



Websol 2.0

Websol Energy System Limited
Annual Report **2022-23**

Forward-looking statement

In this Annual Report, we have disclosed forward-looking information to enable investors to comprehend our prospects and take informed investment decisions. This report and other statements - written and oral - that we periodically make, contain forward-looking statements that set out anticipated results based on the management's plans and assumptions. We have tried wherever possible to identify such statements by using words such as 'anticipates', 'estimates', 'expects', 'projects', 'intends', 'plans', 'believes' and words of similar substance in connection with any discussion of future performance. We cannot guarantee that these forward-looking statements will be realised, although we believe we have been prudent in our assumptions. The achievement of results is subject to risks, uncertainties and even inaccurate assumptions. Should known or unknown risks or uncertainties materialise, or should underlying assumptions prove inaccurate, actual results could vary materially from those anticipated, estimated or projected. Readers should bear this in mind. We undertake no obligation to publicly update any forward-looking statements, whether because of new information, future events or otherwise.

Contents

04	Corporate snapshot
08	How we strengthened our financial performance over the years
10	Our quarterly performance, FY 2022-23
14	Chairman's overview
18	Technical review
20	Our integrated value creation report
24	The big picture
34	Business excellence
36	Human capital
40	What our employees have to say about working in our company
41	How Websol is strengthening its supply chain
42	How Websol is prioritizing health, safety and environment (HSE)
46	Management discussion and analysis
56	AGM-Notice
72	Board's report
100	Financial statements



WebSol 2.0

At Websol Energy System Limited, we are poised at an inflection point in our existence.

It took us nearly 30 years to build 250 MW of solar cell capacity.

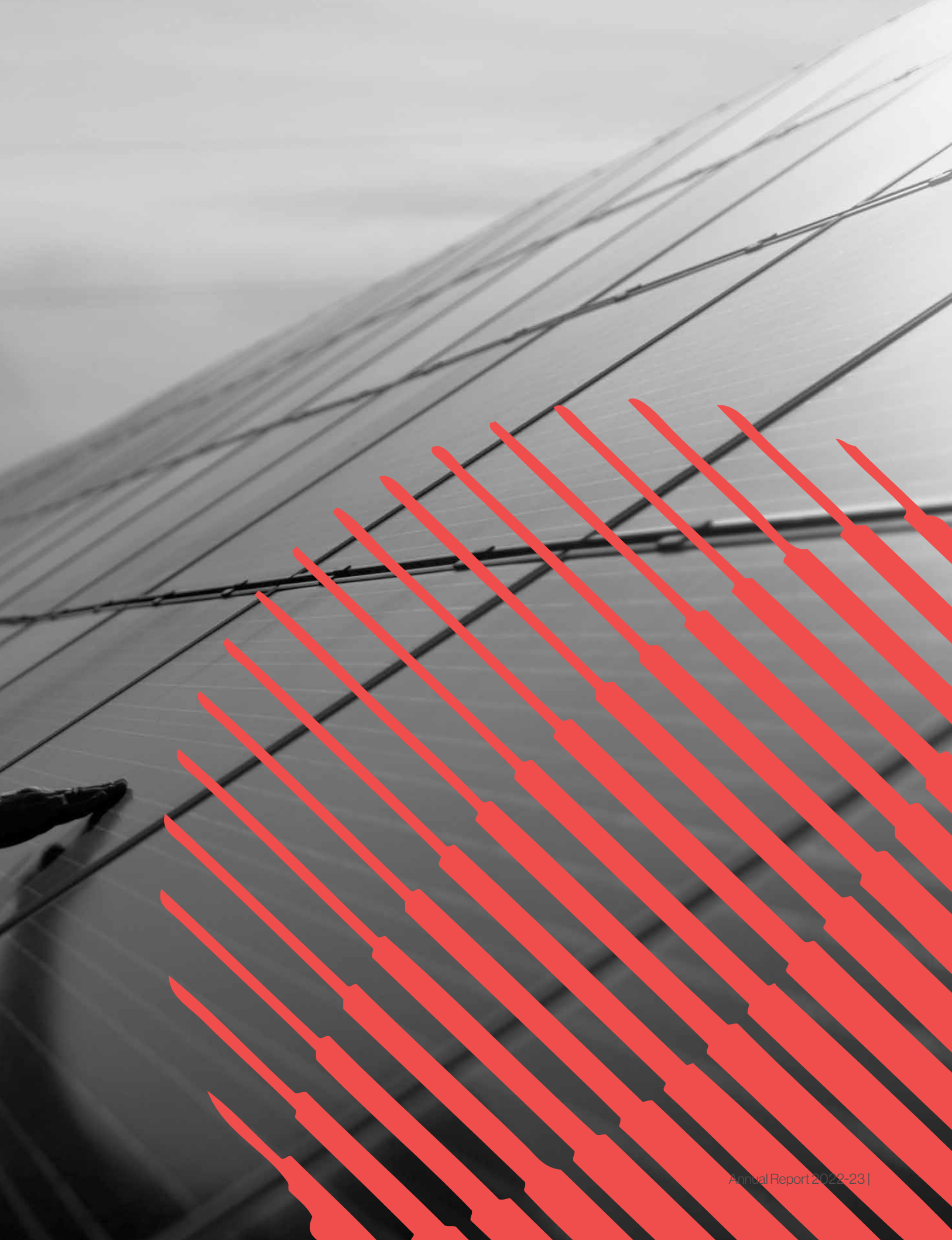
It is expected to take us just 2 years to build eight times this solar cell and module capacity.

When complete, the nature of our company will have transformed, creating a platform that is expected to create significant value for all our stakeholders.



PART ONE

What **we are** and what **we do**



Corporate snapshot

The Company has emerged as one of the prominent survivors of three decades of technology and financial turbulence in the global solar photovoltaic cell sector.

The Company has retained its position among the five largest solar cell manufacturers in India.

The time has come for the Company to make a substantial leap in technology and manufacturing capacity.

The Company is making an unprecedented investment to transform its scale and scope.

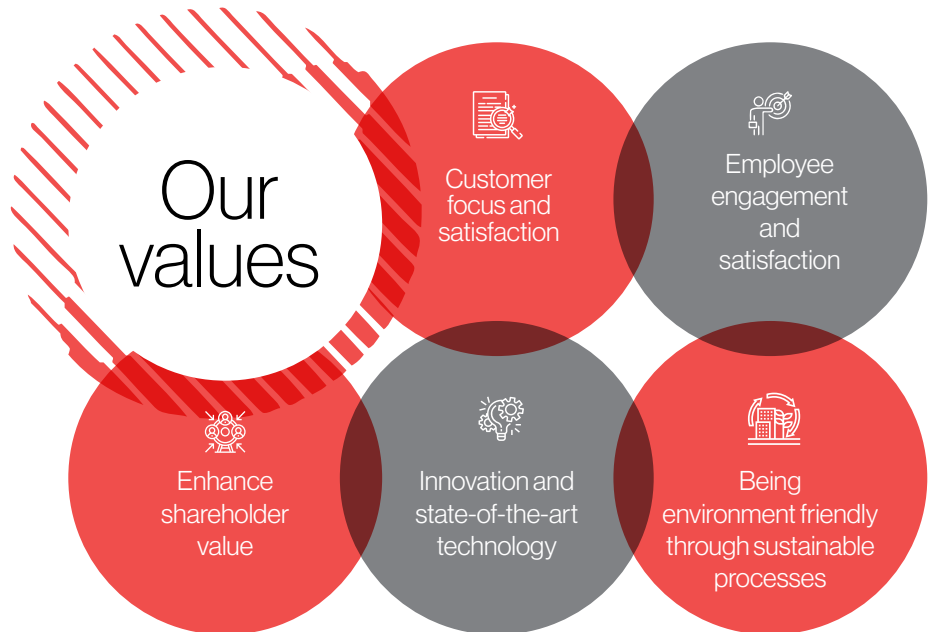
In doing so, the Company is poised to play an important role in the world's accelerated push towards renewable energy.

Our vision

To provide clean, reliable, environment friendly, competitive electrical energy around the world to save our planet earth for our future generations.

Our mission

To provide solar energy solutions with competitive product quality as per international standards and develop advanced products through cutting-edge technology that will create value for the customer and stakeholders, while improving the environment by the conservation of natural resources and implement pollution control measures along with caring for our employees.



Our research and development

The Company is counted among leading solar photovoltaic cell players in India. The Company's prominent presence is attributed to its extensive experience of nearly three decades. The Company initiated its operations as a fully export-oriented unit, catering to European (Germany and Italy) and US markets. The Company produced quality products for exports; its panels have been successfully in operation for more than a quarter of a century.

Our research and development

The Company has invested in research to graduate to a new technology and optimise power generation, enhance generation yield and customise products around downstream requirements.

Our advanced technologies

The Company allocated resources to embrace state-of-the-art technologies, adapting swiftly to change. This effort

empowered the Company to manufacture top-tier photovoltaic solar cells and modules at its advanced facility in Falta SEZ.

Our certifications

The Company holds an ISO 9001:2015 certification, highlighting its dedication to provide world-class products to customers. The solar modules adhere to IEC 61215, IEC 61730 and UL 1703 standards. Additionally, the Company possesses environmental certifications, including ISO 14001:2015 for environmental compliance and OHSMS 45001:2018 for occupational health and safety. Our modules also carry the BIS certification, enabling their use in Indian solar energy initiatives.

Our certifications

As of 31st March, 2023, the Company had a workforce of 225 employees, including knowledge professionals, with an average employee age of 40 years.

Our milestones

1990-91

● **Mr. S. L. Agarwal**, founder and MD of Websol Energy System Limited, initiated the business.

1995-97

● **Production** evolved to 6" wafers and modules up to 95 Wp. A quality certificate from ISPRA IEC 61215 standards was obtained

2000-01

● **Production** extended to the manufacture of 8" wafers. Module output increased to 125 Wp for type W1000. Capacity was enhanced to 3 MW.

2002-04

● **International** certification obtained for W1000 as per IEC 61215 standards. UL703 listing for all W900 type modules. Capacity was enhanced from 3MW to 5MW.

2003-04

● **Installed** capacity expanded from 3MW to 5 MW. UL 1703 listing was received for W1000 type modules. Production of 160/190Wp modules began

2005-06

● **Capacity** enhanced from 5MW to 10 MW. Started the commercial production of W1600 and W2000R. International certification from TUV safety class II for W2000 and W1600 type modules. Industrial site finalised in SEZ Falta, West Bengal, for 120 MW expansion.

2006-07

● **The** total installed capacity of the Company increased to 20 MW. Three new products were launched, including W2000R.

2007-08

● **International** certifications IEC 61215 and IEC 61730 were obtained for 180/220Wp and UL and CSA listing for 180/220Wp modules. Installed PECVD technology for silicon nitride anti-reflective coating at the Salt Lake plant in Kolkata. Cell efficiency reached 16.5%-plus.

2009-10

● **The** total installed capacity of the Company enhanced to 60 MW. State-of-the-art production facility installed in Falta Special Economic Zone in West Bengal. Product migrated from the processing of 125x125 mm to 156x156 mm wafers; enhanced the power output of modules to 290W.

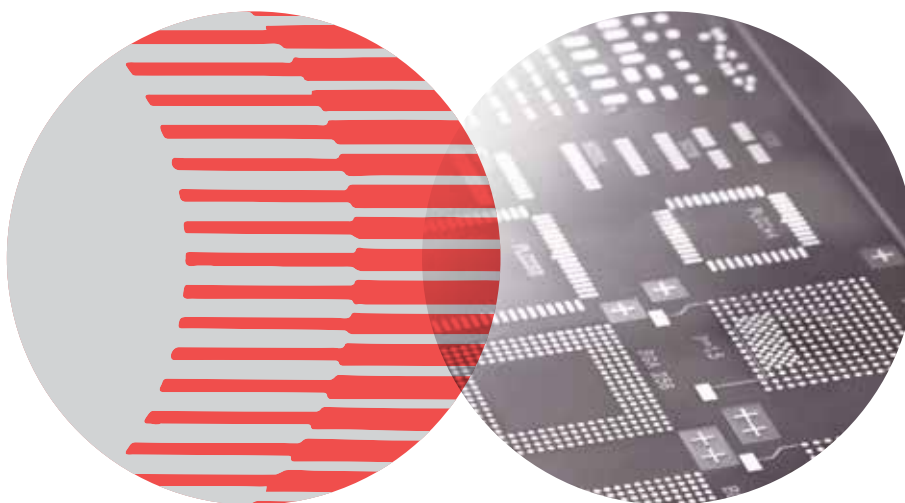
The total installed capacity of the Company increased to 120 MW.

2011-12

● **Engaged** in a tie-up with Renesola (China) for two years to produce cells and modules in their name. The processing of quasi-mono wafers commenced.

2012-13

● **Installed** a new texturizing line to graduate to the manufacture of cost-effective multi-crystalline solar cells. Installed capacity



2014-15

enhanced to 180 MW.

2015-16

Installed new process machines in the cell line to optimise efficiency. Cell efficiency enhanced to 18.30% average. Trials for 4BB cells began.

2016-17

Installed a new printing line with higher productivity along with PECVD, Diffusion and Inox machines. Capacity enhanced to 240MW.

2017-18

Installed an advanced cell printing line for the commencement of the 5BB cell production. Existing module line was transformed to a fully automated high tech 250 MW module line. The Company manufactured more than 1,00,000 units in a year (corresponding to CO2 emission reduction of 97,659 kgs) after the installation of a 120KW solar power facility connected to a grid in April 2017.

Achieved highest cell and module efficiency with the help of fortified capacity, tuned machines and processes. Process chemicals and use of advanced materials like paste and screens were reduced. The new module line was operated

2018-19

with enhanced productivity, increased product and quality efficiency with lower rejection.

2019-20

Owing to lower raw material costs, process improvements, enhanced productivity and shop floor energy savings, the Company reduced the cost of solar cell manufacture by 8%.

2020-21

Websol increased the wafer size from 157x157mm to 158.75 x158.75mm multi-crystalline, enhancing 7 watts in the 72-cell module. The Company achieved front Ag paste saving with increasing throughput from printing screens, enhancing cost effectiveness by 10%. The Company achieved the highest cell line production

2021-22

Websol increased the wafer size from 157x157mm to 158.75 x158.75mm multi-crystalline, enhancing 7 watts in the 72-cell module. The Company achieved front Ag paste saving with increasing throughput from printing screens, enhancing cost effectiveness by 10%. The Company achieved the highest cell line production

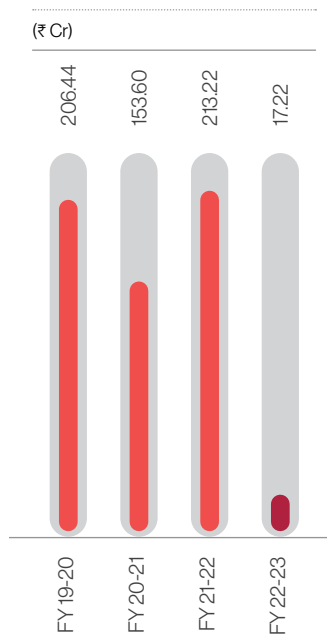
2022-23

Websol fully utilised its multi-crystalline cell equipment and strategically prepared for capacity expansion by upgrading to Mono PERC technology, aligning with global standards.

Adopted advanced Mono PERC technology to achieve 23% plus cell efficiency in 182 mm and 210 mm square format, Solar PV Module upgraded to 540Wp and 660Wp.

How we strengthened our financial performance over the years

Revenues



Definition

Growth in sales volume after deduction of taxes (if any).

Why is this measured?

It indicates sales trend volume and the extent of the customer's acceptance of the Company's products.

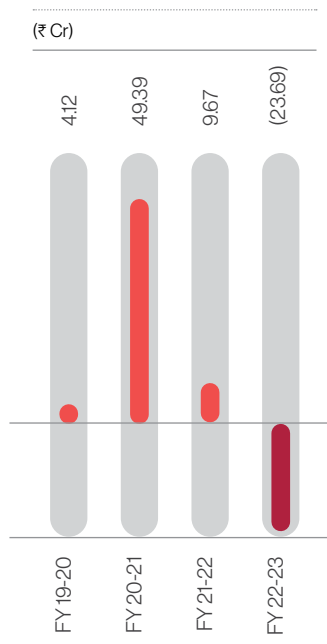
Performance, FY 2022-23

The revenue from operations decreased by 91.92% to ₹17.22 Crore during FY 2022-23 on account of a discontinuation of operations following the decision to graduate to a superior technology.

Value impact

Develops a strong growth foundation on which profits can be built, the temporary slowdown notwithstanding.

Net profit



Definition

Profits earned during the year net of all expenses and provisions.

Why is this measured?

It indicates the robustness of the business model.

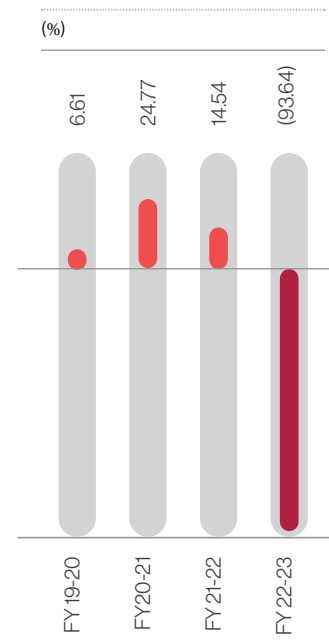
Performance, FY 2021-22

The Company reported a decrease in profit after tax on account of a discontinuation of operations following the decision to graduate to a superior technology.

Value impact

Enables the sustainability of the Company's growth engine and ensures the availability of cash for reinvestment, once the Company resumes operations.

EBITDA margin



Definition

EBITDA margin is a profitability ratio, which estimates the Company's operating profits with respect to the percentage of its overall revenues.

Why is this measured?

The EBITDA margin highlights the earnings of the Company (prior to accounting for interest and taxes) on each rupee of sales.

Performance, FY 2022-23

The Company's EBITDA margin decrease was on account of a discontinuation of operations following the decision to graduate to a superior technology.

Value impact

Represents a significant cushion in the business, which, when amplified by scale, enhances the surplus