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Suzlon signs pact for 150 Mw wind power projects

Suzlon Group, the world's third leading and India's largest wind turbine manufacturer, has signed an agreement with Hindustan Zinc Limited, a Vedanta Group company and the world's largest producer of zinc, to set up, operate and maintain 150 megawatt (Mw) of wind power projects across the states of Karnataka, Maharashtra, Rajasthan and Tamil Nadu

The project entails a total investment of approximately Rs. 865 crore \$ 191 million), a company release said.

The cumulative capacity of 150 Mw will be completed in two phases – the first 50 Mw by March 2011, and remaining 100 Mw progressively by September 2011 and be supplied with a mix of Suzlon's S82-1.5 Mw and S88-2.1 Mw wind turbine models. The power generated will be purchased by the respective state's distribution utilities at the prevailing feed-in tariff under a long term power purchase agreement.

Tulsi R Tanti, founder, Chairman and Managing Director, Suzlon Energy, said, "The Vedanta Group is one of India's leading industrial



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#### Swarnim Surya Tirth is Asia's pride, says Modi

The Gujarat solar power park, which is also named Swarnim Surya Tirth by the chief min-ister, is spread over 2000 hectares of land, and is touted to be Asia's pride. Of this, about 1000 hectares are the govt waste land.... • page 4

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#### GENERAL

# 2010: year of launch and progress of JNNSM



One of the main achievements of the ministry of new and renewable energy during the year 2010 was the setting up of the Jawaharlal Nehru National Solar Mission(JNNSM).

The JNNSM specifically focuses on solar energy and its role in minimizing future emissions. The government has launched JNNSM in January, 2010, with a target of 20,000 Mw grid solar power (based on solar thermal power generating systems and solar photovoltaic (SPV) technologies), 2000 Mw of off-grid capacity including 20 million solar lighting systems and 20 million sq.m. solar thermal collector area by 2022. The mission will be implemented in three phases. The first phase will be of three years upto March, 2013, the second till March 2017 and the third phase will continue till March, 2022, the ministry said in a year-end review.

The government has also approved the implementation of the first phase of the mission (upto March, 2013) and the target to set up 1,100 Mw grid connected solar plants including 100 MW of roof-top and small solar plants and 200 Mw capacity equivalent off-grid solar applications and 7 million sq. metre solar thermal collector area in the first phase of the mission, till 2012-13.

During 2010-11, the ministry selected grid solar power projects of 800 Mw capacity. Six major R&D projects in solar thermal and photovoltaic technologies have been sanctioned. National Centre for Photovoltaic Research and Education has been set up at IIT-Bombay.

### 2010: Off-grid renewable energy for lighting

A new policy framework has been put in place in year 2010 for rapid up-scaling of offgrid programmes in an inclusive mode, the ministry said in a year-end review.

The programmes are now being implemented through multiple channel partners including renewable energy service providing companies, financial institutions including microfinance institutions, financial integrator, system integrators, industry and programme administrators.

A ministry release said that in order to sustain satisfactory performance and generation of output in the envisaged energy forms, a flexible funding approach has been adopted with bouquet of instruments including support in the form of capital subsidy, interest subsidy, viability gap funding etc. This apart, Ministry provides full financial support for undertaking pilot and demonstration projects through manufacturers and other organizations for demonstrating new and innovative applications of renewable energy systems.

The greatest potential area of off-grid relates to solar technologies. These include solar water heating systems, home lighting systems comprising solar lanterns, solar cooking systems, solar pumps and small power generating systems. Under the Solar Mission, it has been proposed to cover 2000 Mw equivalent by 2022 which includes all the above, except solar water heating systems for which there is a separate target of 20 million sq. meters.

Within the off-grid component, there is a separate target of covering 20 million rural households with solar lights. This includes coverage under the Remote Village Electrification Programme where largely solar lighting is provided to villages where grid is unlikely to go and which is almost entirely funded by Central grants. In addition, in other areas, where grid is available but power supply is of erratic nature, solar lighting is financed through loans given through rural banks. These are very ambitious targets, the release noted.

The Remote Village Electrification (RVE) programme aims at providing basic lighting/ electricity facilities through renewable energy sources in those unelectrified remote census villages and remote unelectrified hamlets of electrified census villages where grid connectivity is either not feasible or cost effective. During March –December 2010, 300 villages have been electrified and 341 projects for electrification have been sanctioned. Households in around 7000 remote villages and hamlets have so far been provided home-lighting systems under this programme, the release said.

### 2010: More of gridinteractive R-energy

Over 2700 Mw grid connected renewable power capacity was added during the year, the ministry said in a year-end review. It includes power from wind, biomass, small hydro and solar resources.

Over 2000 Mw wind capacity was added. Biomass power/ bagasse cogeneration capacity addition of over 400 Mw was achieved. The cumulative biomass power/ bagasse cogeneration based power capacity has reached 2,550 Mw. Cumulatively, 700 small hydropower projects aggregating to 2,850 Mw have been set up in various parts of the country, of these over 300 Mw capacity was added during the year 2010. Over 10 Mw capacity grid connected solar power generation systems were set up during the year.

#### 2010: Renewable Energy Certificates by CERC

In January 2010, CERC issued a notification on 'Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation'.

Renewable Energy Certificate seeks to address the mismatch between availability of renewable sources and the requirement of the obligated entities to meet their renewable purchase obligation. The National Load Dispatch Centre (NLDC) has been appointed as Central Agency for implementation of RECs. This Central Agency has prepared detailed procedures for registration, accreditation, issuance, and redemption of RECs, the ministry said in a year-end review.

### 2010: Electrification of all Arunachal border villages

During year 2010, the ministry continued implementation of a project for electrification/ illumination of the 1058 villages in border districts of Arunachal Pradesh. The implementation started from January, 2009 and will be completed by March, 2012, the ministry has said.

The total cost of project is Rs. 275.58 crore. Already 523 villages have been illuminated by SPV systems and 203 villages electrified from small/ micro hydel projects. A steering committee under the chairmanship of secretary, MNRE, is monitoring implementation of the project.

## 2010: Ladakh renewable energy initiative launched



During year 2010, the ministry has started implementation of a project entitled 'Ladakh Renewable Energy Initiative' to minimize dependence on diesel in the Ladakh region and meet power requirement through local renewable sources.

The approach is to meet power requirements through small/micro hydel and solar photovoltaic power projects/systems and use solar thermal systems for water heating/ space heating/ cooking requirements.

The project is being implemented in a time bound mode of three and a half years with a total cost of Rs. 473 crore. The project envisages setting up of 30 small/ mini hydel projects with an aggregate capacity of 23.8 Mw, SPV power plants in 70 villages, 120 health centers, education institutions/ schools etc. and 10 locations in defence establishments. The project also envisages installed of over 20,000 Solar thermal systems.

## 2010: Renewable power plants at tail-end of grid

In the larger perspective of grid power, the setting up of renewable power plants at tailend of grid is a new area being experimented in the country, a ministry release said in an year-end review.

For solar PV, a total of 100 Mw capacity is being set up with smaller plants of 100 kW to



2 Mw, which are connected to grid through 11 kV feeder. It is expected that small plants would reduce the transmission losses by 5-7 per cent with respect to large capacity plants of 50-100 Mw size and improve both voltage and frequency at the tail end. It would also help in further transmission of electricity of electricity downwards. The same approach is being planned for biomass based power plants of upto 2 Mw capacity too as the logistics of fuel management would become much more manageable and more environment-friendly.

## Eastern India lags in rural electrification

Though Eastern India scores over other parts of the country in terms of availability of power, the region lags in rural electrification, according to a report released by the Pricewat erhouseCoopers(PwC).

"Rural electrification in eastern India is 71 per cent compared to the national average of 85 per cent. Rural electrification in Jharkhand is the lowest at 31 per cent, while West Bengal tops the list with 99.6 per cent," the report, Exploring possibilities towards sustainability in India's power sector, said.

Focusing on renewable energy, the report said that renewable energy would contribute around 10 per cent of total power generation capacity by 2012 and have a 4-5 per cent share in electricity mix. "Growth in renewable energy will occur at a much faster pace than traditional power generation, with renewables contributing 20 per cent of the 78,000 MW of total additional energy planned from 2008-2012," it added.

## TN action plan to promote renewable energy



Tamil Nadu has come up with an action plan to combat climate change and encourage renewable energy production in line with the Central government sponsored National Action Programme

The state Electricity Regulatory Commission (TNERC) has introduced a 14 per cent renewable energy purchase obligation (RPO) to make it mandatory for the utility companies to buy renewable energy.

In a recent solar convention hosted by the Confederation of Indian Industry (CII), deputy chief minister MK Stalin said the state government generated around 5,500 Mw of renewable energy, which roughly represented 33 per cent of the total installed renewable energy power generation of India.

The state utilises renewable energy sources such as bio-mass power, wind power, small sized hydro power generations and bagassebased co-generation to generate clean energy. During 2009-2010, the state received around 9,600 million units of electric power from renewable energy sources representing nearly 13.12 per cent of the grid connected power, thus being ahead of most of the states in renewable energy usage. Tamil Nadu was the first state to make use of wind energy in India and as of today produces nearly 43 per cent of the total wind generated power in the country, Stalin said.

He said the state has plans to harness the copious solar radiation effectively by giving importance to solar power generation. The state government had announced Rs.18.45 as tariff per unit of solar power against Rs.17.91 offered by the Central Electricity Regulatory Commission under RPSSGP of the Solar Mission and has given sanction for seven 1 Mw solar projects under the scheme.

#### **SOLAR** 2010: Solar Green Cities scheme launched

A new scheme on 'Development of Solar Green Cities' has been launched to encourage and assist the urban local bodies in assessing their present energy consumption status, a year-end review by the ministry said.

It also aimed at setting clear targets for up to 10 per cent reduction in projected demand, and preparing action plans to generate energy through renewable energy sources and conserving energy utilized in delivering urban services. A mission approach is being attempted in this area of sustainable habitats.

Over 20 Mw power generation projects from waste were set up during the year. In view of the availability of large quantities of food and kitchen wastes at places of community cooking/large kitchens and eating joints, a project for biogas production from such wastes was under implementation. These include energy recovery and power generation from industrial and commercial wastes, & effluents, and cogeneration. Industrial waste-to-energy projects with a total capacity of about 8 Mw/eq were completed during the year. In addition, about 30 Mw/eq projects are under installation, the ministry said in a year-end review.

#### Solar power sector growing, but problems remain

With the Jawaharlal Nehru National Solar Mission addressing most issues, the country's solar energy sector is poised for the next phase of growth. The first batch of projects is likely to be implemented in 2011. However, concerns regarding funding, power purchase agreements and making projects bankable continue to plague the industry, a report said.

The Hindu Business Line said several key

players, but not all, are upbeat about prospects.

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While some expect to see at least 400 Mw of capacity coming through during 2011, others feel that it could be about 600 Mw. Though this may be relatively small considering the huge energy requirement and the potential of the solar sector, they see 2011 as a period of consolidation.

Hari Surapaneni, Chief Executive Officer, Solar Semiconductor, said: "The year 2010 had a good, modest start in the right direction. This will ensure that fresh capacity is added by the end of next year. However, the industry and respective state governments, and utilities are still in the process of figuring out the ability to get the right power purchase agreements." The company expects to set up 25 Mw by next year.

Vijay Anand, Head, Corporate Strategy, New Business Investments, Moser Baer, said: "As a company which has a diversified portfolio of solar thin-film, solar photo-voltaic module and crystalline silicon base, we see ourselves implementing about 100 Mw of installed capacity each year beginning 2011. We have recently commissioned a 5-Mw unit in Tamil Nadu."

Sanjay Varghese, Director - Business Development, Lanco Solar, said, "States need to be proactive and make PPAs attractive for companies, just like Gujarat has managed to do. Lanco Solar is setting up a solar PV module facility in Orissa, and expects to have an installed capacity of at least 45-50 Mw by 2011 end."

"In the case of Gujarat, it is offering Rs 15/ unit for the first 12 years. This has made it attractive, as against the first batch that has bid for in the country were offered Rs 18/unit," Varghese said.

Hari Kiran Chereddi, Managing Director, Sujana Energy Ltd, said: "The Indian solar industry is on the cusp of a new era, which could see the sun powering our future and preserving the ecology. 2010 witnessed the first steps of the JNNSM; there has been a lot of push towards investment in technology development for Indian content, policy framework and appointment of NVVN as a nodal agency."

### 2010: Solar water heating systems



Solar water heating is a well-established technology and has been in promotion in country for last many years. It is an important way of reducing electricity demand by replacing geysers in domestic houses. A total of about 3.8 million sq.m. of collector area for water heating has been installed so far as against an estimated techno-economic potential of 40



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million sq.m. of collector area in various sectors. During the year 2010, over 0.6 million sq.m. of collector area was installed, the ministry said in a year-end review.

The major potential exists in the domestic sector though a significant potential also exists in commercial & industrial sectors. The new financial incentives introduced in the off-grid scheme announced under JNNSM will help taping this potential.

Solar concentrating systems, comprising automatically tracked of parabolic dishes, have been found to be useful for generating steam to cook food for hundreds and thousands of people in community kitchens especially at religious places such as Shirdi, Mount Abu, Tirupati etc. The world's largest system is functioning at Shirdi for cooking food for 20,000 people/day.

These systems have found good applications for air conditioning and laundry also and a few demonstration plants have recently been installed. A total of around 80 concentrating systems of different capacities covering 25,000 sq.m. of dish area are functioning in the country, largely for cooking purpose. During 2010, 15 such systems were sanctioned covering a dish area of around 3000 sq.m, the ministry said.

#### Trina Solar 5Mw solar plant ready in Gujarat

Trina Solar Ltd, a leading integrated manufacturer of solar photovoltaic (PV) products from the production of ingots, wafers and cells to the assembly of PV modules, has announced the completion of a 5 Mw solar power plant developed by Lanco Infratech Ltd ("LITL"), one of the fastest growing business conglomerates in India.

The project is one of the largest single-location solar power plants in the country and the first such for Gujarat. The announcement was made through Trina Solar subsidiary, Changzhou Trina Šolar Energy Co.

Trina Solar was the exclusive supplier of the high performance PV modules to power the solar plant located in Gujarat. Gujarat is emerging as a hub of solar power generation due to its abundant open space, high solar radiation and strong government support to promote Gujarat as an investment destination for solar energy.

"We are pleased to work with Lanco, one of India's leading integrated players with con-siderable experience in EPC, construction and power generation," said Ku Jun Heong, Director of Sales and Marketing (Asia Pacific) at Trina Solar. "India is one of the most promising solar growth markets, announcing its goal to achieve 22 Gw of solar energy by end of 2022. We believe our partnership with Lanco will play a significant role in fulfilling India's solar potential under the National Solar Mission.

#### 16 solar power units to come up at Charanka

As many as 16 solar power companies will set up their power plants in the solar park being developed at Charanka village in Patan district, a report said.

The Gujarat government on Thursday launched Asia's first ever solar park at Charanka, which is barely 16 km away from the Pakistan border. The solar park, the first of its kind in the country, will house solar power generation capacities worth 500 Mw by different individual companies that will bring investments worth more than Rs 7,500 crore in the park.



Launching the solar park, chief minister Narendra Modi said, "This will start a new chapter in the history of India's power sector. The solar park will make power accessible to poor and will help reduce emission to a great extent. The government is committed to employing local people at the park and will help improve their skills as are required for the solar power sector." This park will reduce coal consumption to the tune of nine lakh tonne and save carbon emissions worth 80 lakh tonne, he added

The state government has appointed Gujarat Power Corporation Ltd (GPCL) as the nodal agency for facilitation and implementation of the solar power policy- 2009.

About 16 companies have been allotted solar power generation capacities worth 176 Mw to be set up in the park over next few months. The government has also signed power purchase agreements with 80 firms for solar power worth 932 Mw. These will come up in the due course of time. So far we are focusing on Patan, while the government is also considering other potential area for the development of solar power units in Banaskantha and Kutchh districts," said DJ Pandian, principal secretary, department of energy and petrochemicals.

Some of the private players will also set up their independent solar power plants, for which they will sign Memorandums of Understanding (MoUs) with the government at the upcoming Vibrant Gujarat Global Investors' Summit 2011. As the part of the central government's target to set up 20,000 Mw solar power generation capacities in the country by 2020, we expect Gujarat to set up around 10,000 Mw solar capacities over next 5-6 years," Pandian said.

### Swarnim Surya Tirth touted as Asia's pride

The Gujarat solar power park, which is also named Swarnim Surya Tirth by the chief min-ister, is spread over 2000 hectares of land, and is touted to be Asia's pride.

Out of this about 1000 hectares are the government waste land, while approximately 1000 hectares are private land, which will be acquired as and when required, a top government official informed.

Ardeshir Contractor of Kiran Energy, one of

the allottees at the park, said, "We are happy to come to Gujarat as the state has focused approach for power sector. The site is appropriate for the development of solar plants. We are setting up a 20 Mw solar power plant here.3 Apart from this, Kiran Energy is also scouting for locations in Maharashtra and Karnataka for setting up solar power plants. Contractor did not divulge investment statistics.

Some of the other allottees that will set up power plants at the park include, GMR Gujarat Solar Power Pvt Ltd (25 MW), Sun Edison Energy India Ltd (25 MW), Alex Astral Power Pvt Ltd (25 MW), Roha Energy Pvt Ltd (25 MW), Emami Cement Ltd (10 MW), Azure Power (5 MW) among others. GERC signs PPA for 537Mw with 54 solar

companies

Gujarat Electricity Regulatory Commission (GERC) became the first State Regulatory Commission in the country to issue a tariff order on solar energy. It has issued its first tariff order for procurement of power by distribution licensees from solar energy generators (solar photovoltaic and solar thermal projects).

Gujarat has allotted 565Mw of solar capacity taking the total allotment to 1281Mw to date. The signing of the PPAs have now been announced in just a month after the second round of developers had been shortlisted. Gujarat government has set the ambitious target of installing 1,000 Mw solar power capacity



by the end of 2012 and 3,000 Mw in next five years. The state has laid out the norms of the RPO policy .

Earlier the state government through Gujarat Urja Vikas Nigam Ltd had finalized 17 PPAs for 235MW of generated Solar PV and Solar Thermal for 25 years.

According to reports, Gujarat Urja Vikas Nigam Ltd (GUVNL), a state-run power generation, distribution and transmission company, has recently inked Power Purchase Agreements (PPAs) with as many as 54 solar power generation companies for 537 Mw.

The companies which entered into purchase agreements with GUVNL also include Tata Power, Monnet Ispat Solar Energy, GMR Gujarat Solar, Alex Astral, Ganges Entertainment Pvt Ltd and Ujjwala Energy Pvt Ltd. All these companies have signed PPAs for 25 Mw each, while Hira Co India Pvt Ltd and Kiran Energy Pvt Ltd for 20 Mw each. Apart from this, state PSUs such as Gujarat Mineral Development Corporation (GMDC), Gujarat Industries Power Company Ltd (GIPCL) and Gujarat Power Corporation Ltd (GPCL) have signed agreements for 5 Mw each.

With this, Gujarat's solar purchase com-

mitment stands at 933.5 Mw close to their installation target of 1000Mw by 2012, reports said.

# Ahmedabad civic body to have solar lighting system

Ahmedabad Municipal Corporation is going green. It will install solar lighting systems in its new building at the main office, and at the Sardar Patel Stadium in Navrangpura. This will help the civic body save around Rs. 4 lakh per month that is paid towards electricity bill of the new building alone.

Gujarat Energy Development Agency (GEDA) is helping the AMC to implement green energy projects at both the places. The state government has cleared the plan and GEDA is preparing the project report for implementation, a report said.

plementation, a report said. "The proposal was approved last month at a meeting with officials of energy and petrochemical department of the state government," said IP Gautam, municipal commissioner of Ahmedabad. The new AMC office has been built at a cost of around Rs. 18 crore including construction cost, interiors and other facilities.

The civic body is using solar lights in the gardens and also at Memco Sports Complex. The central government provides grants for using solar energy, so the civic body need not worry about capital investment for the same. The solar energy system will also help the corporation to use the stadium at night for organising cultural programmes, said Gautam.

## Mapping of solar hot spots under way



Researchers at the Indian Institute of Science (IISc), Bangalore, are in the process of mapping solar hot spots with abundant roundthe-year sunlight that could be harnessed with the setting up of solar power plants.

Under the Jawaharlal Nehru National Solar Mission, India aims to produce 1,000 Mw of solar power by 2013 and 20 gigawatts (Gw) by the end of 2022. India currently generates 18,155Mw, with 10.9 per cent, of its electricity sourced from renewable resources, of which solar energy contributes only 18Mw, or 0.01 per cent.

T V Ramachandra, a faculty member at Centre for Ecological Sciences (CES), said Rajasthan, Gujarat and Karnataka have been identified as states that could successfully leverage their sunlight throughout the year. Coastal parts of Kerala and areas in Jharkhand, Uttar Pradesh and Andhra Pradesh were ideally suited for smaller plants for domestic use, like solar cooker and solar water heater.

#### **BIOGAS** 2010: 60,000 biogas plants installed

The National Biogas and Manure Management Programme of the ministry mainly caters to setting up of family type biogas plants for meeting the cooking energy needs in rural areas of the country. During the year, 60,000 family type biogas plants have been installed, the ministry said in a release.

With this, the cumulative installation of 4.31 million family type biogas plants, about 35 per cent of the estimated potential has been realized so far. Apart from setting up family type biogas plants, the ministry started a new initiative from the year 2008-09 for demonstration of Integrated Technology package in entrepreneurial mode on medium size (200-1000 cum/day) mixed feed biogas-fertilizer plants (BGFP) for generation, purification/enrichment, bottling and piped distribution of biogas. Ten such projects with aggregate capacity of 7700 cum/ day capacity have been sanctioned and are at different stages of implementation.

In order to utilize the micro hydel resources in remote hilly areas, the ministry has been implementing a revised scheme for watermills and micro hydel projects upto 100 kW capacity. During the year, over 300 watermills have been setup/upgraded for mechanical/electrical outputs. In addition, over 2000 water mills and 60 micro hydel projects for meeting the mechanical and electrical needs of rural communities are at different stages of commissioning, the report added.

Biomass gasifiers for thermal applications with a total capacity of about 20 Mw/eq have been installed in various industries such as bakeries, die-casting and food processing units. In addition, biomass gasifier systems with a total capacity of about 10 MWeq are under installation in various industries for thermal/electrical applications.

# 2010: Biomass gasification for rural areas under way

Rice husk-based power-generating units in the villages of West Champaran district in Bihar have been lighting up around 500-700 households spread over 20 villages in the district, and changing the profile of the cluster altogether, the ministry of new and renewable energy said in a year-end review.

The West Champaran experiment is supported by the ministry or new and renewable energy and implemented by Husk Power Systems (HPS), an NGO.

The technology employed is simple: It uses the husk-based gasifier technology to provide electricity using 32 kWe 'mini power plants' that deliver power on a 'pay-for-use' basis to households in the rice-producing belt. The price paid to procure electricity generated by these mini-power plants is very low—Rs. 2 per day per household, located within a radius of 1.5 km. The charges are such it results in a reduction in the consumption of kerosene by as much as two-thirds.

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Power is supplied from 5 pm till midnight each day. During the daytime, it provides power to 6-7 pumps for irrigating fields. The success of the Bihar initiative has resulted in HPS planning to set up 20 more plants of 32 kWe generating capacity in Samastipur and Lakhisarai, besides more villages in West Champaran. Similar projects are being conceived of in eastern UP and parts of West Bengal.

The ministry has plans to take up the rice husk based electricity systems on a 'Mission Mode'. The potential is enormous and even some of the large rice mills can feed power to the grid as well as distribute locally. More than 5,000 to 10,000 industries can be benefited in the next 2-3 years. These systems could result into diesel saving to the tune of 200-250 million litres annually.

### **CORPORATES** Sulzon seeking investor to effect turnaround



Sulzon Energy is likely to arrange a strategic investor to improve its business prospects even as the wind turbine market dismissed reports that it was being acquired by a Spanish firm, a report said.

Sulzon's shares soared over 5 per cent on Tuesday to touch an intra-day high of Rs. 57.3 on the Bombay Stock Exchange after television channels reported that Sulzon's promoters may sell 55 per cent holding in the company to Spain's Gamesa Corporation Technologies for Rs. 77 a share. Sulzon rejected the report as speculative in nature and inaccurate, The Economic Times reported.

#### Godawari Power to build a 50 Mw solar plant

Godawari Power and Ispat Ltd would set-up a50 Mw solar thermal power project awarded to it under the Jawaharlal Nehru National Solar Mission Scheme through its 100 per cent subsidiary company, the Godawari Green Energy Ltd, a report said.

The board of directors of the company, at its meeting on December 29, also decided to approve the investment in the equity share capital of the Godawari Green Energy Ltd. as and when required for setting up the project.

The cost of the project is estimated to be Rs. 700 crore which will be financed through a mix of debt equity capital. The company said it will achieve financial closure within a period of 180 days.

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The GGEL shall execute a long-term power purchase agreement (PPA) with NTPC's Vidyut Vyapar Nigam Ltd, a nodal agency appointed under the JNNSM scheme for a period of 25 years. The power will be supplied at a fixed tariff of Rs. 12.20 per kW, SteelGuru said quoting Equity Bulls.

## RPP Infra to enter solar power sector



R P.P. Infra Projects Limited, engaged in infrastructure development such as highways, roads and bridges, plans to enter into solar power sector. The company plans to set up a plant of 5 Mw to generate electricity from non-conventional sources as solar power with the total investment of Rs. 80 crore. Operations would commence in 2011 - 2012 fiscal.

The proposed project will utilize crystalline technology for producing power by solar energy. The site would be at Kamudhi, Ramanathapuram district of Tamil Nadu, where it has earmarked about 92 acres of land. This site is one of the most potential areas identified for the solar energy in southern India.

For the solar power project, the company plans to enter into Joint Ventures with potential solar cell manufacturing companies in Thailand and China. The company is in advance talks with Thai Agency Engineering Cooperation from Thailand. The company is also looking for the prospective partners from the company in China to commence their operation for solar power projects.

#### **BIDS/TENDERS**

### Swiss Park Vanijya invites bids for solar plant

Swiss Park Vanijya has invited bids from eligible companies for the setting up of a solar photovoltaic project in Rajasthan. The company plans to set up a 5 Mw solar photovoltaic power generation plant at Tinwari village in Osiyan tehsil in Jodhpur district. The bids have been invited for turnkey EPC, solar panels, power conditioning units, mounting structure, electrical system packages. The last date for submission of bids is 14 January 2011.

#### EXPO

# Exhibition and conference on renewable energy

VaVoVa 2011, south India's first International exhibition-cum-conference on Renewable Energy, is to be held by TEDA (Tamil Nadu Energy Development Agency) during 14 -16 January at Chennai Trade Center, Nandampakkam, Chennai.

Over 20 country representatives have been contacted already; nearly 10 of them are confirming their participation. A minimum of 15 state nodal agencies of the ministry of new and renewable energy (MNRE) including Karnataka, Andhra Pradesh, Gujarat, Maharashtra, Rajasthan, Arunachal Pradesh, West Bengal and Pondicherry will be participating.

Multinational companies like Kenersys Europe, Suzlon, Southern Wind Farms Limited, RRB, Leitner Shriram, Lanco Solar, Acme, Reliance Industries, TATA – BP Solar, BEL, Saint Gobain, Ariva, IOT Mabagas, NSP Green Energy Technologies, Ankur Scientific Technologies etc would also participate in the exhibition& conference, a report said.

#### QUOTE

# On prices of solar power equipment

"The price of DVDs has come down from about Rs. 400 to Rs. 10-20, thanks to domestic production. Similarly, the solar energy segment will see prices coming down, with local manufacturing. Therefore, the government has done the right thing by making local supplies mandatory for new projects awarded last year."

--Vijay Anand, Head, Corporate Strategy, New Business Investments, Moser Baer.

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