

Websol Energy System Limited (Formerly : Websol Energy Systems Limited) Annual Report 2011–2012

# **DISCLAIMER**

The disclosures of forward-looking information contained in this annual report are made to enable investors to comprehend the prospects and make informed investment decisions. This report and other statements – written or oral – may contain forward-looking statements that set out anticipated results based on the management's plans and assumptions. Maximum effort has been made to identify such statements by using words such as 'anticipates', 'expects', 'projects', 'intends', 'plans', 'believes' and words of similar substance in connection with any discussion of future performance. However, the entire realisation of these forward-looking statements cannot be guaranteed, although the assumptions have been prudent enough to rely upon. The achievement of results is subject to risks, uncertainties and unforeseen events. 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. The management does not undertake any obligation to publicly update any forward-looking statement, whether as a result of new information, future event or otherwise.

# **CONTENTS**



In 2011–12, the global PV industry was severely impacted by a decline in realisations and demand. We believe that this blip is temporary and with solar energy costs declining, demand will rebound. Websol has prepared for this eventuality.

The company has doubled its installed PV capacity to 60 MW (which can be further doubled at a marginal capex), invested in world-class quasi-mono technology and introduced breakthrough products.

Our hope is derived from stable PV prices in the first quarter of 2012–13 that could lead to brighter sectoral sunshine.



WEBSOL IS ONE OF INDIA'S LARGEST SOLAR P.U. CELL AND MODULE MANUFACTURERS WITH ON ONNUAL CAPACITY OF SO MW.



# **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 for the customer and stakeholders while improving the environment and caring for our employees

# Presence

The Company's integrated production facility is located in the Falta SEZ in Kolkata

# Legacy

- Websol is a leading Indian manufacturer of photovoltaic mono-crystalline solar cells and modules with a vision to address global energy needs by providing cost-effective renewable energy generation sources
- The Company was incorporated in 1990 by Mr. S.L. Agarwal and commenced commercial production in 1995

# **Products**

The Company's PV cells and modules are used in domestic and commercial purposes. Products range from 5 to 305 watts, catering to the needs ranging from rural electrification to those of large power plants

# **Accreditations**

- UL 1703 from CSA (specifically required for the US and Canada)
- IEC 61730/61215 and EN 61730/61215
   from TUV Rheinland
- ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007 from DNV
- CSA mark for W1750 and W2100
- ISO 9000:2000 from UL
- PV GAP certification
- PV Cycle certification

## **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 assets and we believe in retaining their morale to contribute to our success. We encourage best practices among our employees as they grow with us 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 provide a superior product along with unmatched service to enhance 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 facilitating free and easy access to all our actions, products and services.

### Environment-friendly

We are an environmentally-conscious company with methodologies geared towards continuous improvement and more efficient production and business processes. Our vendor selection and manufacturing processes are based on environmental protection, workplace safety and employee health. We are working towards a cleaner, greener and healthier future.

# MILESTONES

# 1994-1997

- Technical collaboration with Helios Technology, Italy
- Commenced operations with 1 MW installed capacity and processed 4 and 5-inch wafers

# 1998-1999

 Received international certification from JRC for IEC 61215 standards for 90Wp module

# 2000-2001

■ Processed 8 inch wafers and converted them into 154x154 mm solar cells

Increased installed capacity to 3 MW

# 2002-2004

- Received international certification for W1000 as per IFC 61215 standards
- Achieved UL 1703 listing for all 900W modules
- Expanded capacity from 3 MW to 5 MW

# 2005-2006

- Received IEC 61215 and IEC 61730 international certifications for 180 W/220Wp
- Achieved UL and CSA listing for

180/220Wp modules

- Installed PECVD technology for silicon nitride anti-reflective coating at the Salt Lake (Kolkata) plant
- Appointed EPC contractor for the Falta plant
- Achieved 16.5% plus cell efficiency

# 2007-2008

- Increased capacity from 5MW to 10 MW
- Commenced commercial production of W1600 and W2000R modules
- Received an international

certification from TUV Safety Class II for W2000 and W1600 type modules

 Finalised the industrial site at the Falta SEZ for the 120 MW expansion

# 2009

- Installed and commissioned30 MW cell and module line
- Commenced solar PV cells and trial production of modules in June/July 2009
- Received IEC 61215 and IEC 61730 certifications for 180 Wp and 225 Wp modules
- Established representative



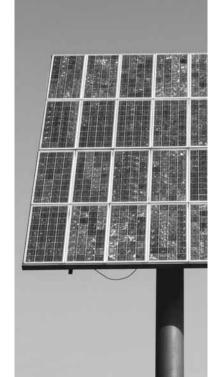
offices in the US and Germany

# 2010

- Embarked on capacity expansion from 40 MW to 60 MW
- Achieved cell efficiency of 18.30%
- Commenced 6-inch cell, W2300 series (240 Wp) and W2800 series (290 Wp) modules production
- Received certification from DNV (Det Norske Veritas) for ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007

## 2011

- Introduced quasi-mono cells
- Received PV cycle certificate



# **MILESTONE INSTALLATIONS:**

- Bidyut Bhavan, Kolkata, West Bengal
- WBREDA Building, Kolkata, West Bengal
- Sagardeep, South 24 Parganas, Kamalpur, West Bengal
- Sagardeep, South 24 Parganas,
- Sagardeep, South 24 Parganas,

West Bengal

- Sagardeep, South 24 Parganas, Haradhanpur Mandirtala, West Bengal
- Science City, Kolkata, West Bengal
- MGM Eye Institute, Chattisgarh
- M&B Switchgear, Madhya Pradesh
- Pan Time Finance Company, Odisha
- JW Marriot, New Delhi
- Pokhran Solaire Direct, Rajasthan
- APCA, Gujarat

# **WEY COMPETITIVE STRENGTUS**

# **PRODUCT PORTFOLIO**

Websol offers products ranging from 5 Wp to 305 Wp, one of the industry's most comprehensive portfolios. Solar cells manufactured by the Company are of 5 inches and 6 inches and solar modules from 5 Wp to 305 Wp.

# **EXPERIENCE**

The Company enjoys a rich 18-year sectoral experience and has emerged as a dependable global player with a presence in over 17 countries.

# **QUALITY STANDARDS**

Websol meets global standards and specifications for manufacturing photovoltaics and testing. Its modules are approved by IEC 61215, IEC 61730 and UL 1703 standards as well as FM requirements. These certifications have been awarded by various reputed institutions like Underwriters Laboratories. TUV Rheinland and CSA International.

# **BRAND EQUITY**

With in-depth research and cutting-edge technology, the Company has achieved a high cell efficiency of 18.60% in 2011–12. Superior product quality backed by timely supplies ensures a strong price-value proposition, leading to higher dependability and brand reputation.

# **VENDOR RELATIONS**

The Company procures the best quality mono-crystalline silicon wafers from leading manufacturers towards achieving superior efficiency standards

# **TECHNICAL EXPERTISE**

The Company has established technological expertise in mono-crystalline solar grades, which results in increased yields, cell efficiency and capacity. It is also planning for tie-ups with leading international research-based organisations for technology and efficiency upgradation



# FROM THE CLORMONS DESH

# Dear shareholders,

he period 2011–12 (comprising 15 months from April 2011 to June 2012) witnessed subdued solar photovoltaic cells demand despite the Indian solar market witnessing significant growth with the installed solar PV capacity strengthening from under 20 MW to more than 1000 MW over the last two years. Some key events that transpired during the year comprise:

Pricing: We witnessed a substantial over 60% fall in raw material prices, which percolated down to reduce finished goods prices. The Company suffered a huge blow owing to losses in outstanding contracts, pre-order contracts and production. Raw material prices collapsed 60% between April-November 2011, moderating end product selling price from ₹14 per unit (three years ago) to ₹4 per unit now.

Foreign exchange: Volatility in foreign exchange affected profitability with the result that we suffered a forex loss of ₹60 cr in 2011–12.

# Subdued demand in Europe:

We witnessed slackening demand in the EU region on account of its economical troubles. However it is expected that this highly fragmented industry is likely to consolidate on account of increasing collaborations between Indian and European firms where subsidy cuts in key markets like Germany and Italy will result in a global oversupply of solar panels.

Working capital challenges: Despite rising demand, the Company had to deny orders because of absence of adequate working capital. We expect inventory losses to stabilise by 2012–13 and this is already reflected in the fact that we have witnessed price stability in first quarter ending September 2012.

**Debt restructuring:** With prices falling drastically and capex invested three years ago, we had to renegotiate debt as interest rates remained high. In March 2012, we underwent bank restructuring in which our working capital loans were converted to

We ventured into the production of mono-like wafers, which are typically low-priced, to enter the lower end of the market.

Websol's scalable installed capacity of 60MW can be easily doubled at minimal capex and within minimum time

term loans with a moratorium of two years and repayment period of seven years. The capex loans were also restructured with a moratorium of two years and repayment period of seven years.

# New product launches:

We ventured into the production of monolike wafers, which are typically low-priced, to enter the lower end of the market.

# **DEMAND DRIVERS**

The demand for solar power is rising by the day. This is driven by:

# Renewable purchase obligations (RPO):

The Indian Government has imposed a renewable purchase obligation that mandates distribution companies, open access consumers and captive consumers to buy a certain percentage of their total power requirement from renewable energy sources. This obligation will become increasingly stringent in 2013–14 as the government plans to impose penalties on industry houses not complying with the policy.

# Renewable energy certificate (REC):

RECs are generation-based certificates awarded (electronically in demat form) to those generating electricity from renewable sources such as wind, biomass, hydro and solar, if they opt not to sell the electricity at the preferential tariff. These certificates are tradable on power

exchanges and are bought by 'obligated entities' (either specified consumers or electricity distribution companies), which are required to purchase a certain quantum of either green power or RECs to meet their renewable purchase obligations (RPO).

Cost: The cost of solar power has come down to a low ₹8 per unit from ₹18 per unit three years ago, thereby democratising and widening demand.

Power shortages: India's power deficit of 9% is likely to continue over the next few years. Besides, the gap between power purchase costs and tariffs has severely constrained the finances of state power utilities with net losses estimated at ₹88,170 cr in 2012–13. Solar energy appears as an attractive alternative in this regard.

# THE OPPORTUNITY LANDSCAPE

# Outsourcing relationship:

The US has imposed anti-dumping duties on China, which owns 70% of the global PV capacity because of its sheer size and governmental support. As a result, the country can offer low prices. So on the one hand, Chinese players are looking for partners in India to sell their products to the US and on the other, Indian players are also seeking monetisation opportunities in the outsourcing relationship. We perfectly fit into this scenario because:

■ Websol possesses established

infrastructure, thereby negating the need for capex investments

- Websol has the expertise across the value chain from manufacturing to sales
- Websol's installed scalable capacity of 60MW can be easily doubled at minimal capex and within minimum time

Global market dynamics: Though the last two years were fraught with challenges, we see a ray of stabilisation across PV prices, conversion and technology. We are increasingly expectant of price consolidation and technology upgradation, which will eventually help recover margins.

**Domestic market:** The government is targeting a 20-fold rise in solar power generation to 20 GW by 2022 as it looks to counter an average 9% power shortfall that shaves about 1.2 percentage points off the annual economic growth. A larger number of corporate houses are also evincing interest in establishing solar farms.

**Conclusion:** With stabilising PV prices, technological upgradation, cost optimisation and government initiatives, we expect to counter the sectoral challenges and return to profitability over the foreseeable future.

S.L. Agarwal, Managing Director



# 66 HE INTEND TO RUN PRODUCTION AT FULL CAPACITY IN 2012-13, REDUCING COST PER THA AND STRENGTHENING COMPETITIOENESS. 99

Mrs S. Vasanthi, Director – Technical & Marketing, reviews the Company's technology progress in 2011–12

Websol recognised that it needed to adapt with speed to the evolving dynamics of a competitive marketplace and manage all factors within control. The result was that the Company continued to prioritise cost reduction through value engineering on the one hand and enhanced production on the other.



# How do you review the Company's performance during 2011–12?

It was one of the most challenging years in our existence. From April 2011 to September 2011, our operations were smooth but thereafter, there was a sharp downturn leaving a huge unsold industry inventory across a number of European ports, which triggered a price meltdown. Your Company could not escape the situation; it was compelled to reduce the price of some stock while it was in transit to below production cost. Thereafter, the Company began to produce material only against orders, which affected profitability. There was a modest recovery from January 2012 onwards and the Company responded through enhanced production and cell efficiency.



# What were some of the challenges faced by the Company?

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One, the market growth tapered and European subsidies declined and a

slowdown on the continent translated into staggered offtake. Two, low-cost Chinese products threatened the profitability of most manufacturers, Websol included. The result was that the Company suffered from a low capacity utilisation on its installed capacity of 60 MW and deferred any increase beyond this level. Three, the market dynamics that have evolved with India emerging as a major international buyer led the Company to alter its strategic focus because Websol had hitherto focused only on the international market.



# How did the Company address these challenges?

Websol recognised that it needed to adapt with speed to the evolving dynamics of a competitive marketplace and manage all factors within control. The result was that the Company continued to prioritise cost reduction through value-engineering on the one hand and enhanced production on the other.