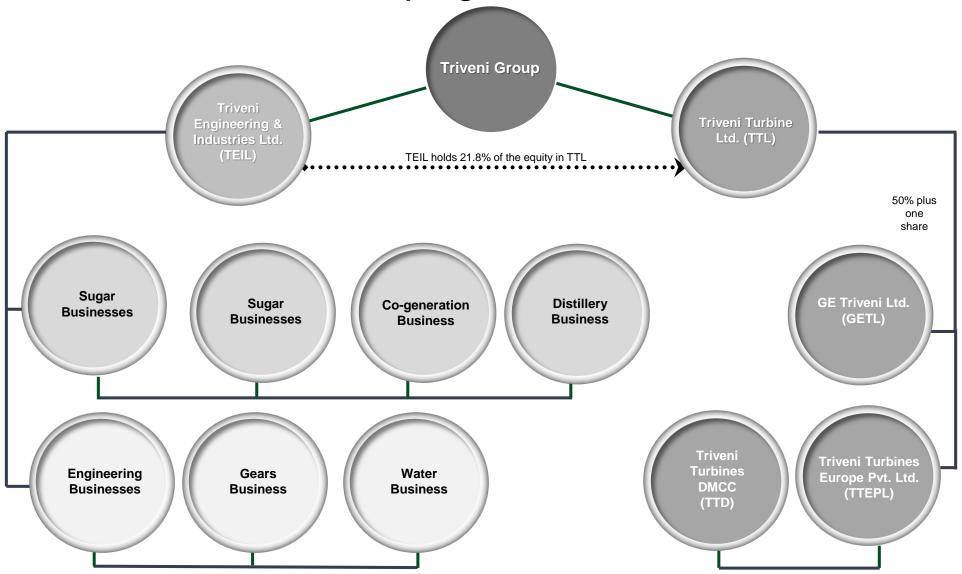


### **Triveni Group Organisation Structure**





#### **Triveni Group Fact Sheet**

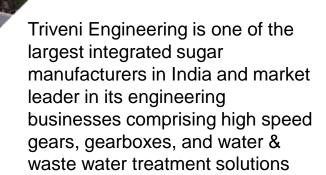
Two Independent Listed Companies with total FY 18 gross revenue of INR 41.55 billion (USD 560 million)

- 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

	Q2 FY 19	Q2 FY 18	Change (%)	H1 FY 19	H1 FY 18	Change (%)
Gross Revenue	6877.5	10607.5	(35)	13943.6	19050.4	(27)
EBITDA (before exceptional items)	672.4	1703.0	(61)	1457.7	3022.5	(52)
EBIDTA Margin	10%	16%		10%	16%	
Share of income from Associates	52.3	49.4	6	85.2	73.0	17
Profit / (Loss) Before Tax	448.8	1406.9	(68)	898.9	2244.7	(60)
Profit / (Loss) After Tax (PAT) Consolidated	323.6	1006.2	(68)	694.8	1611.6	(57)
Other Comprehensive Income (Net of Tax)	(6.5)	(2.8)		(10.2)	(2.2)	
Total Comprehensive Income	317.1	1003.4	(68)	684.6	1609.4	(57)
EPS (not annualized) (₹/share)	1.25	3.90		2.69	6.25	

Change in Accounting treatment: Off-season expenses not deferred but expensed as & when incurred/accrued; Impact of 945 million on PBT





# **Engineering Businesses**



#### **Triveni Gears**

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

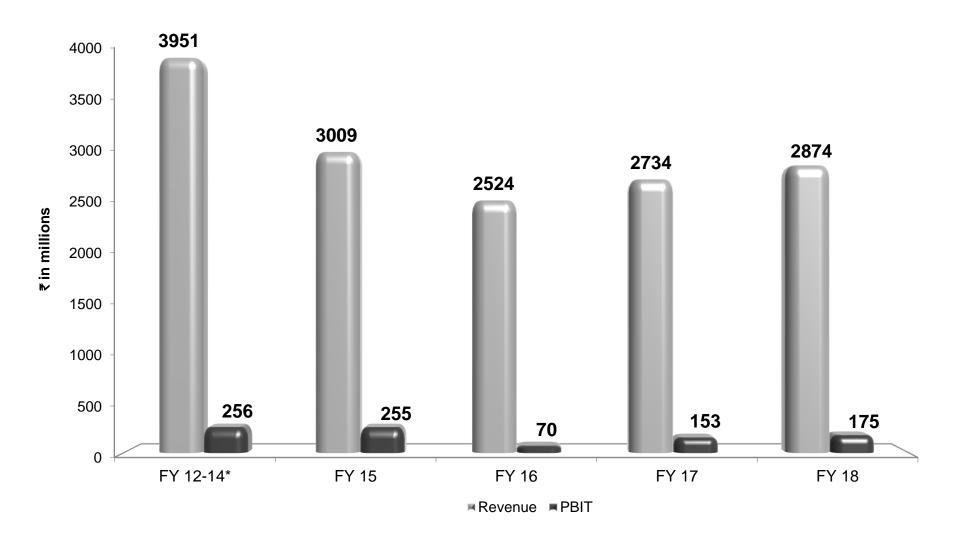
#### **Triveni Water**

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 FY 12-14\* - 18 months period from Oct 12 – Mar 14



# **Triveni Gears**





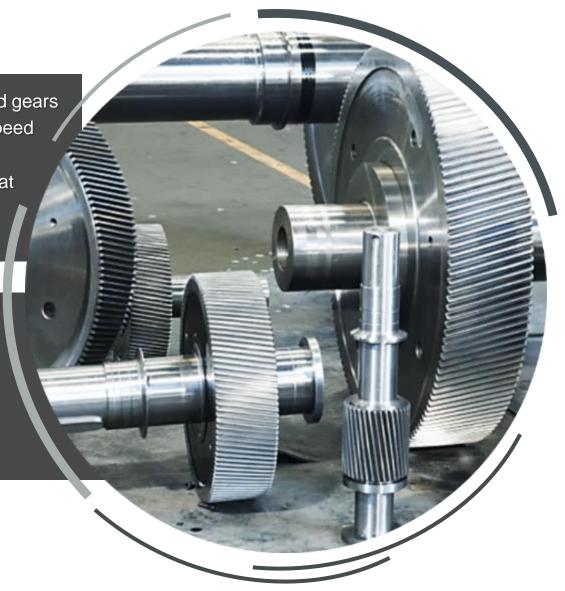


#### **Gears Business - Overview**

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



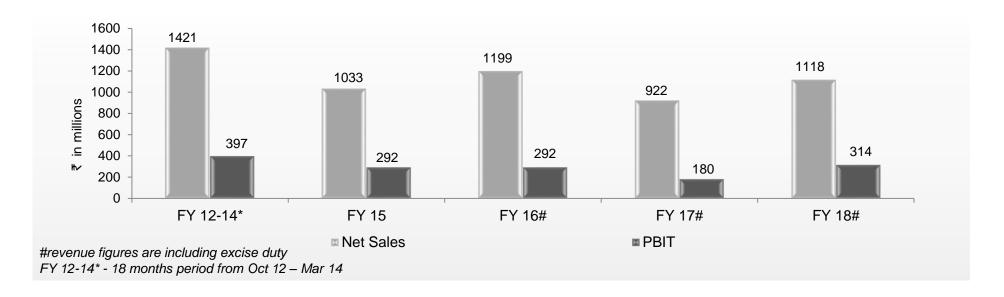


#### **Gears Business - Overview**

Benchmarked to Strong presence More than 21,500 MW in Replacement global quality and 8000 gearboxes in practices and 5S market operation A D) B Leading Turbo Gears Preferred partner Fully integrated company in India and to Domestic and plant with all SE Asia, market share **Multinational OEMs** critical operations of >80% in High in-house with **Speed Segment** state-of-the-art infrastructure



#### **Gears Business – Financial Performance**



- □ The growth in OEM sales has been 46% while the sales of spares, services, retrofitting including exports have been 34% in H1 FY 19.
- The activities during Q2 FY 19 have picked up as indicated by the order booking. Order booking also improved by 28% during the quarter as compared to same period of last year.
- Overall the market looks stable with positive signs from some sectors.
- 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 30<sup>th</sup> Sep 2018 – ₹ 1.86 billion (including ₹ 768 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



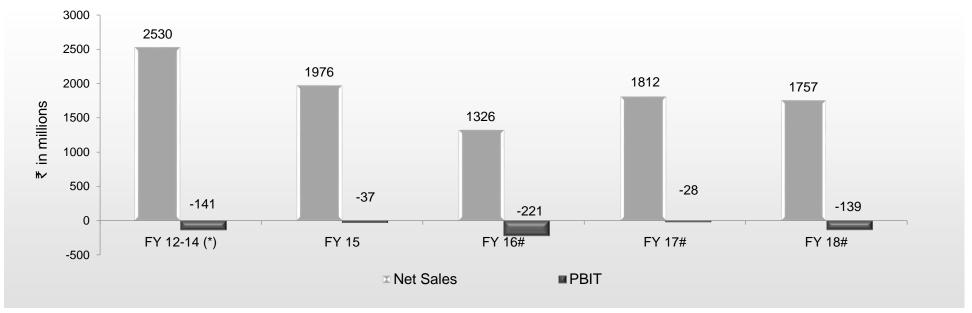


#### **Water Business - Overview**

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 FY 12-14\* - 18 months period from Oct 12 - Mar 14

- booking and achieved a closure of an order worth over ₹ 3.53 billion including O&M in Q2 FY 19.
- □ In line with its strong carry forward book, the Company
  □ The total order intake during the half year was ₹ 9.5 is expecting its revenue to scale up in the coming quarters, which will ensure better profitability
- □ The water segment continued its winning trend in order □ In some of the existing projects, there are continuing delays and cost escalations but these are on tapering down trends.
  - billion.

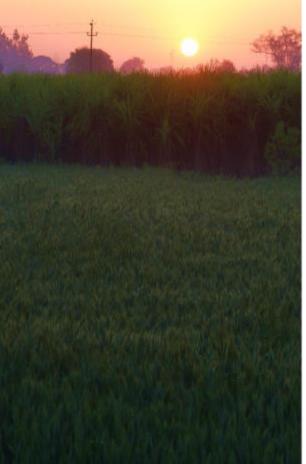
Outstanding Order Book as on 30<sup>th</sup> Sep 2018 – ₹ 14 billion

(including ₹ 5.2 billion towards O&M)





# 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 Central Government has announced a ₹ 5,500 crore package for the sugar industry which includes production aid to sugarcane farmers and transport subsidy to mills to facilitate exports which is capped at ₹ 1000/tonne for mills within 100 km of ports, ₹ 2500/tonne beyond 100 kms in coastal states, ₹ 3000/tonne for mills in non-coastal states or actual expenditure, whichever is lower.
- ☐ The initial estimates of planting for the next season suggest that there has been an increase of 8% in the total acreage under sugarcane in the country from 50.42 lakh hectare in SS 2017-18 to 54.35 lakh hectares in SS 2018-19.
- As per initial industry estimates sugar production is expected to be around 35 35.5 million tonnes of sugar in SS 2018-19. However, as per the latest industry estimates, the sugar production is expected to be 31.3 million tonnes. This is primarily due to Maharashtra, U.P. and Karnataka sugar production which has been impacted by pest as well as lower than expected rain fall in certain areas.
- ☐ U.P. is estimated to produce just over 12 million tonnes of sugar while Maharashtra to produce 9.5 million tonnes as per latest estimates.

- Sugar carry forward stock is estimated to be around 10.5 million tonnes as on Oct 1, 2018 and domestic consumption is expected to be 26 million tonnes in SS 2018-19. With exports consideration of 4-5 million tonnes of sugar, the closing balance of SS 2018-19 is expected to around 10.8-11.8 million tonnes.
- □ On account of estimated higher sugar production during SS 2018-19, the Government has announced a mandatory export of 5 million tonnes together with support of cane price assistance and transport subsidy.
- □ The Government of Uttar Pradesh has also announced various financial support to the industry to liquidate the sugar cane arrears – Cane price grant of ₹ 4.50 per quintal, and soft loan with partial interest subvention to pay the cane dues.
- The Government has announced Fair and Remunerative Price (FRP) of sugarcane for SS 2018-19 at ₹ 275 per quintal for a basic recovery rate of 10%; providing a premium of ₹ 2.75/qtl for each 0.1 % increase in recovery over and above 10%.
- □ 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 263 crore litres from C-heavy molasses.



# **Sugar Business – Industry Overview**

#### **International Sugar Market**

- As per recent forecast, the global sugar surplus scenario will continue to remain in the 2018/19 crop year, although the surplus is expected to shrink to 5.5 million tonnes as per global industry estimates.
- □ In Centre-South Brazil, sugar production till Oct 16, 2018 is lower by 25% as compared to corresponding period of last year while ethanol production has increased by over 22%
- In Thailand. Initial estimates forecast a sugarcane crop of around 122 million tonnes, which is 11% lower from the previous crop mainly due to farmers switching to rice production in the North East, and tapioca in the Centre and East and also due to diversion of sugarcane for biofuel. In 2018-19 sugar production is expected to be around 13.8 million tonnes, decline of 6% from 2017-18.



# **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	10.5
Production during the Season	25.1	24.4	28.3	25.1	20.3	32.4	31.3
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	41.8
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(#)	5.0
Total off-take	23.1	26.3	26.7	26.5	24.65	26.0	31.0
Closing Stock as on 30 <sup>th</sup> Sept.	9.2	7.5	9.1	7.7*	3.9	10.3	10.8
Stock as % of Off-take	39.8%	28.5%	34.0%	28.1%	15.8%	39.6%	34.8%

- · 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.



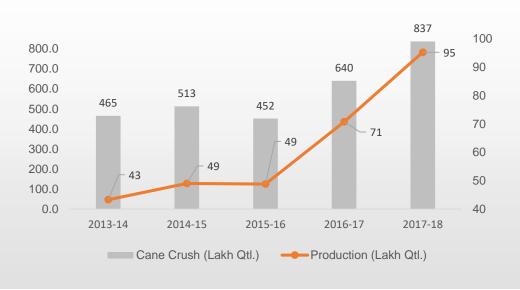
### **Sugar Business - Overview**

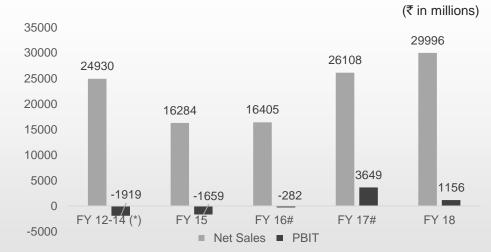
- Major facilities located in cane rich areas of Western Uttar Pradesh with more than 80% cane intensity – fertile and irrigated land
- Sugar cane catchment area for all sugar units under capal irrigation – both in Western & Central Uttar Pradesh -Lower dependency on monsoon
  - □ Closer to country's major sugar consuming markets better realizations & lower transportation cost. Long term relationship with ~ 250,000 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**





#revenue figures are including excise duty FY 12-14\* - 18 months period from Oct 12 – Mar 14

- □ The Company crushed the highest ever sugarcane crush of 8.37 million tonnes during 2017-18 which is a growth of 31% over last season.
- □ Further the Company achieved highest average recovery of 11.38% during SS 2017-18 resulting in a sugar production of over 95 lakh quintals which is a growth of 35% over last season.
- □ Sugar is being sold as per the release quota allocated by the Government for each month.

- In view of change in accounting treatment of off-season expenses, the profitability for the quarter and six months ended 30.09.2018 is lower by ~₹ 0.8 billion.
- □ The sugar inventory as on Sep 30, 2018 was 35 lakh quintals, which is valued at ₹ 30.1/Kg.
- □ During the quarter, sugar stocks have been revalued upward by ₹ 550 million (net).



# **Co-generation Business - Overview**

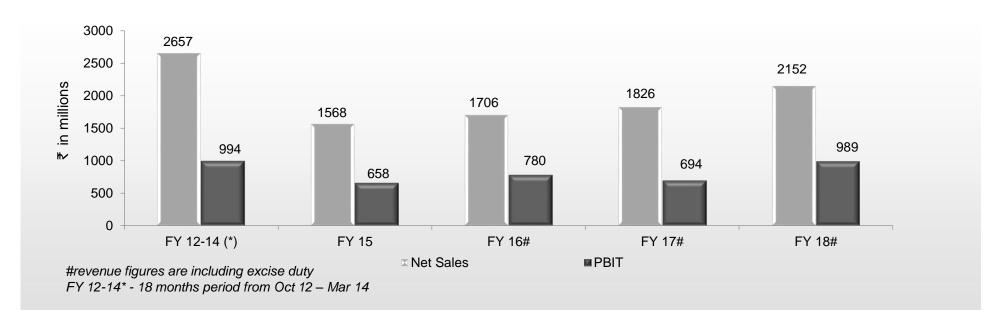
Triveni presently operates grid connected three cogeneration plants and three incidental co-generation plants located across five sugar units which facilitate export of surplus power to Uttar Pradesh Power Corporation Limited (UPPCL).

□ 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**



- ☐ The co-generation plants did not operate during the quarter.
- The profit of Co-generation during Q2 & H1 FY 19 was lower as compared to the corresponding period of previous year only due to change in accounting policy (by charging of off season expenses of ~₹72 million in this period, rather than deferring it as previously).





# **Distillery Business - Overview**

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

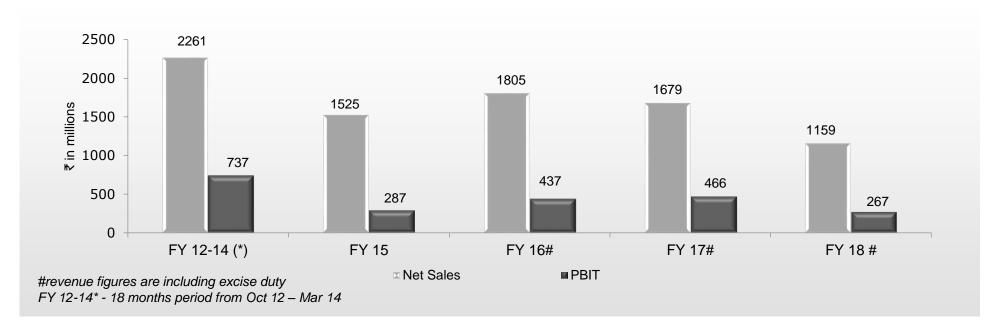
Strategically located in close proximity to two of its largest sugar units - Khatauli and Deoband, the distillery procures consistent supply of captive raw material.

☐ The distillery has a flexible manufacturing process allowing it to produce Extra Neutral Alcohol (ENA), Rectified Spirit (RS), Special Denatured Spirit (SDS) & Ethanol which are renowned for their high quality.





#### **Distillery Business – Financial Performance**



- □ During the quarter under review, the distillery production □ was higher by 241% while sales volume was higher by 207%, over the corresponding period of previous year. This increase was partially because of the non-operation □ of distillery for over a month during the last financial year, which had impacted the production in H1 FY 18. □
- □ PBIT in H1 FY 19 is significantly higher than corresponding period of previous year, mainly due to lower raw material cost, and higher sales at higher realization.

- The Company received 2.72 cr ltr of contract for ethanol supply from OMCs during 2017-18 (Dec 17- Nov 18) at an administered basic price of ₹ 40.85 /litre.
- The share of Ethanol sales in H1 FY 19 is 100% of the total sales volume, as against 88% in H1 FY 18.
- Project relating to setting up of new Ethanol plant at Sabitgarh sugar unit and incineration boiler at existing distillery are proceeding well and are likely to be operational in the Q1 FY 2020.











#### **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

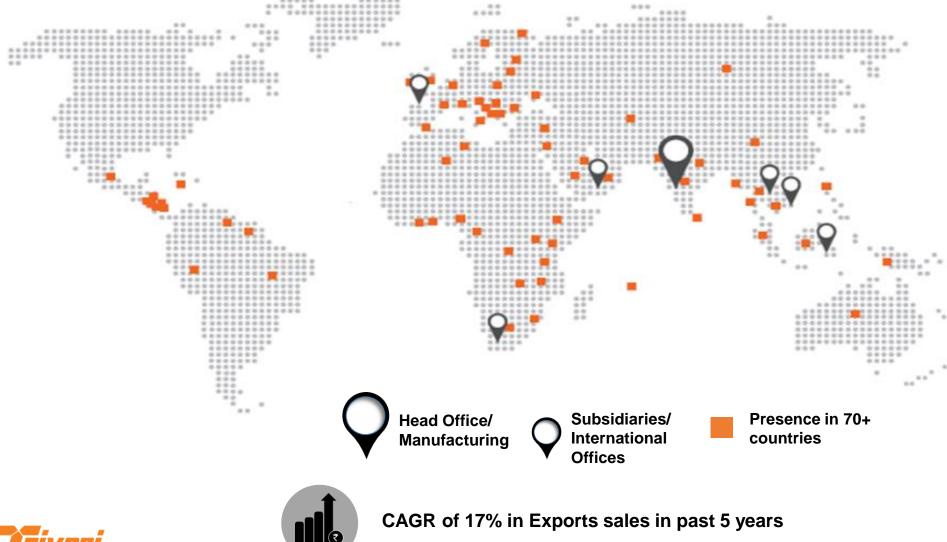
Presence in over 70 countries



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



#### **Global Footprint**





#### **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 Reheat Turbines 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



#### 360° Customised Service Portfolio

#### **1000+** Customers served annually





AMCs for Steam Turbines



Re-engineering



**OEM Expertise** 



Health Survey & Condition
Assessment



Reverse Engineering



Latest Equipment



Efficiency restoration



Overhauling



Highly Skilled Team



# **Industries & Applications**





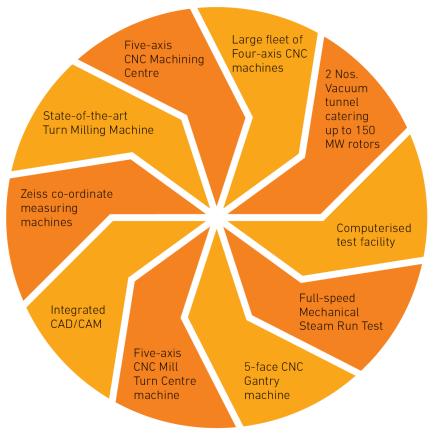
#### Infrastructure



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



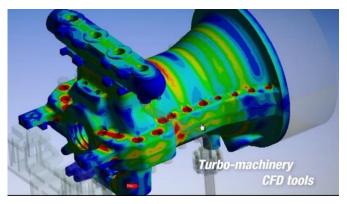


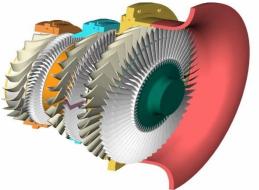
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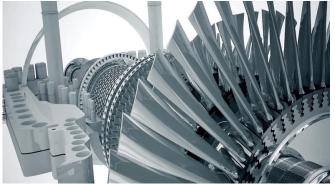
**AS9100D** 



# **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



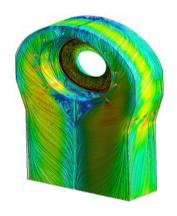
#### Cost-Efficiencies

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**

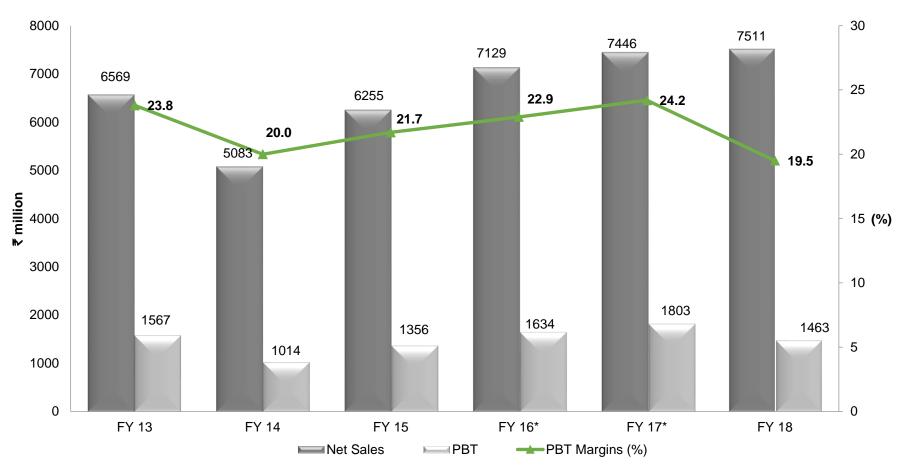
- SAP HANA
- Salesforce.com
- Primavera
- IOT Fleet RMD
- IOT- CNC shop
- ITO- Cost tools
- OTR- Primavera

#### **Technical software**

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



#### **Financial Performance**



Note: \* Consolidated



# Q2/H1 FY 19 Financial Performance (Consolidated)

Net Income from Operations ₹ 3.9 billion, a growth of □ ₹ 570 million is from international market in H1 FY 19 14% contributing to 47% in total aftermarket order PAT ₹ 491 million, a growth of 19% booking All time high turnover in First Half The period under review recorded a strong order 11% growth in order intake in H1 FY 19 inflow from the domestic market. The mix of During the quarter under review, even though the domestic order booking in H1 FY 19 has gone up to turnover is lower by 1%, for the half year, it is higher by 41% as compared to the corresponding period of last 14% when compared to corresponding periods of last year The overall consolidated closing order book at over ₹ year. During H1 FY 19, the mix of exports in total sales has 7.8 billion during H1 FY 19 is higher by 11% as increased from 48% in H1 FY 18 to 57% in H1 FY 19 compared to H1 FY 18 and 9% from the closing while the mix of domestic sales has decreased from order book as on 31st March 2018 52% in H1 FY 18 to 43% in H1 FY 19. Board approves Buy Back of shares up to ₹ 1 billion



in H1 FY 19 over H1 FY 18.

Aftermarket order booking registered a growth of 20%

through tender offer at a price of ₹ 150/share

# Q2/H1 FY 19 Financial Performance (Consolidated)

₹in million

	Q2 FY 19	Q2 FY 18	% variation	H1 FY 19	H1 FY 18	% variation
Net Income from	2172	2197	-1	3890	3414	14
Operations						
EBITDA	505	487	4	842	678	24
EBITDA Margin	23.2%	22.2%		21.6%	19.9%	
Depreciation &	48	41	17	96	91	5
Amortisation						
PBIT	456	446	2	746	587	27
PBIT Margin	21.0%	20.3%		19.2%	17.2%	
Finance Cost	0	1		1	2	
PBT	456	445	2	745	585	27
PBT Margin	21.0%	20.2%		19.1%	17.1%	
Share of Profit of JV	-2	-8		-4	31	
Consolidated PAT	301	284	6	491	412	19
<b>Consolidated PAT Margin</b>	13.9%	12.9%		12.6%	12.1%	
EPS (₹/share)	0.91	0.86		1.49	1.25	





- 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

- GETL recorded sales of ₹ 292 million in H1 FY 19
- The significantly lower than expected performance both in terms of turnover and profitability has been due to delay by the customer in taking delivery of a large turbine.
- The JV has a strong enquiry pipeline which we believe could get finalized in the coming quarters
- 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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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.

