



**Installed capacity (Mw)**  
TOTAL 36,033.96

Solar 4,000  
Others 8,589.96

Wind 23,444

**2,500 Mw**  
Solar power in Madhya Pradesh is scheduled to rollout, including the first solar UMPP of 750 Mw

**10,000 Mw**  
Solar pipeline of projects ready to be tendered out

Source: IMAI

# HARNESSING SUN, WIND POWER

Softbank, Bharti Enterprises and Foxconn on Thursday announced a joint venture, which would invest \$20 billion to set up solar power parks in India. The JV aims to produce 20 Gw of the 100-Gw solar (and 60-Gw wind) generation target set by the prime minister by 2022. While there are those who think 175,000 Mw of renewable energy capacity in six years is an unimaginable target, some companies are looking at it as their ultimate goal. Movers and shakers of the solar and wind energy sectors committed 2.95 Mw of capacity addition by 2022 at RE-Invest 2015—the government's first investment congregation for the clean energy sector. The country would need \$200 billion of investment to meet the target, 70 per cent of which is likely to come from foreign investors. *Business Standard* looks at the companies which want to change the landscape of India's renewable energy sector.

## SUNEDISON INDIA

**Target:** 10,000 Mw (solar); 5,200 Mw (wind)

**Investment:** Not disclosed

The NYSE-listed firm is the world's largest renewable energy company. The company has committed to 15,200 Mw of renewable power, of which 10,000 Mw is solar and 5,200 Mw is wind energy. It currently has installed capacity of 100 Mw solar power in India and has signed a memorandum of understanding with Adani Power to set up a solar cell manufacturing facility of 6,000 Mw. SunEdison plans to make India one of its top three markets, given the strong demand for energy and the developing market.

**"SOLAR IS GOING TO GET BIG IN THIS COUNTRY. THERE IS DEFINITELY HUGE DEMAND FOR POWER AND THE NEXT MAJOR STEP IS GROWTH IN THIS SECTOR. WE HAVE TO SEE WHO HAS THE LONG-TERM VISION TO CATER TO THIS DEMAND. IF INCENTIVISED, SOLAR STANDS TO BENEFIT THE MOST FROM GOVERNMENT'S 'MAKE IN INDIA' PROGRAMME"**

Pashupathy Gopalan, president, SunEdison Asia Pacific



## ACME CLEANTECH SOLUTIONS

**Target:** 7,500 Mw (solar)

**Investment:** ₹35,000 crore

A silent player in the solar power sector, ACME was founded in 2003 by Manoj Upadhyay. It currently has projects across the country totalling 880 Mw, in various stages of development. The company has a record of completing projects on time, sometimes even ahead of schedule. ACME is committed to developing 7,500 Mw of renewable energy through solar power projects by 2019. It enjoys the financial backing of lenders such as International Finance Corporation, Asian Development Bank, US-EXIM and State Bank of India.

**"BESIDES GENERATING 12,000 MILLION UNITS OF GREEN POWER, THESE PROJECTS WILL GENERATE JOBS FOR 37,500 PERSONS AND PREVENT CARBON EMISSIONS TO THE TUNE OF 9,750 MILLION TONNES PER ANNUM"**

Manoj Kumar Upadhyay, founder and chairman, ACME



## WELSPUN ENERGY

**Target:** 8,660 Mw (solar); 2341 Mw (wind)

**Investment:** Not disclosed

The energy arm of the Wespun Group stands out for getting institutional funding from across the globe for its key projects. General Electric made its first Indian solar investment in the company by funding \$24 million in the Neemuch, Madhya Pradesh-based 151 Mw solar project. Asian Development Bank also made its first equity infusion ever in India as part of a \$50-million commitment into the company. Wespun has 308 Mw of solar power capacity and is in the process of building its wind portfolio.

**"TO MEET THE 11 GW COMMITMENT, WE WILL BE SETTING UP 5 GW CAPACITIES IN THE NEXT FEW YEARS. OF THIS, 1 GW WILL BE COMMISSIONED WELL WITHIN THIS FINANCIAL YEAR"**

Vineet Mittal, vice-president, Wespun Energy



## SUZLON ENERGY

**Target:** 11,000 Mw (wind energy turbine manufacturing)

**Investment:** Not disclosed

Among all the companies operating in renewable energy, Suzlon, India's first wind turbine manufacturer, is a household name. In about two decades, Suzlon has built presence in about 30 countries and built 26,000 Mw of wind power installations globally. It has the largest power evacuation facility in India, with 74 wind farm substations of 7,125 Mw connected capacity. Known as a pioneer for introducing indigenous technology in the wind sector, Suzlon is looking to improve its efficiency and re-power its old sites in the coming five years. It will also foray into solar energy.

**"SUZLON'S R&D EFFORTS WILL CONTINUE TO FOCUS ON BRINGING DOWN COST OF ENERGY (COE) AND DEVELOPING HIGH YIELD NEXT-GENERATION PRODUCTS SUITABLE FOR WIND ENERGY SITES WHICH WERE EARLIER UNVAILABLE. FOR EVERY ONE OF THE NEXT 5 YEARS, WE HAVE PLANNED 3 PER CENT REDUCTION OF COE PER YEAR"**

Tulsi Tanti, founder and chairman, Suzlon Energy



## RENEW POWER

**Target:** 25,500 Mw (solar); 5,000 Mw (wind)

**Investment:** Not disclosed

Sumant Sinha, seven years ago, was best known for turning around the Sinaras of Suzlon Energy as its chief financial officer. Now, he's known as a trendsetter for getting foreign investment in the Indian renewable energy sector. In 2011, he floated his own RE company, with \$350 million of funding from leading global lender Goldman Sachs. Currently, it has raised \$390 million of equity from marquee investors such as Asian Development Bank and Global Environment Fund.

ReNew Power has 750 Mw of projects in its kitty—both solar and wind. The company is an aggressive participant in state- and central-level projects and is touted by market observers as the one which will lead the pack soon. It has also been the fastest growing company in the past three years.

ReNew currently operates across 14 sites in Maharashtra, Rajasthan, Gujarat, Karnataka and Madhya Pradesh. The projects currently under construction will increase the number of sites to beyond 20 and additionally cover Andhra and Telangana. The company also has a presence in the solar rooftop space.

The man at the helm is looking to stay ahead when the market matures. He has committed 11,500 Mw in RE-Invest and promises his investors higher returns.

**"WE ARE EYEING A MARKET SHARE OF THREE-FOUR PER CENT FOR COMING THREE YEARS. WE WOULD BE DOUBLING OUR CAPACITY THIS YEAR AND WOULD BE THE FIRST COMPANY TO DO SO"**

Sumant Sinha, founder and CEO, ReNew Power



## HINDUSTAN POWER PROJECTS

**Target:** 7,000 Mw (solar); 3,000 Mw (wind)

**Investment:** Not disclosed

Decade-old Moser Baer, a leading solar panel manufacturer, transformed into project developer and became Hindustan Power Projects Limited (HPPL). Over three years, the company has invested ₹17,000 crore from a planned ₹35,000 crore. Its portfolio includes 4,000 Mw from thermal, 2 Gw of solar (by 2017), and 500 Mw from hydro and the balance from other renewable sources.

The company has wide presence across India and abroad. It has power projects in Gujarat, Tamil Nadu, Odisha, West Bengal, Madhya Pradesh, Punjab, Uttar Pradesh, Bihar and Assam. And, in Germany, Italy, the US, the UK and Japan.

A spokesperson said complementing its solar strategy, the company will also tap wind projects and plans to set up 3 Gw of wind energy by 2020.

**"HINDUSTAN POWER IS ALREADY THE LARGEST SOLAR DEVELOPER IN INDIA AND HAS A VISIBILITY TO COMMISSION 2 GW CAPACITY BY 2017. THE CLEAN ENERGY ARMY IS ALREADY HELPING TO REDUCE APPROXIMATELY 0.4 MILLION TONNES (400,000) OF GREENHOUSE GAS EMISSIONS ANNUALLY"**

Ratul Puri, chairman, HPPL



## GAMESA CORP

**Target:** 7,500 Mw (wind turbine manufacturing)

**Investment:** €100 million in 5 years

Gamesa, a Spanish major in wind energy turbine manufacturing, entered the Indian market in 2010 when it was ruled by domestic majors, the sector was battling policy hurdles and independent power production in wind was at a nascent stage. Now, the company has wind energy farms spanning seven states, with 1,400 Mw covered under operation and maintenance agreements. It has also set up an assembly unit in Chennai with a manufacturing capacity base of 1,500 Mw and a blade & tower manufacturing facility at Haveli in Gujarat. As on December 2014, the India operations contributed 26 per cent towards the total Mwe sold out of the reported global sale of 2,623 Mw and is looking at a target of 1,000 Mwe in 2015.

**"HAVING COMMISSIONED 650 MW WIND PROJECTS IN FY14-15 AND BACKED BY STRONG MANUFACTURING AND LOCAL WIND FARM DEVELOPMENT EXPERTISE, WE ARE POSITIVE OF ACHIEVING THE COMMITTED TARGET OVER THE NEXT SEVEN YEARS, IN LINE WITH GOVERNMENT'S AMBITIOUS PLAN OF HARNESSING 266 GW OF RENEWABLE POWER BY 2022"**

Ramesh Kymal, chairman and managing director, Gamesa India

## INDUSTRY WISHLIST

The investors *Business Standard* talked to, about the future of renewable energy in India, had a few suggestions. Here are some of them

### GROUND PLAN

175,000 Mw target is only a number—a flowchart sort of plan is needed

### TALK MONEY

Financing is still a challenge. Develop dollar rate purchase agreements to get foreign investment

### BANK SUPPORT

Renewable as a priority sector for lending is laudable. Now, roll out large projects

### LAND & ROOFS

If land acquisition is an issue, off-grid solar should be the way out

### GRIDS OF CHANGE

Strengthened grid to handle infirm renewable power

### TRANSMISSION

Get the 'green corridors' project moving. Transmission should precede generation

### PRACTICAL RETURNS

High time subsidy-based model is replaced with a returns on investment model