22864	25806	20126	25806	
(c) Others	562	592	661	592	
Total Segment liabilities	41823	70222	38299		
Add : Unallocable liabilities	109189	98409	168906	70222 98409	
Total Liabilities	151012	168631	207205	168631	

#### Notes to the Standalone Unaudited Financial Results for the Quarter ended June 30, 2023

- 1. The above financial results have been prepared in accordance with the principles and procedures of the Indian Accounting Standards ('Ind AS') notified under section 133 of the Companies Act, 2013 [Companies (Indian Accounting Standards) Rules, 2015 (as amended)].
- 2. In view of the seasonality of the Sugar Business, the performance results may vary from quarter to quarter.
- 3. During the quarter, the Company has incorporated a new joint venture company namely Triveni Sports Private Limited. The Company owns 50% equity stake in the joint venture company, the balance being owned by Triveni Turbine Limited.
- 4. The figures for the quarter ended March 31, 2023 are the balancing figures between the audited figures in respect of the full financial year ended on that date and published year to date figures upto the third quarter of the said financial year.
- 5. The above financial results have been reviewed and recommended for adoption by the Audit Committee and approved by the Board of Directors of the Company at their respective meetings held on July 25, 2023. The statutory auditors have carried out a limited review of the above financial results.

For Triveni Engineering & Industries Limited

Place : Noida Date : July 25, 2023

Dhruv M. Sawhney Chairman & Managing Director

Regd. Office : A-44, Hosiery Complex, Phase-II Extension, Noida, Uttar Pradesh - 201 305 Corp. Office : 8th Floor, Express Trade Towers, 15-16, Sector-16A, Noida, Uttar Pradesh - 201 301 CIN : L15421UP1932PLC022174

#### Statement of Consolidated Unaudited Financial Results for the Quarter ended June 30, 2023

	(*****	3 Months ended		Year ended	
Particulars	30/Jun/2023 (Unaudited)	31/Mar/2023 (Audited) (refer note 5)	30/Jun/2022 (Unaudited)	31/Mar/2023 (Audited)	
1 Revenue from operations	143226	181829	136148	631010	
2 Other income	1221	2157	986	8041	
Total income	144447	183986	137134	639051	
3 Expenses					
(a) Cost of materials consumed	71348	183280	68904	395153	
(b) Purchases of stock-in-trade	1284	1272	1289	4624	
<ul> <li>(c) Changes in inventories of finished goods, stock-in-trade and work-in-progress</li> </ul>	12415	(79771)	22422	8872	
(d) Excise duty on sale of goods	23432	23573	13581	69326	
(e) Employee benefits expense	8669	9887	7799	34828	
(f) Finance costs	2083	980	2165	5674	
(g) Depreciation and amortisation expense	2526	2447	2179	9348	
(h) Other expenses	13587	17261	10764	56615	
Total expenses	135344	158929	129103	584440	
4 Profit/(loss) from continuing operations before share of profit/(loss) of associates and joint ventures, exceptional items and	9103	25057	8031	54611	
tax 5 Share of profit/(loss) of associates and joint ventures	(3)		837	1633	
<ul> <li>6 Profit/(loss) from continuing operations before exceptional items and tax</li> </ul>	<u> </u>	25057	8868	56244	
7 Exceptional items (net) - income/(expense)	-		_	140120	
8 Profit/(loss) from continuing operations before tax	9100	25057	8868	196364	
9 Tax expense				170001	
(a) Current tax	2113	5330	1827	19741	
(b) Deferred tax	226	696	396	(2557	
Total tax expense	2339	6026	2223	17184	
10 Profit/(loss) from continuing operations after tax	6761	19031	6645	179180	
11 Profit/(loss) from discontinued operations	-	-	-	-	
12 Tax expense of discontinued operations	-		-	-	
13 Profit/(loss) from discontinued operations (after tax)	-	-	-	-	
14 Profit/(loss) for the period	6761	19031	6645	179180	
Profit/(loss) for the period attributable to :					
(i) Owners of the Company	6761	19031	6645	179180	
(ii) Non-controlling interests 15 Other comprehensive income		-	-	-	
A (i) Items that will not be reclassified to profit or loss	-	(485)	-	(232	
A (ii) Income tax relating to items that will not be reclassified to profit or loss	_	(122)	-	(58	
B (i) Items that will be reclassified to profit or loss	63	151	(232)	(256	
B (ii) Income tax relating to items that will be reclassified to profit or loss	16	38	(58)	(55	
Other comprehensive income for the period, net of tax	47	(250)	(174)	(375	
Other comprehensive income for the period, net of tax attributable to:					
<ul><li>(i) Owners of the Company</li><li>(ii) Non-controlling interests</li></ul>	47	(250)	(174)	(375	
16 Total comprehensive income for the period	6808	18781	6471	178805	
Total comprehensive income for the period attributable to: (i) Owners of the Company					
(ii) Non-controlling interests	6808	18781	6471	178805	
	-	-	-	-	
<ul> <li>17 Paid up equity share capital (face value ₹ 1/-)</li> <li>18 Other equity</li> </ul>	2189	2189	2418	2189	
18 Other equity				264336	
19 Earnings per share of ₹ 1/- each (not annualised) (a) Projecting ₹)					
(a) Basic (in $\mathfrak{X}$ )	3.09	8.08	2.75	74.58	
(b) Diluted (in ₹)	3.09	8.08	2.75	74.58	

See accompanying notes to the consolidated financial results

Consolidated Unaudited Segment wise Revenue, Results, Assets and Liabilities for the Quarter ended June 30, 2023

		3 Months ended			
Particulars	30/Jun/2023 (Unaudited)	31/Mar/2023 (Audited) (refer note 5)	30/Jun/2022 (Unaudited)	Year ended 31/Mar/2023 (Audited)	
1 Segment Revenue (a) Sugar & Allied Businesses					
Sugar	89233	117092	105169	43619	
Distillery	52978	59184	37923	186553	
,	142211	176276	143092	62274	
(b) Engineering Businesses					
Power transmission	5409	7318	3043	2252	
Water	6472	11480	6526	3521	
	11881	18798	9569	5774	
(c) Others	3770	4191	4028	1593	
Total Segment revenue	157862	199265	156689	69642	
Less : Inter segment revenue	14636	17436	20541	6541	
Total Revenue from operations	143226	181829	136148	63101	
2 Segment Results (a) Sugar & Allied Businesses Sugar Distillery	4955 5102	16389 6516	5329 4984	3058 2123	
(h) Engineering Pusiesses	10057	22905	10313	5181	
(b) Engineering Businesses Power transmission	1840	2553	877	764	
Water	300	2353 952	255	242	
, , , , , , , , , , , , , , , , , , ,	2140	3505	1132	1007	
(c) Others					
	(36)	(157)	(278)	(80	
Total Segment results	12161	26253	11167	6108	
<ul><li>(i) Finance costs</li><li>(ii) Exceptional items (net) - (income)/expense</li></ul>	2083	980 -	2165	567- (14012)	
<ul><li>(iii) Share of (profit)/loss of associates and joint ventures</li><li>(iv) Other unallocable expenditure net of unallocable income</li></ul>	3 975	- 216	(837) 971	(163) 80	
Total Profit/(loss) before tax	9100	25057	8868	19636	
3 Segment Assets (a) Sugar & Allied Businesses Sugar	254320	264700	246156	26470	
Distillery	89429	88468	80564	8846	
	343749	353168	326720	35316	
(b) Engineering Businesses	00/50	01.071			
Power transmission	20653	21071	13656	2107	
Water	55260 75913	57178	48355	5717	
		78249	62011	7824	
(c) Others	1314	1123	1413	112	
Total Segment assets	420976	432540	390144	43254	
Add : Unallocable assets Total Assets	13968	12904	28515	1290-	
4 Segment Liabilities (a) Sugar & Allied Businesses	434944	445444	418659	445444	
Sugar	10630	36871	11895	3687	
Distillery	7767	6953	5617	6953	
	18397	43824	17512	43824	
(b) Engineering Businesses				1002	
Power transmission	6226	5711	3749	571	
Water	18274	21773	18064	2177	
	24500	27484	21813	2748	
(c) Others	562	592	661	59	
Total Segment liabilities	43459	71900	39986	7190	
Add : Unallocable liabilities	118152	107019	180917	107019	
Total Liabilities	161611	178919	220903	10/01	

#### Notes to the Consolidated Unaudited Financial Results for the Quarter ended June 30, 2023

- 1. The above financial results have been prepared in accordance with the principles and procedures of the Indian Accounting Standards ('Ind AS') notified under section 133 of the Companies Act, 2013 [Companies (Indian Accounting Standards) Rules, 2015 (as amended)].
- 2. In view of the seasonality of the Sugar Business, the performance results may vary from quarter to quarter.
- 3. During the quarter, the Company has incorporated a new joint venture company namely Triveni Sports Private Limited. The Company owns 50% equity stake in the joint venture company, the balance being owned by Triveni Turbine Limited.
- 4. The standalone unaudited financial results of the Company are available on the Company's website (<u>www.trivenigroup.com</u>), website of BSE (<u>www.bseindia.com</u>) and NSE (<u>www.nseindia.com</u>). Summarised standalone financial performance of the Company is as under:

Particulars	3 Months ended			Year ended
	30/Jun/2023 (Unaudited)	31/Mar/2023 (Audited) (refer note 5)	30/Jun/2022 (Unaudited)	31/Mar/2023 (Audited)
Income from operations	143158	181770	136043	630690
Profit/(loss) before tax (after exceptional items)	8976	24926	7964	213913
Profit/(loss) after tax (after exceptional items)	6661	18958	5957	192401
Total comprehensive income	6708	18708	5811	192082

- 5. The figures for the quarter ended March 31, 2023 are the balancing figures between the audited figures in respect of the full financial year ended on that date and published year to date figures up to the third quarter of the said financial year.
- 6. The above financial results have been reviewed and recommended for adoption by the Audit Committee and approved by the Board of Directors of the Company at their respective meetings held on July 25, 2023. The statutory auditors have carried out a limited review of the above financial results.

For Triveni Engineering & Industries Limited

Dhruv M. Sawhney Chairman & Managing Director

Place : Noida Date : July 25, 2023









## Investor Presentation Q1 FY 24

July 2023



AGENDA













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 sugar manufacturers in India & 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
- ~335K+ farmer associates
- >2,10,000 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



- State-of-the-art alcohol producing facilities with capacity of 660 KLPD
- 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



- 3 business segments Gears, Defence, Built to Print
- 12,000+ high speed gearbox installations globally
- 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 Motordriven Pumps, Gas Turbine Generators for auxiliary power, Fin Stabilisers, Propulsion system integration, propulsion Shafting



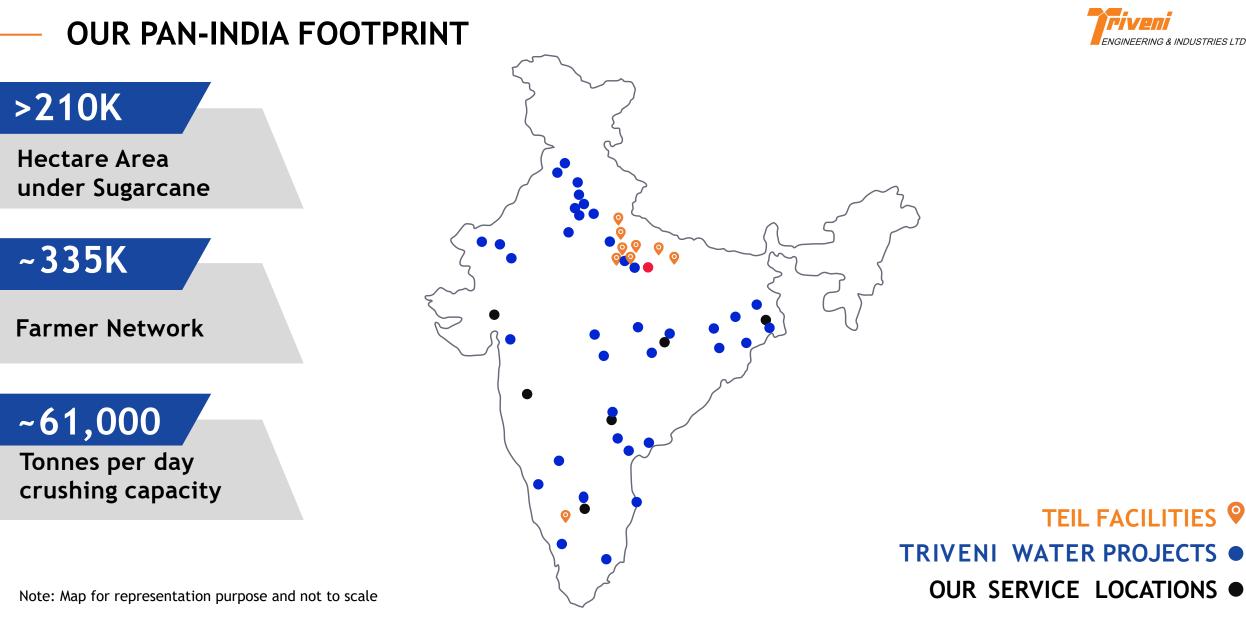
#### WATER SOLUTIONS

- Leading solutions provider for efficient water management for industrial/municipal/ urban applications
- 12,000+ 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

COMPANY OVERVIEW

24 BUSINESS-WISE UPDATE

SHAREHOLDING PATTERN



## **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



- 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



- 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



- Diverse Board of Directors with broadbased 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









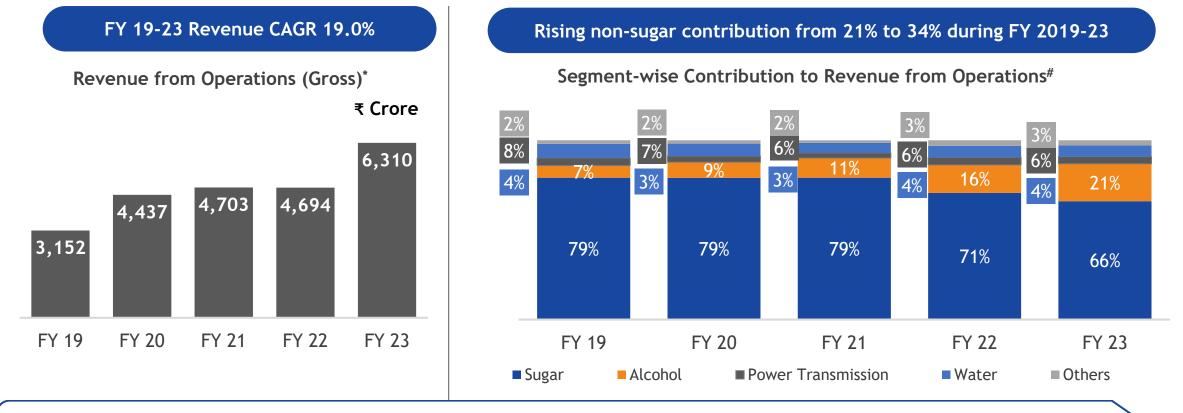
Well Diversified and Growing Revenues	<ul> <li>FY 19-23 Gross Revenue CAGR 19.0%</li> <li>Rising revenue contribution from non-sugar business from 21% to 34% during FY 2019-23</li> </ul>
Progressively improving profitability	<ul> <li>FY 19-23 PBIT CAGR 17.5%</li> <li>Sugar contribution progressively reducing; from 66% in FY 2020 to 49% in FY 2023</li> </ul>
Strong balance sheet position	<ul> <li>Improved leverage and cost of funds over the 5-year period</li> <li>ICRA reaffirmed Long Term Credit Rating of AA (Stable) in Mar 2023</li> </ul>
Consistent focus on returns	<ul> <li>Long history of returning cash through combination of dividend and buybacks</li> <li>In FY 23, Buyback of ₹ 800 crore completed and Final Dividend of 325% per equity share proposed</li> </ul>
FY 23 - a year of many milestones	<ul> <li>Record sugarcane crush, record turnover across all businesses</li> <li>Healthy financial and operational metrics</li> <li>Buyback of ₹ 800 crore following monetisation of Triveni Turbine Limited stake</li> </ul>

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

COMPANY OVERVIEW

### WELL DIVERSIFIED AND GROWING REVENUE BASE



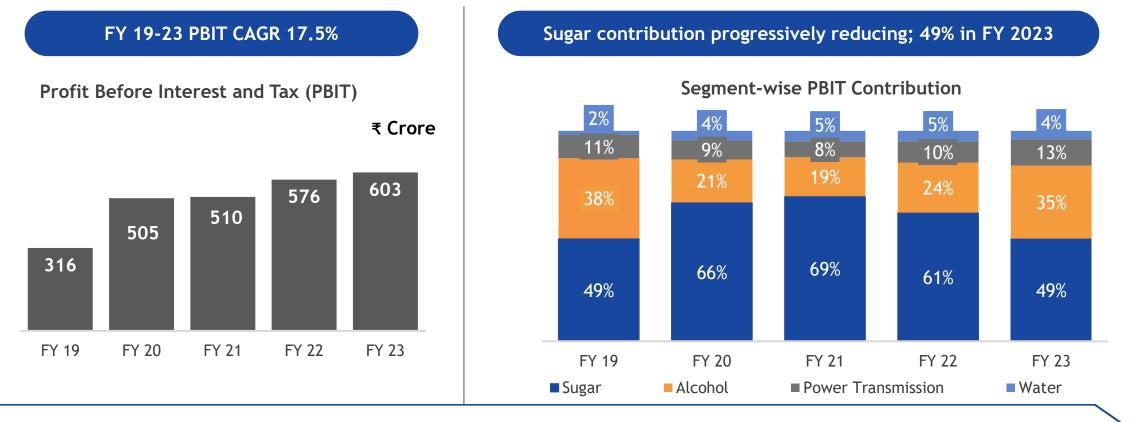


# Revenue growth of 19.0% p.a. during FY 2019-2023 with increasing contribution from non-sugar businesses

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





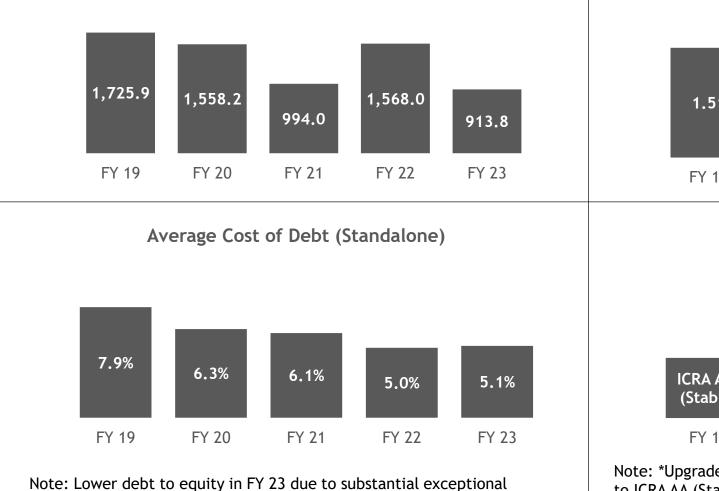
### PBIT growth of 17.5% p.a. during FY 2019-2023

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)





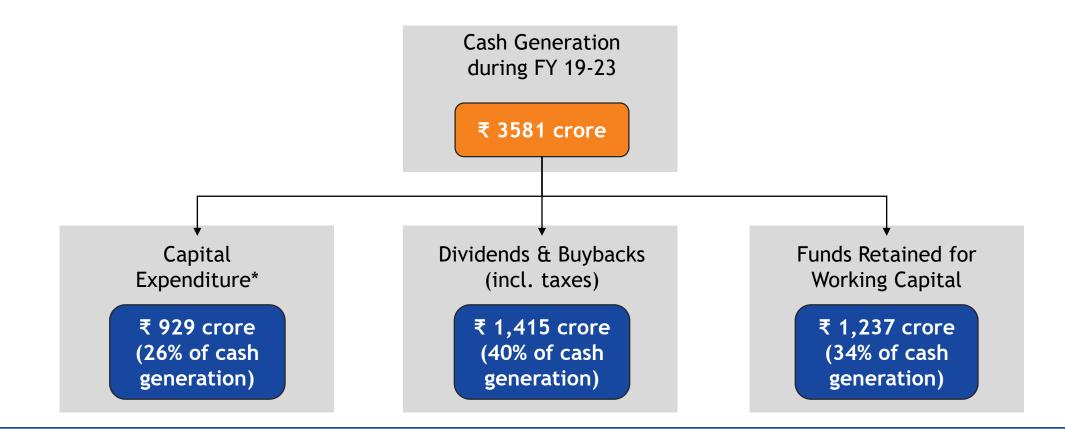


Note: \*Upgraded to ICRA AA- (Positive) on April 6, 2021 and further upgraded to ICRA AA (Stable) on November 23, 2021. Reaffirmed on March 24, 2023

income during the year

### **CREATING SHAREHOLDER VALUE**



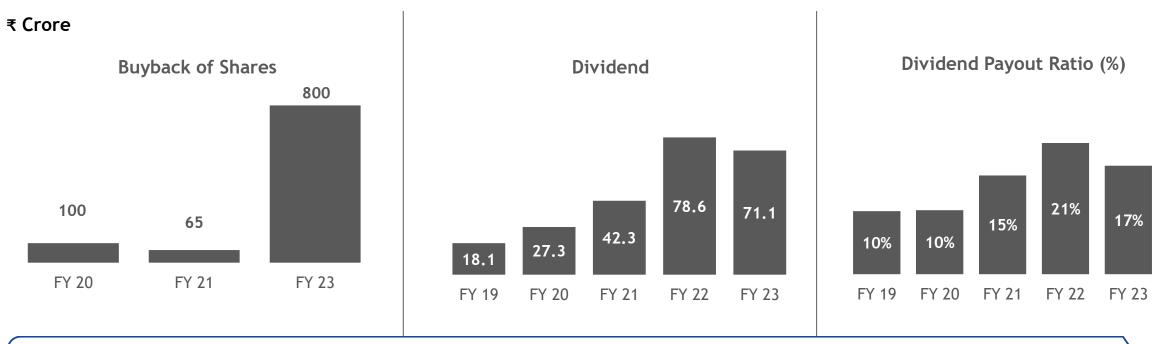


Healthy mix of investments in business for future growth and returns to shareholders

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





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  $\gtrless$  100 crores,  $\gtrless$  65 crores and  $\gtrless$  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





Higher Sugar Realisations	<ul> <li>Achieved blended sugar realisations of ₹ 37,254/MT, an increase of 5.6% over previous corresponding period due to high export realisations and relatively firmer domestic realisations</li> </ul>
Highest-ever Quarterly Alcohol Production	<ul> <li>Highest-ever quarterly Alcohol production of 5.04 crore litres, an increase of 19.3% over previous corresponding period due to additional capacities &amp; expansions commissioned</li> <li>Increase in net turnover of Alcohol businesses by 21.4% during Q1 FY 24, driven by higher</li> </ul>
Improved Revenue and Profitability in	<ul> <li>distillation capacities</li> <li>Power Transmission Business (PTB) reported robust revenue and profitability of ₹ 54.09 crore and ₹18.40 crore, registering growth of 77.8% and 109.8% Y-o-Y respectively</li> <li>21.3% Y-o-Y growth in PTB Order booking; Outstanding order book of ₹ 271.6 crore, up 11.6% Y-o-Y</li> </ul>
Power Transmission Robust Closing Order Book in Engineering	<ul> <li>Outstanding order book of ₹ 1,613 crore for combined Engineering Businesses</li> <li>Outlook for both remains constructive boosted by good domestic demand and foray into</li> </ul>
Businesses	international markets

# FINANCIAL HIGHLIGHTS Q1 FY 24

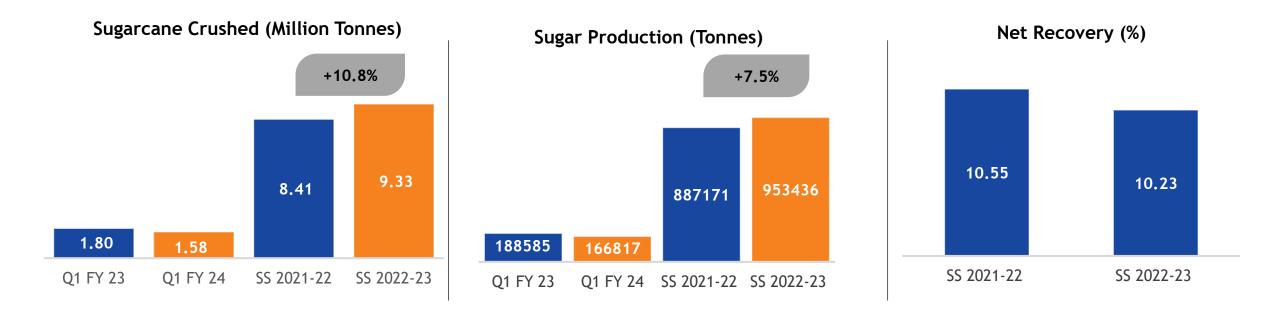


#### ₹ Crore

	Q1 FY 24	Q1 FY 24	Change (%)
Revenue from Operations (Gross)	1,432.26	1,361.48	5.2%
Revenue from Operations (Net of excise duty)	1,197.94	1,225.67	-2.3%
EBITDA	137.12	123.75	10.8%
EBITDA Margin	11.4%	10.1%	
Share of income from Associates	(0.03)	8.37	
Profit Before Tax (PBT)	91.00	88.68	2.6%
Profit After Tax (PAT)	67.61	66.45	1.7%
Other Comprehensive Income (Net of Tax)	0.47	-1.74	
Total Comprehensive Income	68.08	64.71	5.2%
EPS (not annualised) (₹/share)	3.09	2.75	12.3%

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



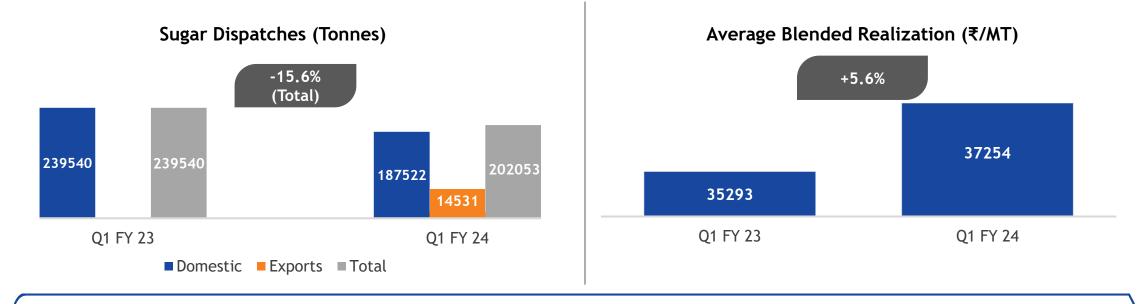


Record crush in SS 2022-23 owing to continued investments in modernisation, debottlenecking at three sugar facilities along with robust sugarcane development programme

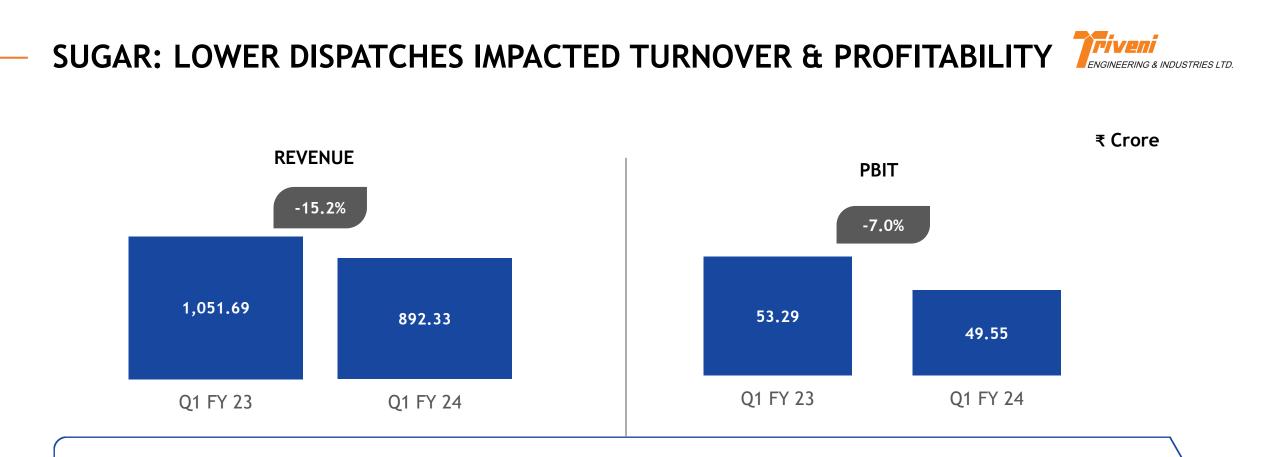
Net recovery of 10.23% with 92% of sugarcane crush with B-heavy diversion in SS 2022-23 vs. 84% in the previous season.

# SUGAR: HIGHER REALISATIONS IN BOTH DOMESTIC AND EXPORT MARKETS





- Contribution of sugar sold in Q1 FY 24 was higher by ₹ 880/tonne over Q1 FY 23 in view of higher sugar realisation prices
- Achieved sugar exports of 14531 tonnes in Q1 FY 24 out of total export quota of 204868 tonnes (190337 achieved in FY 23)
- Sugar export prices were at a considerable premium to the domestic prices

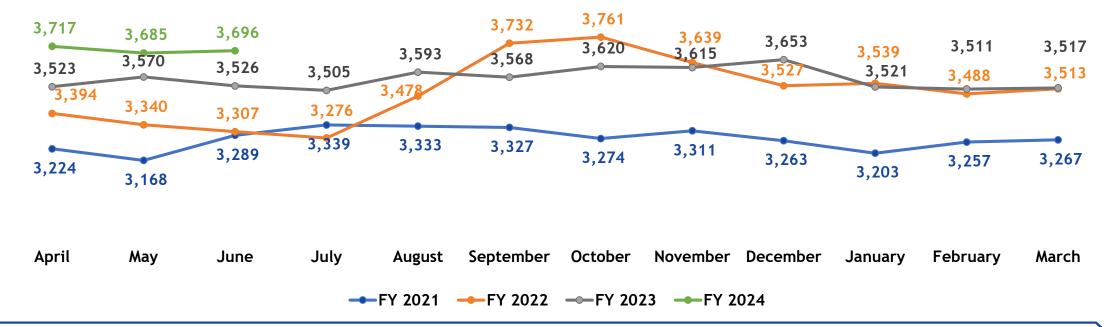


- Lower turnover in the sugar business of 15.2% due to lower domestic dispatches as compared to previous corresponding year
- This led to lower segment results (PBIT) by 7%
- The sugar inventory as on June 30, 2023 was 43.44 lakh quintals, which is valued at around ₹ 33.6/kg

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

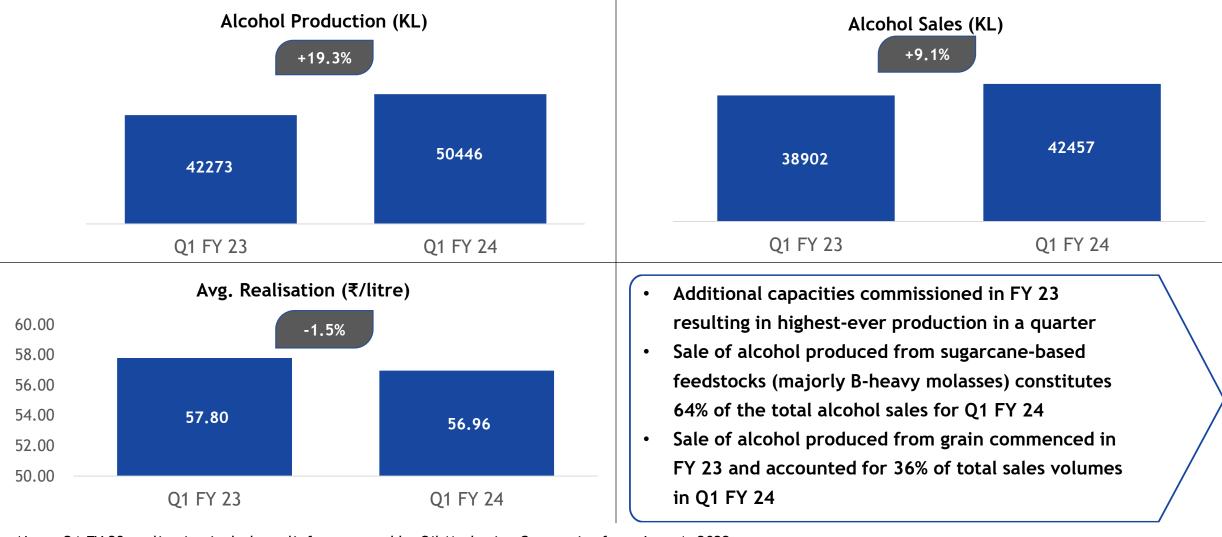


Triveni Sugar Realisation (Domestic) (₹/Quintal)



- Improved realisations over last two years; strong realisations in Q1 FY 24
- We expect sugar prices to stay firm during the year

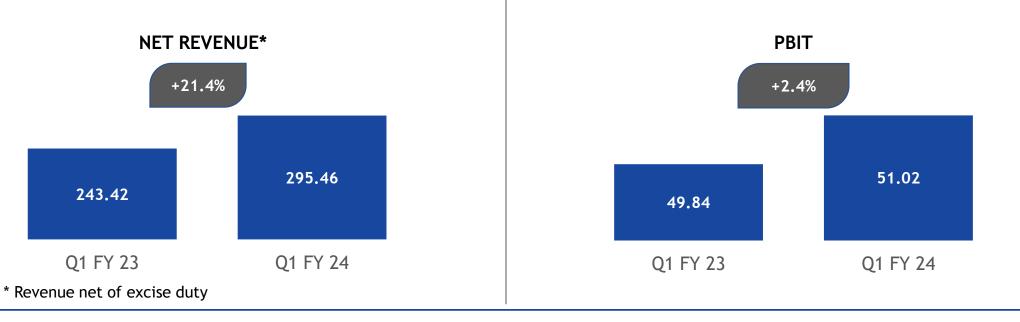
# ALCOHOL: HIGHEST EVER QUARTERLY ALCOHOL PRODUCTION IN Q1 FY 24



Note: Q1 FY 23 realisation includes relief announced by Oil Marketing Companies from June 1, 2022

ENGINEERING & INDUSTRIES LTD

# ALCOHOL: SALES GROWTH YEAR-ON-YEAR DRIVEN BY ADDITIONAL DISTILLATION CAPACITIES



- Additional capacities commissioned in FY 23 contributed to higher Alcohol sales
- Despite having record alcohol production and orders in hand, alcohol sales during the quarter under review were lower than expected due to offtake issues at OMCs' end
- Profit margin was lower in the current quarter due to change in product mix; margins associated with the grain operations are lower than B-heavy molasses

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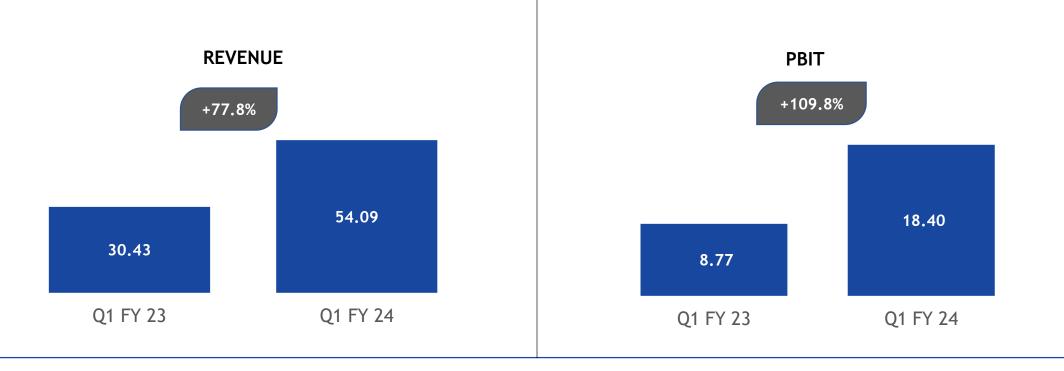
ENGINEERING & INDUSTRIES LTD

**₹** Crore

# POWER TRANSMISSION CONTINUES ITS GROWTH PATH



**₹** Crore



- Increase in Q1 FY 24 turnover and profitability driven by product sales across OEMs
- Profitability margins improved to 34.0% in Q1 FY 24 as compared to 28.8% in the corresponding period last year due to lower raw material costs and cost optimisation of SG&A expenses

# POWER TRANSMISSION CLOSING ORDER BOOK UP 11.6% Y-O-Y

243.39

Q1 FY 23

- The growth in order book during the quarter is driven by growth witnessed across key sectors such as steel, oil & gas and customer segments such as steam turbines, compressors, pumps
- Outstanding order book as on June 30, 2023 stood at ₹ 271.63 crore including long duration orders of ₹ 123.84 crore

53.89

Q1 FY 23

65.37

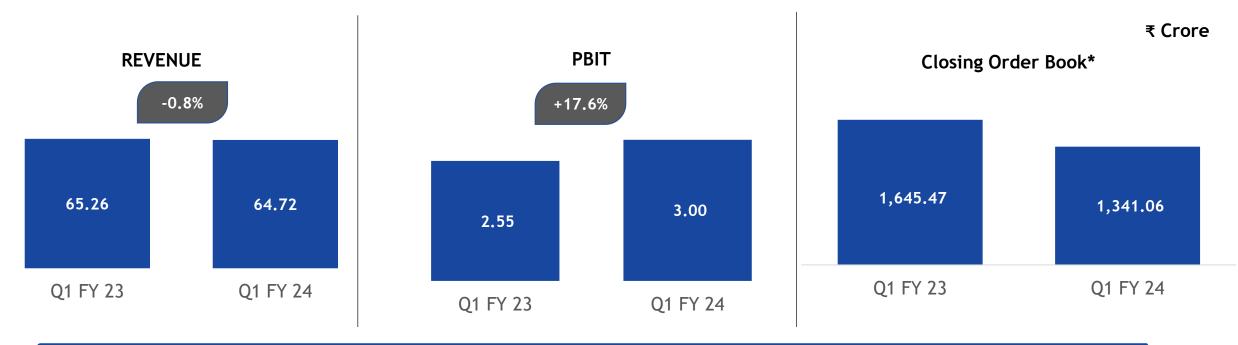
Q1 FY 24

271.63

Q1 FY 24

# WATER: CLOSING ORDER BOOK REMAINS ROBUST





- Revenues declined marginally due to delay in execution in certain projects
- 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 June 30, 2023: ₹ 905.79 crore

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.

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









# SUGAR

# **GLOBAL SUGAR OUTLOOK**

- Global Sugar Balance Sheet now pointing to surplus for SS 2022-23 of 0.8 million tonnes. For SS 2023-24, in view of the global demand and supply situation, a surplus of 4.9 million tonnes is expected.
- Bumper sugarcane crop and sugar production expected in Brazil: With higher than expected agricultural yields, International reports estimate sugarcane availability for the 2023-24 season (April-March) at 612 million tonnes and sugar production of 38.8 million tonnes.
- International sugar prices continue to remain firm: As on July 21, 2023 the NY #11 front month contract trading around US 24.5 cents/lb, London #5 trading around at \$686.50 tonne





# DOMESTIC SUGAR OUTLOOK

- Closing stock of 6.0 million tonnes expected for SS 2022-23: As per recent estimates that with an opening balance as on October 1, 2022 of around 7.0 million tonnes, sugar production for SS 2022-23 of around 32.8 million tonnes, domestic sales of around 27.5 million tonnes and 6.15 million tonnes of sugar exports, the closing stock is expected at 6.0 million tonnes.
- Monsoon Updates: For North India and the state of Uttar Pradesh, rainfall during this monsoon season, in the first half of July, has been significantly higher than last year, which is likely to aid the sugarcane crop growth. There is also an apprehension of a mild EL Nino which may occur.





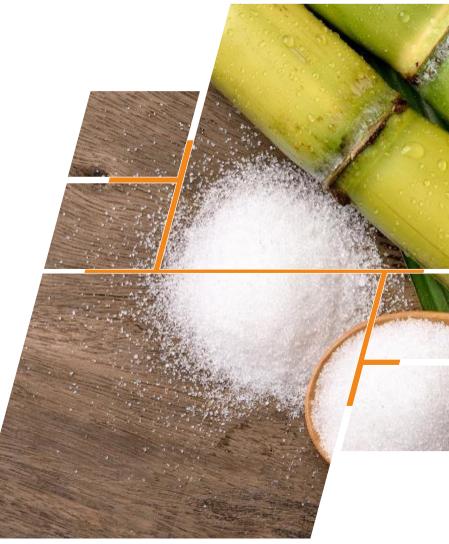
#### Structural shift from a cyclical industry into more secular and consistent performance-based industry driven by timely and predictable Government intervention

THE INDIAN SUGAR INDUSTRY IS MOVING AWAY FROM

**CYCLICALITY** 

- 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





## STELLAR SUGAR BUSINESS PERFORMANCE YEAR AFTER YEAR



932

2022-23

Area under Sugarcane (Lakh Hectares)



837

2017-18

640

2016-17

513

2014-15

452

2015-16



Sugar Produced (Lakh Quintals)





2018-19

798

874

2019-20

854

2020-21

841

2021-22



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 sugarcane 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.
- ~335k+ 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 DRP (Refining process) at Milak Narayanpur
- Modernisation, debottlenecking & efficiency improvements at various sugar units towards cost optimisation
- Enhancing sugarcane availability with minimal capex to increase the raw material for both sugar and distillery operations
- Structured Sugarcane Development Programme for varietal substitution to gradually replace the star Co-0238 variety by other high sugared and high yielding sugarcane 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 pharmaceutical sugar which fetches a substantial premium over refined sugar, making Triveni among the largest producer in the country

# SUGARCANE 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 sugarcane
- 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 sugarcane 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 and SweetLite (A stevia blended product) - 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





UGAI









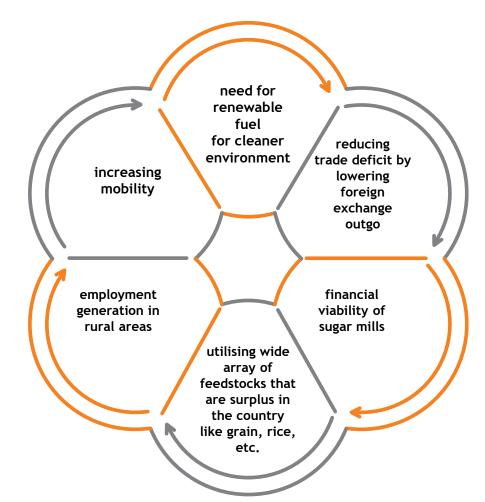
# ALCOHOL

# 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**

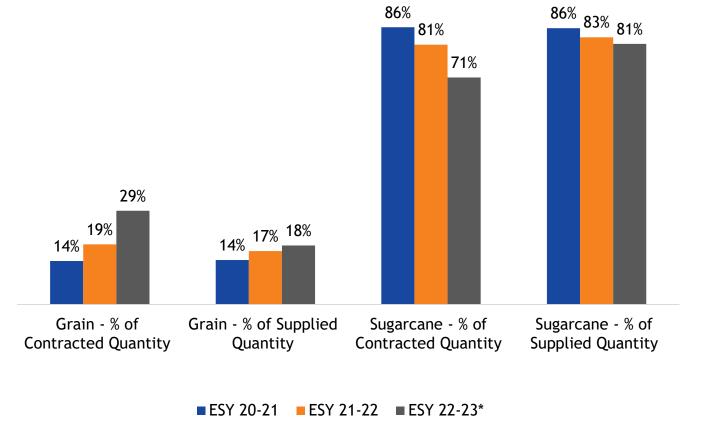


\* Source: May 2023 comments from Food and Consumer Affairs Ministry

# SUGARCANE - THE MAINSTAY OF THE ETHANOL BLENDING PROGRAMME

- Ethanol from sugarcane route continues to dominate and contributes 80-85% 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 25% of total sales volumes in FY 23, with the balance 75% from sugarcane-based feedstocks

Note: \*ESY 22-23 is Dec-22 to Oct-23 i.e. 11 months. Data for ESY 22-23 till July 2, 2023)

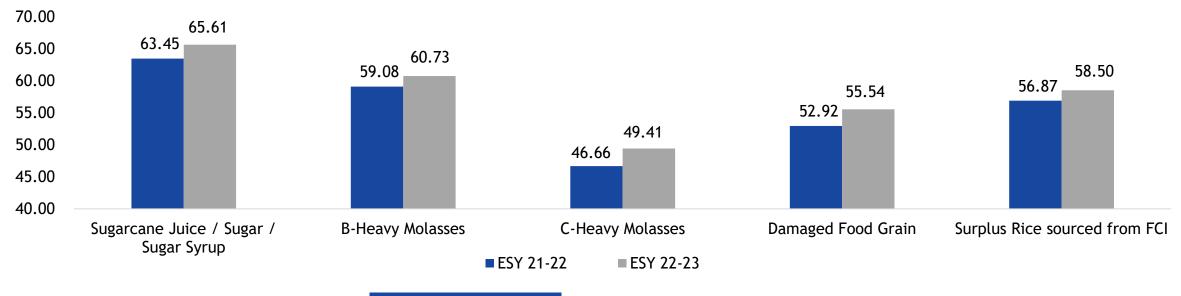




# CONTINUED ETHANOL PRICING IMPROVEMENTS



- 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

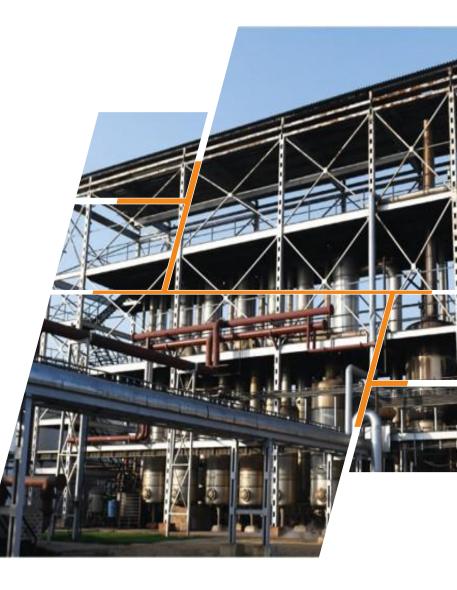


India Ethanol Pricing (₹/litre)

# **OUR ALCOHOL BUSINESS STRENGTHS**

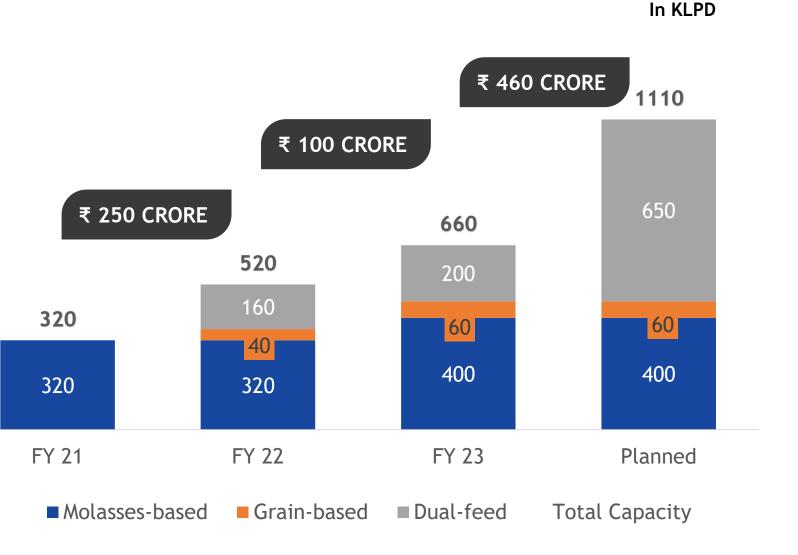
- Flexibility of both feedstock (grain/sugarcane based) and product mix (ethanol/ENA/Rectified Spirit, etc.) to optimize production and profitability based on economics
- High operational efficiencies with continuous focus on the same to further improve recoveries and reduce supplementary fuel
- Full 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

- 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



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# **OUR ALCOHOL BUSINESS INITIATIVES**



#### Ongoing:

- Overall capacity will be further expanded to 1110 KLPD
- Enhancement of sugarcane availability: Higher sugarcane 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:**

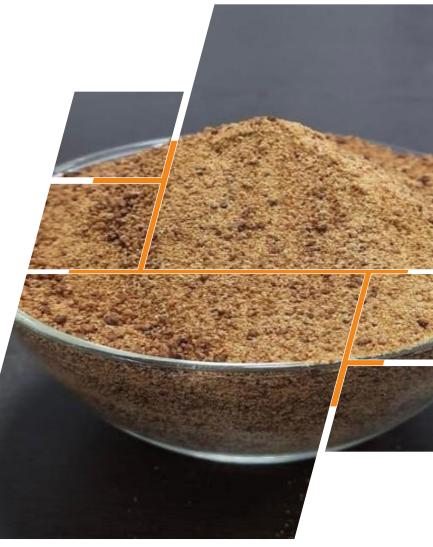
 Capacity expansion: Achieved overall capacity of 660 KLPD. First company to see such large incremental capacity coming onstream with Milak Narayanpur being the first distillery of its size in the country utilising the entire range of feedstocks

## 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 ₹ 22.5-30/kg translating to ₹ 8-12/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









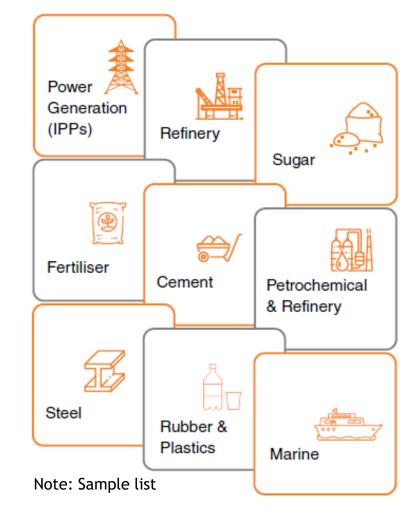


# **POWER TRANSMISSION**

# 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

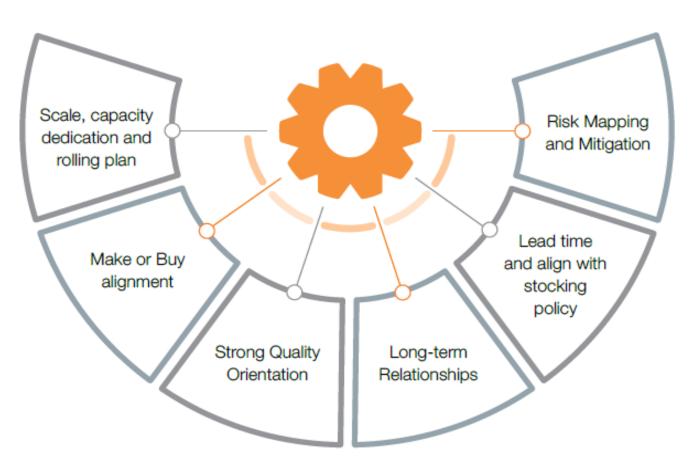




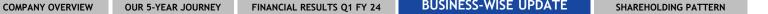
## MULTI-PRONGED STRATEGY IN POWER TRANSMISSION BUSINESS

#### Pillars of our strategic approach:

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







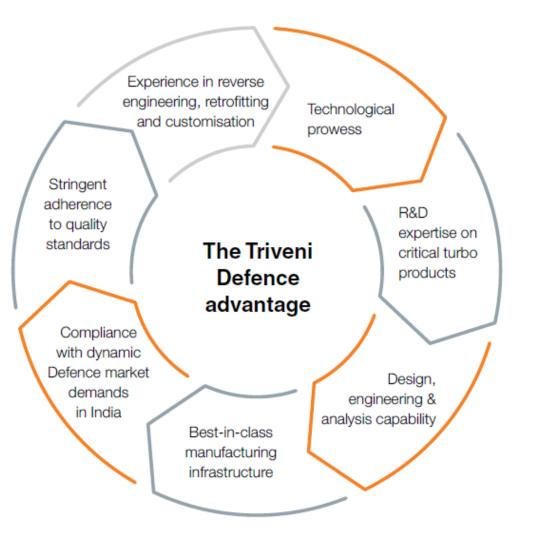
#### **BUSINESS-WISE UPDATE**

## 52

### FORAY INTO DEFENCE

#### **Our Defence Portfolio:**

- Propulsion Gearboxes and other critical gearboxes •
- Critical Turbo and Motor-driven Pumps ٠
- Gas Turbine Generators for auxiliary power ٠
- Steam Turbines to complex Turbo-Auxiliaries •
- **Propulsion System Integration**
- **Propulsion Shafting** ٠
- 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-modal 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
- ~12,000 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.



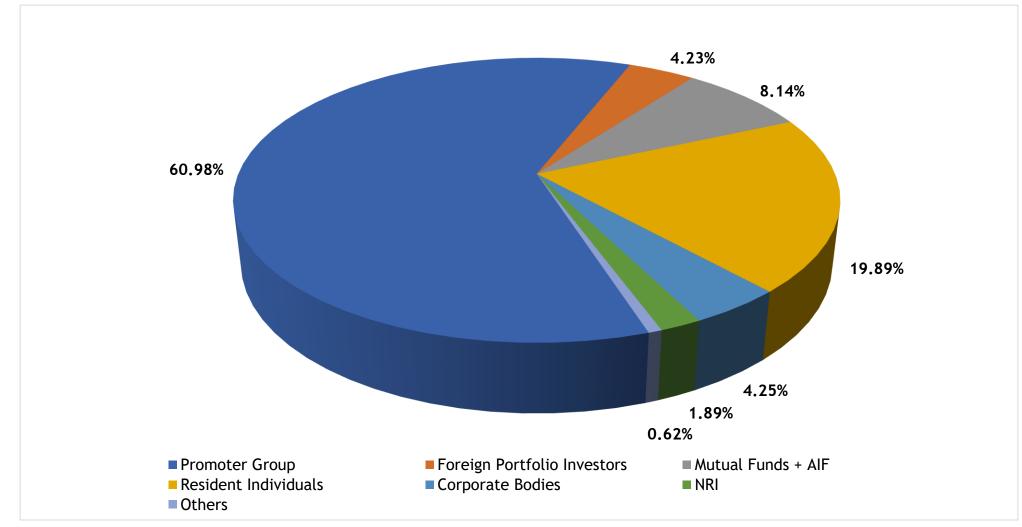






# SHAREHOLDING PATTERN





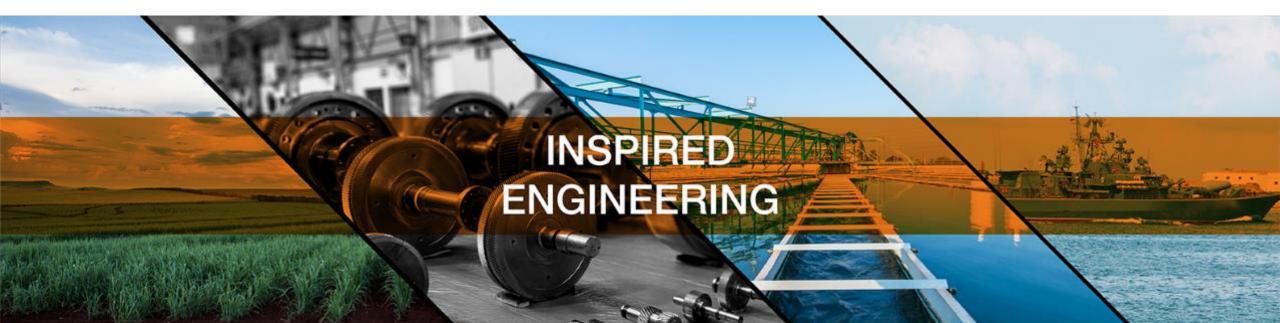
Note: For the quarter ending Jun 30, 2023. Others comprise of Clearing members, HUF, Trust, IEPF, etc.

#### **INVESTORS CONTACT**



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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
	Also known as final molasses, blackstrap molasses, treacle. This is the end by-product of the processing in the
C-Heavy Molasses	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
ОМС	Oil Marketing Companies
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