

# MISSION --- 120 MW.

Webso! Energy Systems Limited  
Annual Report, 2009-10



## Forward-looking statements

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 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.

We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise.

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**IN 1995, WE WENT INTO THE  
MANUFACTURE OF SOLAR  
PHOTOVOLTAIC CELLS WITH AN  
INSTALLED CAPACITY OF 1 MW.**

**BY 2006, WE HAD GROWN OUR  
CAPACITY OUT OF INTERNAL  
ACCRUALS TO 10 MW.**

**BY 2012, WE EXPECT TO GROW  
OUR CAPACITY TO 120 MW.**





**GREEN ENERGY IS ONE OF THE  
FASTEST GROWING SECTORS IN  
THE WORLD.**

**SOLAR ENERGY IS PERHAPS THE  
FASTEST GROWING SEGMENT  
WITHIN THE GREEN ENERGY  
SECTOR.**

**WEBSOL IS ONE OF THE FASTEST  
GROWING SOLAR ENERGY  
COMPANIES IN INDIA.**

## About us

- Websol Energy Systems Ltd is a leading manufacturer of solar photovoltaic monocrystalline cells and modules in India.
- The Company's integrated production facility is located in Falta SEZ, Kolkata.

## Certifications

- UL 1703 from CSA (specifically required for the USA and Canada)
- IEC 61730/61215 and EN 61730/61215 from TUV Rheinland
- ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007 from DNV

## Vision

To provide clean and dependable solar energy that will sustain the environment and improve global living standards

## Mission

To provide solar energy solutions as per international standards and develop advanced and cost-effective products through cutting-edge technology that will create value customers and stakeholders while improving the environment and caring for our employees

## Core values

**Customer focus:** All our actions and resources are focused on the customer, ensuring that the services they receive represent value for money. We treat our customers with dignity and respect while optimising their choice and giving them a stronger voice in designing our products and services. We feel that only a satisfied customer is the key to long-term success.

**Employee engagement:** Being customer-focused begins with employee engagement. Our employees are our biggest asset and we believe in boosting their morale leading to our success. We encourage best practices among our employees as they grow with us. We like them to be mentally and physically present at the workplace, to their business enthusiastically and energetically.

**Innovation:** We believe in being innovative to address the ever-changing needs of our customers with speed and agility. Innovation allows us to present a better product along with unmatched service to enhance overall customer satisfaction.

**Transparency:** For us, transparency implies openness, communication and accountability towards our suppliers, employees, customers and stakeholders. Clear and precise communication forms the footboard of our openness to remove all barriers and facilitate free and easy access to all our actions, products and services.

**Environment-friendly:** We are an environment-conscious company with continuous improvement methodologies and efficient production and business processes. Our vendor selection and manufacturing processes are based on environment protection, workplace safety and employee health. We work towards a cleaner, greener and healthier future for all of us.



## MILESTONES

### 1995-97

- Commenced production with technical support from an Italian company
- Processed five-inch wafers
- Installed a 1 MW annual capacity for cells and modules

### 1998-99

- Processed six-inch wafers to produce modules up to 90 Wp
- Received IEC 61215 certification from JRC-ISPRA

### 2000-01

- Stepped up processing capacity to eight-inch wafers
- Extended module range to 120 Wp
- Increased installed capacity to 3 MW

### 2002

- Received the IEC 61215 standard certification for all W1000 modules from JRC-ISPRA
- Obtained UL 1703 listing for all W900 type modules

### 2003

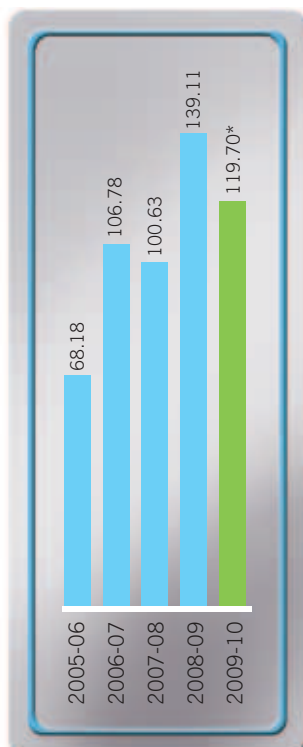
- Enhanced installed capacity from 3 MW to 5 MW
- Obtained UL 1703 listing for W1000 type modules
- Commenced the production of 160-190 Wp modules

### 2004

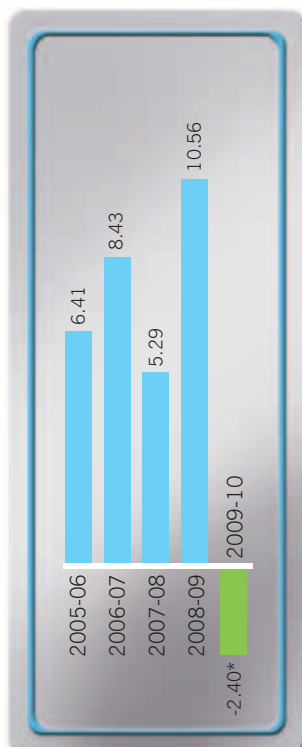
- Initiated the commercial production of W1600

## HIGHLIGHTS, 2009-10

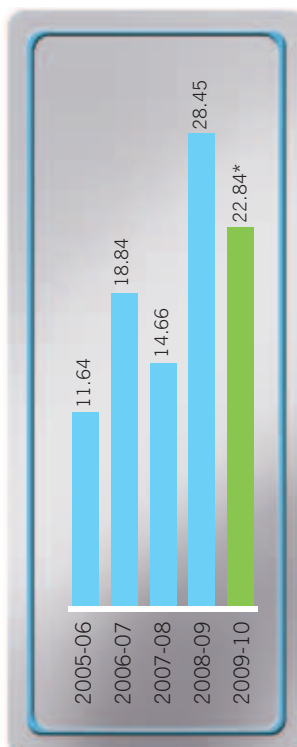
**Sales turnover**  
(Rs. crore)



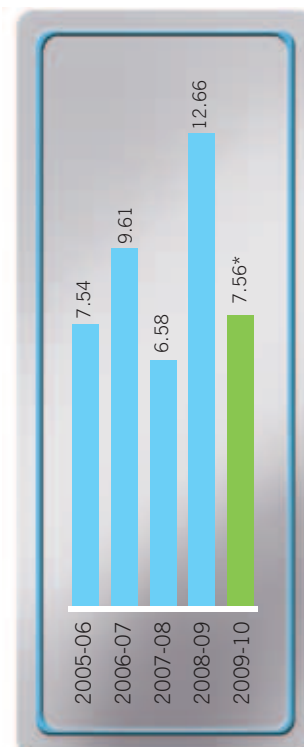
**Profit after tax (PAT)**  
(Rs. crore)



**EBIDTA**  
(Rs. crore)



**Cash profit**  
(Rs. crore)



\* Annualised figures for the 15 months ended from 01.04.2009 to 30.06.2010.



- Formed an in-house R&D team to enhanced cell efficiency

## 2005

- Introduced three new products (including W2000R)

## 2006

- Expanded installed capacity from 5 MW to 10 MW
- Received JRC-ISPRA IEC 61215 standard certification as well as UL certification for all products
- Finalised Falta SEZ, West Bengal, for a proposed 120 MW expansion

## 2007

- Surpassed the Rs.100 cr mark in turnover

- Graduated from the manufacture of solar cell using reclaimed technology to fresh solar-grade wafers

- Embarked on a phased capacity expansion from 10 MW to 120 MW

## 2008

- Commissioned the state-of-the-art PECVD technology
- Achieved cell efficiency of more than 16.50%
- Introduced new modules of W1750 series (175 Wp) and W2100 series (220 Wp)
- Commenced civil work at the Falta SEZ site

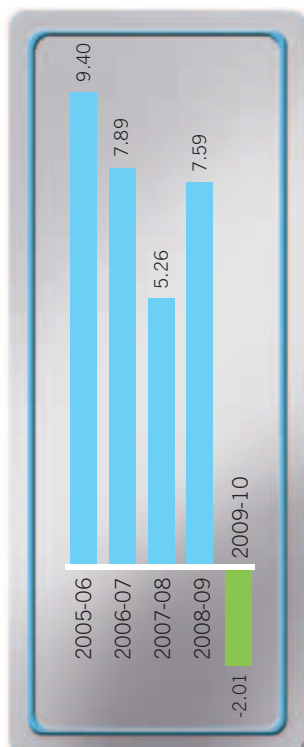
## 2009

- Installed, commissioned and started production of a 30 MW cell and module line at Falta SEZ
- Received IEC 61215 and 61730 certification for 180 Wp and 225 Wp modules
- Established representatives in the US and Germany

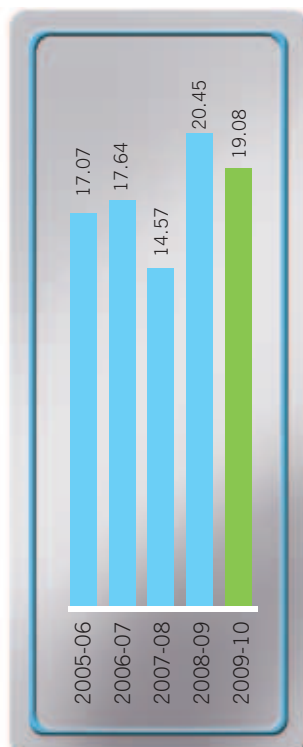
## 2010

- Embarked on capacity expansion from 40 MW to 60 MW
- Achieved a cell efficiency of 17.80%
- Commenced six-inch cell, W2300 series (240 Wp) and W2800 series (290 Wp) module production
- Received certification from DNV (Det Norske Veritas) for ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007

**PAT margin**  
(%)



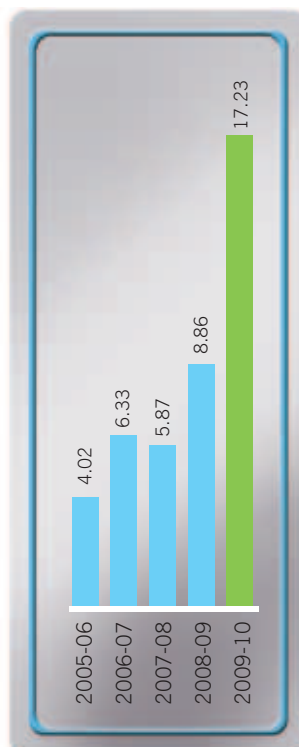
**EBIDTA margin**  
(%)



**Gross block**  
(Rs. crore)



**Production**  
(In MW)



## Managing Director's overview



**THE BIG MESSAGE TO OUR SHAREHOLDERS IS NOT AS MUCH ABOUT WHERE WE ARE AT PRESENT AS A COMPANY BUT THE DIRECTION IN WHICH WE ARE HEADED.**

*Dear Shareholders,*

The big message to you is not as much about where we are at present as a company but the direction in which we are headed.

Before I expound on our corporate strategy, permit me to explain the industry environment.

Big is getting bigger. Low cost is getting cheaper.

No two sentences encapsulate the reality of the solar photovoltaic industry more faithfully than these.

For some good reasons: the global solar cell industry has grown at a CAGR of 60% the last five years. Besides, the Indian scenario has turned favourable with a forecasted national demand of 20 GW through the JNNSM policy by 2022. This indicates that there is a large appetite for solar energy across the world.

Even as the global solar photovoltaic industry acquires a growing scale faster than ever, there is still a viability gap between the installation costs of solar and thermal energy sources. The priority lies in ongoing cost reduction, which can be achieved through superior Research and Development on the one hand, and an aggressive growth in installed capacity on the other, facilitating a competent

coverage of fixed costs.

Two realities are catalysing the industry. One, an increasing emphasis on the use of green energy in our daily lives and a number of governments allocating larger budgets for related investments are catalysing the demand for solar energy cells and modules in a bigger way than ever before. Two, there is an urgent need to reduce costs so that unsubsidised solar energy can become competitive with thermal energy.

Both these realities can be achieved through rapid investments in scale. The faster companies invest in their installed capacities, the quicker they will address the growing demand for solar energy products and reduce their production costs. As a result, the option of growth is not merely recommended in our business but is imperative for our survival.

**2**

As a future-focused organisation, we have outlined a strategy to grow with speed and economy, reinforcing our competitiveness.

This is our strategic blueprint: it took us almost 12 years to grow from 1 MW to 10 MW; three years to grow from 10 MW to 40 MW in 2010 and





We expect to grow our peak revenues to Rs 400 cr once 60 MW is fully commissioned and to Rs 800 cr when we commission, 120 MW thereafter.

it is expected to take us another two years to treble our installed capacity to 120 MW. Besides, we grew our capacity from 10 MW to 40 MW at a project cost of Rs 210 cr with a debt component of about 60% of the project cost; we expect to achieve the subsequent rounds of capacity growth for a considerably lower investment with a declining proportion of debt. The result will be a company with a declining capital cost per solar cell of installed capacity on the one hand, and rising interest cover on the other. We believe that this combination will make all our prospective growth robust and sustainable.

I am pleased to state that there is much to show for this strategy. The Company embarked on a capacity expansion from 10 MW (at the Salt Lake facility) to 40 MW (at the Falta SEZ), which has been fully commissioned, the global slowdown notwithstanding.

The Company responded effectively on the global downtrend: it capitalised on the decline in asset and raw material costs, resulting in attractive viability. Besides, the staggered project implementation meant that the Company postponed its commissioning from a time when realisations were depressed to a time when these

rebounded attractively. The Company expects to present the impact of lower raw material costs and better realisations as soon as it scales its production to rated capacity utilisation over the coming months.

The Company expects to reinforce this competitive positioning by stabilising production of this expanded capacity, generating an attractive cash flow and immediately embarking on the second expansion round of 40 MW to 60 MW, and thereafter scaling capacity yet again to 120 MW by 2011-12. The smooth commissioning of the 30 MW capacity in the last few months gives the Company the optimism of economic asset sourcing, timely project implementation and viable productivity.

The result is that we are at the cusp of attractive, profitable and sustainable growth across the immediate future.

### 3

The Company is optimistic of its prospects of profitable scale-up and value-generation for the following reasons:

- The Company is concentrating all its production capacity at the Falta SEZ, which enjoys attractive tax and other fiscal benefits.

- The Company invested in infrastructure (land, buildings and facilities) capable of supporting an expansion up to 120 MW at the Falta SEZ, with progressively declining project implementation tenures, going ahead.
- The Company invested in the best global technologies, expected to improve cell efficiency from 17.80% to 18.50%, among the global best in the industry.
- The Company widened its product mix and graduated to the higher end following the development of the 290-watt module.

### 4

So what will this rapid capacity creation to 60 MW and 120 MW thereafter do for our Company?

We expect to grow our peak revenues to Rs 400 cr once 60 MW is fully commissioned, and to Rs 800 cr when we commission 120 MW thereafter.

The result is that we expect to report sizeable growth without making significant net worth investments from this point onwards, resulting in enhanced value in the hands of all those who hold shares in our company.

**SL Agarwal,**  
*Managing Director*

## Review



**“THE PRIVATE PLACEMENT THAT WE MADE TO FUND THE FIRST ROUND OF THIS EXPANSION – 10 MW TO 40 MW – WILL KICKSTART A CYCLE OF GROWTH AND SUSTAINABLE PROFITABILITY. I AM OPTIMISTIC THAT THIS WILL ENHANCE VALUE FOR OUR SHAREHOLDERS, VINDICATING OUR RAPID EXPANSION AND USE OF SELECT TECHNOLOGY.”**

Mrs. S Vasanthi, Director (Technical and Marketing),  
explains the Company's prospects

### Q. What was the big message related to the Company's performance in 2009-10?

**A.** The big picture is that the Falta SEZ became fully operational during the year under review following the infusion of large capital and sophisticated technology. This commissioning represents a watershed in the Company's existence. The Company commence the manufacture of solar cells and modules in India by investing in the cost-effective reclaimed wafer technology, which progressively resulted in a low capital cost per MW and a lower consumption of raw materials compared with alternative technologies. However, the Company took a prudent call and decided to shift to a new technology as growing production and accessing a larger quantity of recycled

silicon wafers was not going to be sustainable. In view of this, the Company graduated to the monocrystalline solar grade technology and four-folded its installed capacity. I am happy to state that, for a company that used a different solar cell technology earlier, the technology migration was smooth and reflected in a high quality of the end product.

### Q. In what way?

**A.** In our business, the challenge lies in stabilising production at higher asset utilisation levels within the shortest time from start-up. We have fair credentials to present in this regard: we did well to upgrade module production with an output of 280 Wp, production of six-inch cell with an output of 4.25 Wp and a corresponding cell efficiency of

17.80%. This compares favourably with erstwhile numbers of 175 Wp, five-inch cells with an output of 2.6 Wp and a cell efficiency of 16.80%.

### Q. Is Websol's new technology globally competitive?

**A.** It very much is. Consider the following advantages: these cells and modules enjoy a life span of about 25-30 years with attractive potential for efficiency improvement and price reduction on the one hand, and higher raw material availability on the other.

This is reflected in the numbers: our advanced Research and Development helped improve cell efficiency from 17% to 17.80% – at par with the best global standards – through optimised production parameters, the use of best monocrystalline silicon wafers, enhancing