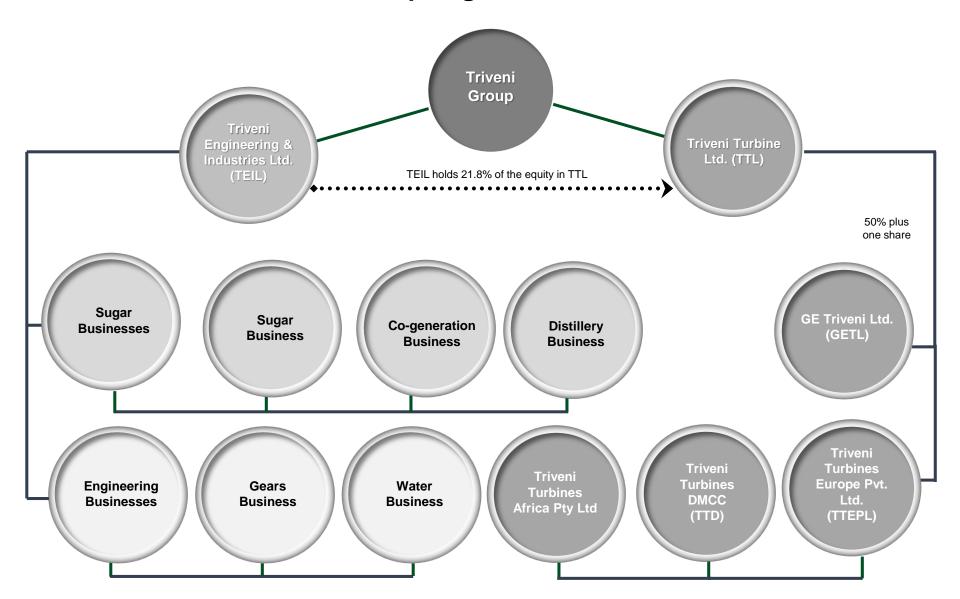


## **Triveni Group Organisation Structure**





## **Triveni Group Fact Sheet**

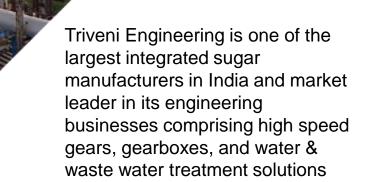
Two Independent Listed Companies with total FY 19 gross revenue of INR 39.92 billion (USD 570 million)

- Triveni Engineering & Industries Ltd.

and Triveni Turbine Ltd.

Listed in both National Stock Exchange & Bombay Stock Exchange

Promoter driven, professionally managed companies with eminent and independent Board of Directors



Triveni Turbine Ltd. is one of the world's largest manufacturers of steam turbines up to 30 MW range for providing industrial & renewable power solutions



# **Financial Performance – TEIL (Consolidated)**

In ₹ million

	Q4 FY 19	Q4 FY 18	Change (%)	FY 19	FY 18	Change (%)
Gross Revenue	8542.7	7342.7	16%	31517.4	34118.6	(8%)
EBITDA (before exceptional items)	1214.4	(1076.9)		3725.2	2913.1	28%
EBIDTA Margin	14%	NM		12%	9%	
Share of income from Associates	76.7	75.9	1%	202.3	182.2	11%
Profit / (Loss) Before Tax	892.6	(1347.0)		2678.1	1688.4	59%
Profit / (Loss) After Tax (PAT) Consolidated	797.3	(1020.9)		2162.8	1191.4	82%
Other Comprehensive Income (Net of Tax)	(10.1)	4.9		(4.1)	12.1	
<b>Total Comprehensive Income</b>	787.2	(1016.0)		2158.7	1203.5	79%
EPS (not annualized) (₹/share) *annualized	3.09	(3.96)		8.39*	4.62*	





## **Engineering Businesses**



#### **Triveni Gears**

Market leader in High speed gears & gear boxes upto 70 MW capacity and speed of 70,000 rpm

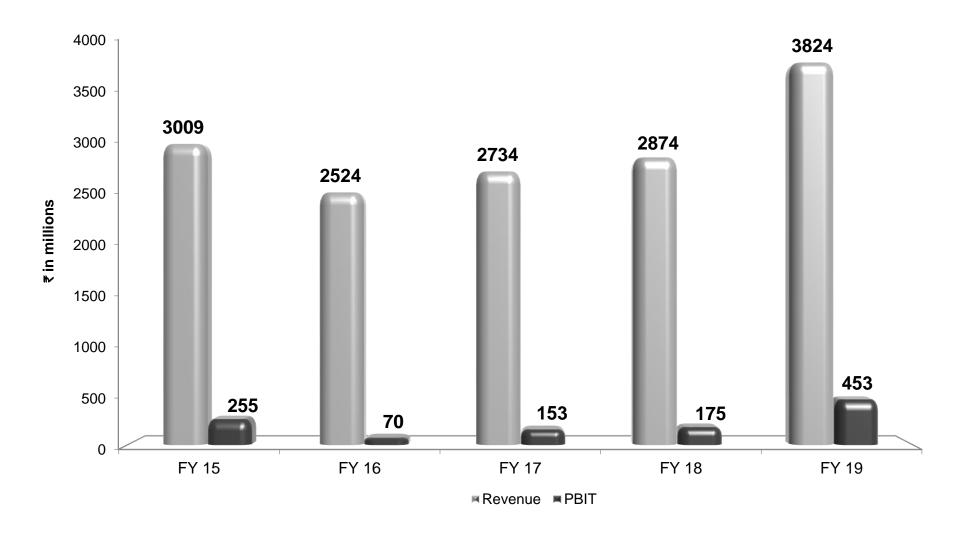
#### **Triveni Water**

A leading player in the high technology water & wastewater management business





# **Engineering Businesses – Revenue Growth**





Note: For FY 16, FY 17, & FY 18 revenue figures are including excise duty



# **Triveni Gears**





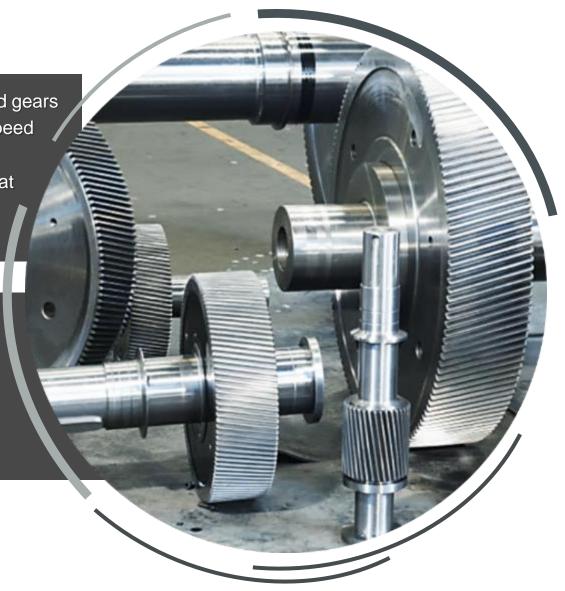


## **Gears Business - Overview**

Design, manufacture and marketing of customised gears and gearboxes (both high speed and niche low speed gears)

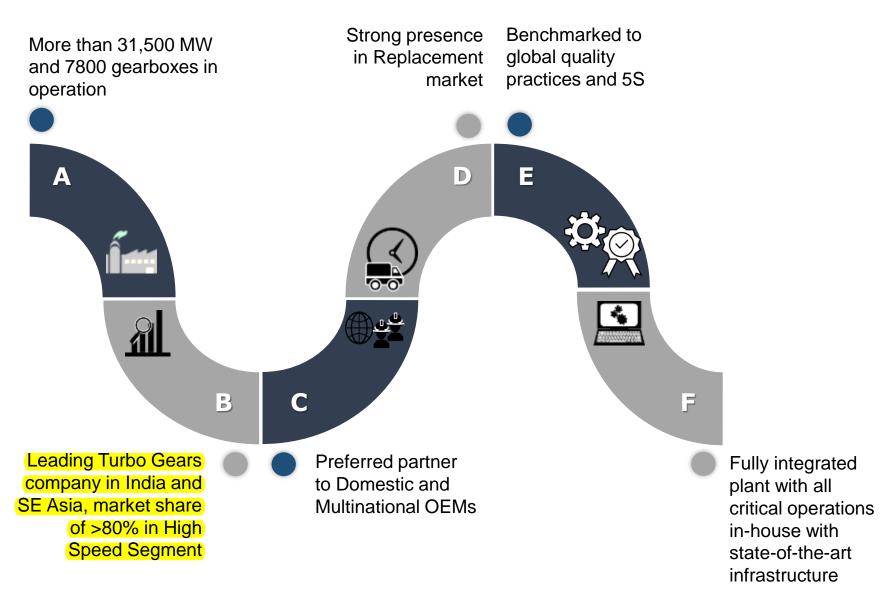
State-of-the-art design and manufacturing facility at
 Mysore conforming to international standards

- ☐ Triveni technology for high speed gear boxes upto 7.5 MW and for hydel gearbox range upto 6 MW
- □ Range above 7.5 MW-62 MW is manufactured using technology licensed from GE (Lufkin), USA



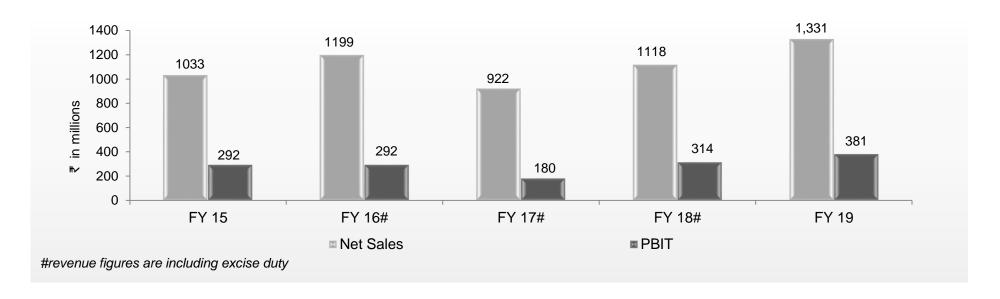


## **Gears Business - Overview**





## **Gears Business – Financial Performance**



- □ The year under review registered a growth of 19% in □ Overall the market looks stable with positive signs turnover while the profitability has been higher by 21%, which is the highest ever turnover and profitability for the Gears business.
- □ The growth in OEM sales and Spares & Services including exports is 24% and 15% respectively during the year.

- from the OEM segment.
- □ The business has strong enquiries from Defence and is hopeful of concluding some more of them in the coming quarters.

Outstanding Order Book as on 31<sup>st</sup> Mar 2019 – ₹ 1.76 billion (including ₹ 482 million long term orders)





# **Triveni Water**







## **Water Business - Overview**

Technology association with world's leading technology providers for various products, process & solutions such as Ultra filtration (UF), Reverse Osmosis (RO), Moving Bed Bio Reactor (MBBR) etc.

Over 2000 numbers of process equipment for water & waste water treatment applications, supplied and commissioned till date

□ During FY 12, the Company has made a long term strategic investment by acquiring 25.04% equity stake in an International Water Technology Company, engaged in providing water treatment solutions using proprietary technology



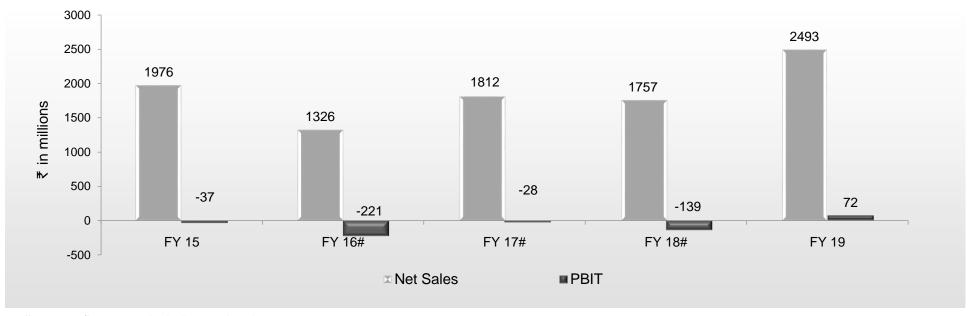


## **Water Business - Overview**

Over 100 successfully operating Technology associations with the installations across various world's leading technology segments – infrastructure, providers for various products, industrial and municipal processes and solutions D B Won many Water Approx. 8000 MLD of water Awards for Innovative is treated through our project designs projects & equipment



## Water Business – Financial Performance



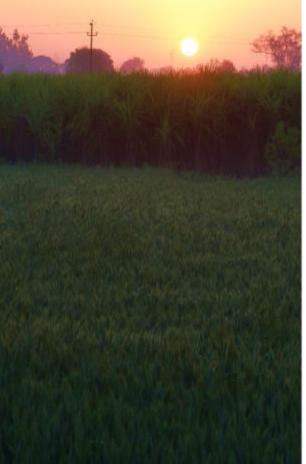
#revenue figures are including excise duty

- □ The improved performance is attributed to substantial intake of orders, which resulted in increased activities and turnover.
- □ The order inflow in the full year has been ₹ 10.3 billion including O&M.

PIVENI ENGINEEDING & INDUSTRIES LTD



# Triveni Sugar







## **Sugar Business**



## Sugar

One of the largest sugar producers in India with seven sugar manufacturing facilities

#### **Co-generation**

Three grid connected co-generation plants and three incidental co-generation plants located across five sugar units.





### **Distillery**

One of the largest single stream molasses based distillery in the country located at Muzaffarnagar

## **Sugar Business – Industry Overview**

- The country's sugar production for SS 2018-19 is estimated at
   ~33.0 million tonnes, ~ 0.5 million tonnes higher than the previous season & country's highest sugar production so far, out-performing the previous high during SS 2017-18.
- As per recent estimates, Uttar Pradesh is expected to produce around 12 million tonnes of sugar, followed by Maharashtra at over 10.7 million tonnes, while Karnataka is expected to produce around 4.4 million tonnes of sugar.
- The estimated closing sugar balance on 30<sup>th</sup> Sept 2019 is expected to be around 14.2 million tonnes (opening balance • of 10.7 million tonnes on Oct 1, 2018), after considering exports of 3.5 million tonnes.
- In view of mounting cane dues, the Government increased the Minimum Selling Price (MSP) of sugar from ₹ 29000/tonne to ₹ 31000/tonne in February'2019.
- ➤ With a view to liquidate cane dues, the Govt. also approved scheme for soft loans with interest subvention of 7% for a period of one year to support the sugar industry.
- Cane price arrears in the State of UP, as on 20<sup>th</sup> May'19 is at
   ₹ 110 billion as compared to ₹ 122 billion, same date in previous year.
- PIVETI ENGINEERING & INDUSTRIES LTD.

- OMCs have floated fresh tender for supply of 329 crore litres of ethanol in SS 2018-19, which includes 66 crore litres for ethanol manufactured from B-heavy molasses/sugarcane juice/damaged food grains and 26.3 billion litres from C-heavy molasses. Against the total tender value, only 26.0 billion litres of LOI were issued and 23.7 billion litres of PO have been issued. If the entire 23.7 billion litres is blended it will be 7.2% of blending which will be the highest levels to be achieved.
- With the Government providing cheaper funds for setting up new distillation capacities, it is estimated that the annual ethanol production capacity is expected to grow from the current 35.5 billion litres to 60.0-70.0 billion litres per annum in the next 2 to 3 years which will be sufficient for over 15% of ethanol blending with petrol.
- Based on the initial crop area estimates for SS 19-20, sugar production in the state of Maharashtra will be in range of 7.5 to 8.0 million tonnes, down by 2-2.5 million tonnes due to lower estimates of rainfall, whereas the estimates for Uttar Pradesh remain at same levels of SS 18-19. Therefore, the country's initial sugar production estimates for SS 2019-20 is ~ 30 million tonnes, which will be result of climatic factors as well as expected diversion for ethanol production.

## **Sugar Business – Industry Overview**

#### **International Sugar Market**

- The global sugar production is estimated to be 174.5 MTRV in 2018-19 which is a surplus of ~2 million tonnes while for 2019-20, sugar production is projected to be in deficit of 2-4 million tonnes.
- Brazil which produced 26.5 million tonnes during 2018-19, is estimated to produce around 27.5 to 28.0 million tonnes in 2019-20. Other major producing countries like Thailand is likely to produce around 12.5 to 13.5 million tonnes of sugar during 2019-20 down by 1.0 to 1.5 million tonnes from previous season. China is estimated to produce around 11 million tonnes of sugar down by 0.5 million tonnes from previous season.
- Despite estimated global sugar deficit in 2019/20, ICE raw sugar futures declined since the beginning of 2019 and closed at 11.65 cents/pound, and white sugar closed at 323.70 USD/tonne on May 20, 2019.





## **Sugar Business – Industry Overview**

(Figures in million tonnes)

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 (P)	2018-19 (E)
Opening Stock as on 1st Oct.	6.6	9.3	7.5	9.1	7.75	3.9	10.7
Production during the Season	25.1	24.4	28.3	25.1	20.3	32.4	33.0*
Imports	0.7	0.1	0.0	0.0	0.5	0	0
Total Availability	32.4	33.8	35.8	34.2	28.55	36.3	43.7
Off-take							
I) Internal Consumption	22.7	24.2	25.6	24.9	24.6	25.5	26.0
ii) Exports	0.3	2.1	1.1	1.6	0.05	0.5(#)	3.5
Total off-take	23.1	26.3	26.7	26.5	24.65	26.0	29.5
Closing Stock as on 30 <sup>th</sup> Sept.	9.2	7.5	9.1	7.7*	3.9	10.3	14.2
Stock as % of Off-take	39.8%	28.5%	34.0%	28.1%	15.8%	39.6%	54.6%

- Source: Industry data; SS 18-19 Company Estimates; (#) Exports under MIEQ considered
- Closing stock taken as a percent of off-take is one of the indicators of sugar price movement
- \*Production includes B-heavy



## **Sugar Business - Overview**

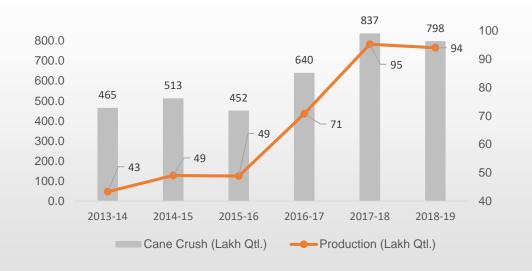
- Major facilities located in cane rich areas of Western Uttar Pradesh with more than 80% cane intensity – fertile and irrigated land
- Sugar cane catchment area for all sugar units under canal irrigation – both in Western & Central Uttar Pradesh -Lower dependency on monsoon
  - □ Closer to country's major sugar consuming markets better realizations & lower transportation cost. Long term relationship with ~ 3,00,000 farmers
  - ☐ Extensive sugar cane development programme to develop new areas under cane cultivation in our new locations; improving yields of cane across the units.

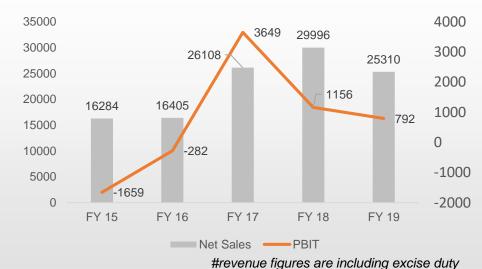




## **Sugar Business – Financial Performance**

(₹ in millions)





- Sugar is being sold as per the monthly release quota allocated to sugar mills by the Government and the sale volume is dependent on such monthly releases.
- The sugar inventory as on Mar 31, 2019 was 62.51 lakh quintals, which is valued at ₹ 30/Kg (excluding 5.20 lakh qtl. sugar earmarked for exports, which has been valued at export price).
- Income from Incidental co-generation units at Chandanpur, Milak Narayanpur and Sabitgarh resulted in a revenue of ₹ 233 million for the year ended Mar 2019.
- Export losses (SS 2018-19) of ₹ 812 million have been provided for towards the export expenses incurred /contracted or as inventory write down of sugar produced and earmarked to be exported.



# **Co-generation Business - Overview**

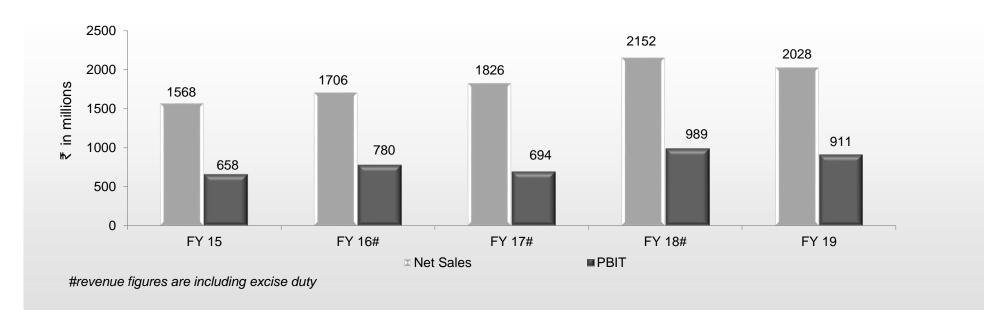
Triveni presently operates grid connected three cogeneration plants and three incidental co-generation plants located across five sugar units which facilitate export of surplus power to Uttar Pradesh Power Corporation Limited (UPPCL).

□ Deoband and Khatauli co-generation plants of the Company are registered as Clean Development Mechanism (CDM) projects with United Nations Framework Convention on Climate Change (UNFCCC) and have been registered with National Load Dispatch Centre (NLDC) as REC projects





# **Co-generation Business – Financial Performance**



Previous year included income from REC to the extent of ₹ 101.1 million whereas no such income accrued during the year.





## **Distillery Business - Overview**

Two molasses based distilleries of 160 KLPD each located in UP.

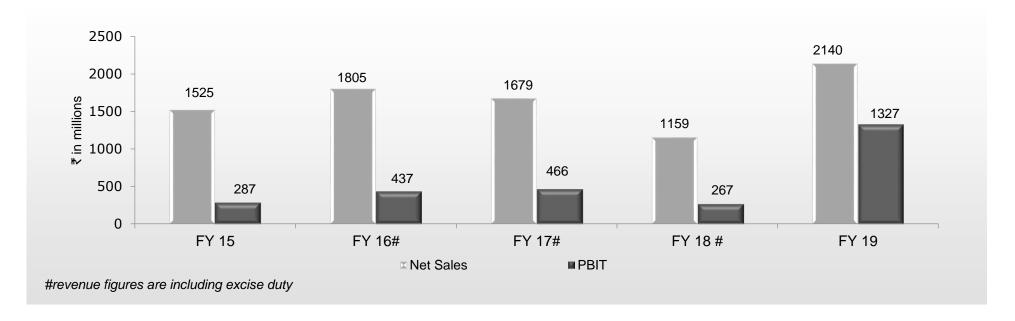
Strategically located in close proximity to Triveni's sugar units - the distilleries procure consistent supply of captive raw material.

☐ The distilleries mainly produce Ethanol while these can also produce Extra Neutral Alcohol (ENA), Rectified Spirit (RS), Special Denatured Spirit (SDS)



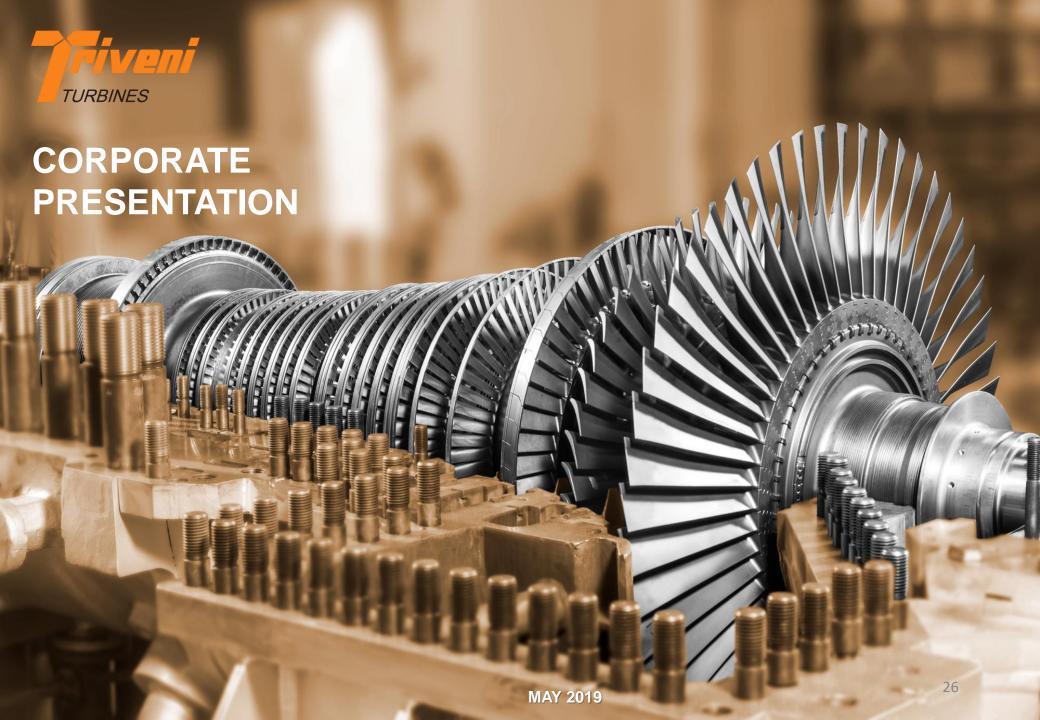


## **Distillery Business – Financial Performance**



- PBIT in Q4 & FY 19 is significantly higher than the  $\Box$  The Government of India announced the revised prices for corresponding periods of previous year, due to lower raw material cost, higher production / sales volume and higher realization price.
- The Company received ~ 66 million litres of contract for ethanol supply from OMCs during 2018-19 (Dec 18- Nov 19).
- The share of Ethanol sales in FY 19 is 97% of the total sales volume, as against 94% in FY 18.

- the ethanol supplies during 2018-19 as under:
- ✓ Using C Molasses ₹ 43.46 per litre
- ✓ Using B-heavy molasses/ partial sugarcane juice ₹ 52.43 per litre
- ✓ Using 100% sugarcane juice ₹ 59.19 per litre.
- Project relating to setting up of new Ethanol plant at Sabitgarh sugar unit has been successfully completed and the new distillery unit has been successfully commissioned during last week of April, 2019.



#### **Triveni Turbines Factsheet**



The world's largest manufacturer of steam turbines (5 to 30 MW) globally

Over 3000 steam turbines installed globally



The world's largest manufacturer of steam turbines up to 30 MW range for providing industrial & renewable power solutions

Over 12 GW power generation capacity



Market leadership position in India, with around 60% market share for a decade

Presence in over 70 countries



Joint Venture with BHGE (a GE company), GE Triveni Ltd, with majority stake for the range above 30 MW to 100 MW



## **Global Footprint**





CAGR of 17% in Exports sales in past 5 years

### **Reliable & Robust Steam Turbines**

Robust back-pressure and condensing steam turbines up to 100 MW that work across a wide range of pressure and flow applications with choice of Impulse and Reaction technology

#### Upto 30 MW

Condensing Steam Turbines
Straight Condensing Type
Extraction Condensing Type
Bleed Condensing Type
Injection Condensing Type
Double Extraction Condensing

# **Back Pressure Steam Turbines**

Straight Back Pressure Type Extraction Back Pressure Type Bleed Back Pressure Type



#### Above 30 MW to 100 MW

# **Condensing Steam Turbines**

Uncontrolled Extraction Controlled Extraction Reheat Turbines Injection condensing Turbines

# **Back Pressure Steam Turbines**

Uncontrolled Extraction
Controlled Extraction



# **Industries & Applications**





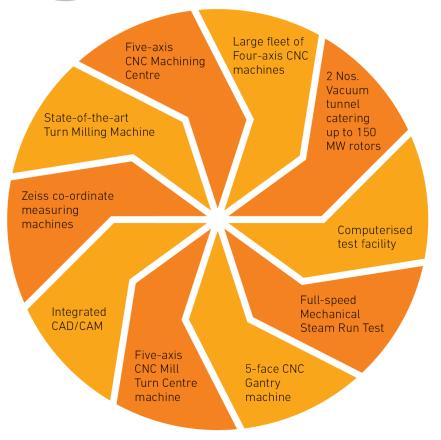
## Infrastructure



State-of-the-art facilities equipped to provide manufacturing of critical components, assembly, testing and refurbishing services



Latest design tools and software to deliver innovative solutions to customers



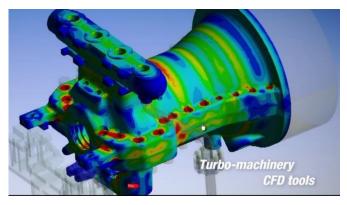


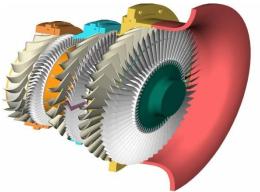
ISO 9001-2008 ISO 14001-2008

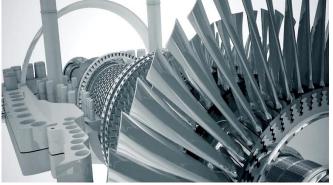
AS9100D



## **Design & Development**







Cutting edge products with minimum lifetime ownership cost; Customer focused R&D; Extensive in-house tests and field validation programs



Experienced design team with structural, Aero domain experts



Proven modular building blocks extensively tested for product life cycle performance



Customer Capex and Opex optimisation with extensive operability benefits



Association with world-renowned design houses and academia - IISc., Cambridge, Polimi, Impact Tech. (Lockheed Martin), Concepts NREC, USA

Innovative product development concepts such as design to cost, QFD, FMEA techniques, DOE



Advanced CFD, FEA, Neural network based algorithms employed for aero performance and product reliability maximisation



Customised Plant Engineering solutions with PLM, SAP, advanced CAD/CAE

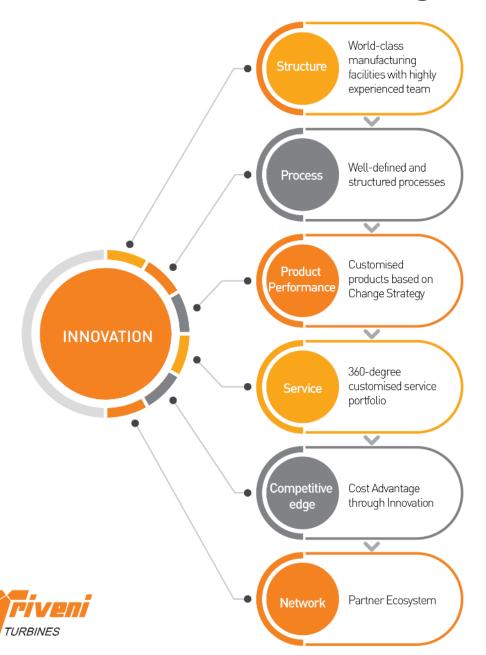


The advanced R&D product program has over 60 field proven models/ variants





## **Design & Development**





#### Leading Edge Technology

Enhancing performance by deploying latest design tools and software like Turbo-machinery CFD tools, FEA tools, CAD modelling, lateral & torsional rotor dynamics software



#### Superior Designs

Maximising efficiency and reliability by enhancing steam turbine designs for higher inlet temperature & pressure



#### Total Customer Satisfaction

Delivering more to the customer - help them to achieve unhindered performance and power self-sufficiency at optimal cost



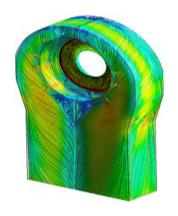
#### Cost-Efficiencies

Higher efficiencies and lower cost in terms of ownership and operations

- Customised product based on modular building blocks
- Maximising efficiency and reliability by advanced aero blade-path
- Customer focused CAPEX/OPEX optimised product/plant designs
- Service solutions focused on turbine uptime maximisation
- Cost-out programs with competent product engineering
- R&D on futuristic energy technologies such as Super critical CO2 power blocks.

## **IT Enabled Operations**





#### **Business Software**

- SAP HANA
- Salesforce.com
- Primavera
- IOT Fleet RMD
- IOT- CNC shop
- ITO- Cost tools
- OTR- Primavera

#### **Technical software**

- CFX
- ANSYS
- · Concepts Aero Suite
- Dyrobes, ARMD
- PLM-Teamcentre
- Pro-E, Unigraphics
- Ax-turbo
- MISES
- Thermoflow, Gatecycle
- Matlab



## 360° Customised Service Portfolio

For every turbine served throughout its lifecycle





AMCs for Steam Turbines



Re-engineering



**OEM Expertise** 



Health Survey & Condition
Assessment



Reverse Engineering



Latest Equipment



Efficiency restoration



Overhauling



Highly Skilled Team

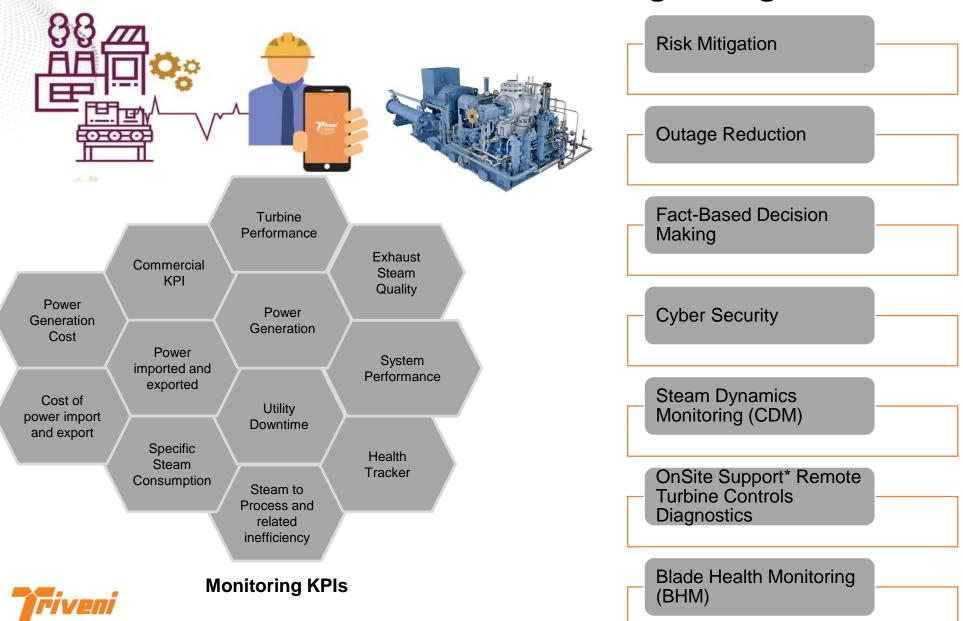


# Triveni's Refurbishment Business targets all makes of Turbo-machinery globally



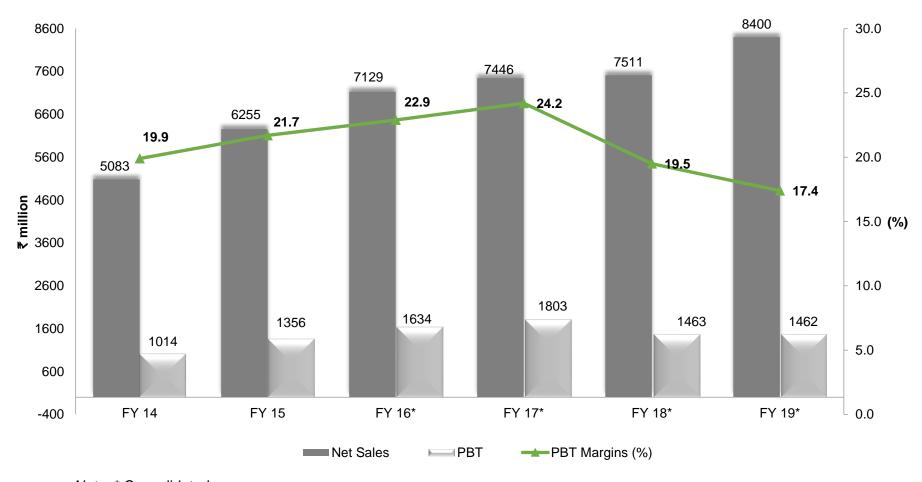


## **Triveni Touch: Remote Monitoring & Diagnostics**



**TURBINES** 

## **Financial Performance**



Note: \* Consolidated



# FY 19 Financial Performance (Consolidated)

- Net Income from Operations ₹ 8.4 billion, a growth of 12%
- PAT ₹ 1 Billion, a growth of 4%
- Record order booking at ₹ 8.5 billion
- During FY 19, the exports turnover was higher by 17% at ₹ 3.94 billion with the mix of exports in total sales marginally higher at 47% in comparison to FY 18
- The share of aftermarket sales to total sales in FY 19 is 25% as against 26% during FY 18, even though the aftermarket sales has increased by 7% at ₹ 2.1 billion from ₹ 1.9 billion

- During FY 19, the Aftermarket segment has performed very well with a growth of 13% over FY 18 in terms of order booking while sales growth stood at 7%.
- The aftermarket business has developed traction in international markets with a year-on-year growth of 49% and its share in outstanding aftermarket order book is 51% during FY 19
- The outstanding consolidated order book as on Mar 31, 2019 stood at ₹ 7.2 billion.



# Q4/ FY 19 Financial Performance (Consolidated)

₹in million

	Q4 FY 19	Q4 FY 18	% variation	FY 19	FY 18	% variation
Net Income from Operations	2397	2441	-2%	8400	7511	12%
EBITDA	455	629	-28%	1675	1660	1%
EBITDA Margin	19%	26%		20%	22%	
Depreciation & Amortisation	53	53	-	201	191	5%
PBIT	403	576	-30%	1473	1468	
PBIT Margin	17%	24%		18%	20%	
Finance Cost	7	0		11	5	120%
PBT	395	576	-31%	1462	1463	
PBT Margin	17%	24%		17%	19%	
Share of Profit of JV	23	-33		32	-25	
Consolidated PAT	283	354	-20%	1002	960	4%
<b>Consolidated PAT Margin</b>	12%	15%		12%	13%	
EPS (₹/share)	0.87	1.07		3.05	2.91	





- Triveni Turbine Ltd. formed a 50:50 Joint Venture with a GE affiliate on 15<sup>th</sup> April 2010. GE Triveni Ltd. (GETL) headquartered in Bengaluru, a subsidiary of TTL, designs, supply, sell and service advanced technology steam turbines in India in the range above 30-100 MW for power generation applications in India and globally
- GETL gets technology and on-going R&D support from GE and TTL and use TTL's Bengaluru facility for turbine manufacturing

- JV registered a total revenue of ₹ 777 million with a profit of ₹ 90 million. There has been some delay in customer clearances for the shipment of large turbines and the same will be dispatched in H1 FY 20.
- The execution and commissioning of large sized turbines in the export market is underway and GETL expects these references to help it to achieve enhanced order inflows in the future.



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#### **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.

