# **SESI Newsletter**

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## SESI Delegation Calls On Hon'ble Minister for New and Renewable Energy



(L to R) Shri Ajay Prakash Shrivastava, Shri Jagat S Jawa, Dr. Farooq Abdullah, Shri Rajinder Kumar Kaura & Shri Prafulla Pathak



ESI Delegation comprising of Shri Ajay Prakash Shrivastava, President, SESI, Shri Rajinder Kumar Kaura, Secretary General, SESI, Shri Prafulla Pathak, G.C. Member of SESI and Shri Jagat S Jawa, Director General,

SESI called on Dr. Farooq Abdullah, Hon'ble Union Minister for New and Renewable Energy, Govt. of India. The SESI team once again invited him to participate as Chief Guest in the International Congress on Renewable Energy (ICORE)-2011 and Trade Show being organized on 2-4 November, 2011 at Tezpur University, Assam. Dr. Abdullah assured that he would try his best to attend ICORE-2011 depending upon the exigencies of work.

The SESI team also informed him that it was the first time that this annual flagship event of Solar Energy Society of India was being organized in North Eastern part of India and also apprised him about the progress of various activities of ICORE-2011. The Hon'ble Minister was very happy to know that a large number of authors had submitted their papers for proceedings of ICORE-2011 and assured financial support for hosting of ICORE-2011 at Tezpur University, Assam.

## Intersolar India Prepares for Round Three

his year, Intersolar India enters its third round. The businessto-business industry platform focuses on the latest trends and technological developments in the fields of photovoltaics and solar thermal technology. Over 6,000 trade visitors are expected to attend the event in Hall 1 of the Bombay Exhibition Centre (BEC) in Mumbai, India from December 14–16, 2011. Intersolar India is the international meeting point for solar companies who are looking to contribute to the rapid development of the Indian solar market.

#### Exhibition and Market on an Upward Trajectory

Thanks to the National Solar Mission, launched last year by the Indian government, which fast-tracked the country's transition into the solar age, the Indian solar market has now become extremely dynamic and is gaining the attention of the international industry. As an international exhibition and conference for the solar industry, the aim of Intersolar India is to promote cooperation between key players from industry, commerce, the service sector and politics to drive growth in the Indian solar market and beyond the subcontinent's borders. Indian Federal Minister for New and Renewable Energy, Dr. Farooq Abdullah, emphasized how important international networking is for the Indian government during his visit to Intersolar Europe in Munich six weeks ago. The upward growth of Intersolar India underlines India's ambitions, with 250 expected exhibitors - a 70 percent increase over last year - set to present their products and services in Mumbai. The exhibition space has also increased to 20,000 square

meters, doubled in size compared to last year.

#### Intersolar India Conference

From December 13–14, 2011, around 700 expected industry experts are meeting at the Intersolar India Conference to discuss and expand on topics from the exhibition – the conference starts a day prior to the exhibition and runs one day into the event. Around 100 Indian and international-based speakers are providing a comprehensive insight into advances in technology and policy within the Indian and international solar industry. The conference is being held at the Leela Kempinski Hotel, Mumbai.

For more information on Intersolar India please visit: www.intersolar.in



Attendees listening to the latest trends

#### Suzlon Energy receives shareholders' nod to raise funds

With order book to the tune of 13,000 crore Suzlon Energy is upbeat about markets in China, Germany and India. In a bid to undertake new projects and infuse working capital, the company is considering raising up to > 5,000 crore through various means. Suzlon shareholders empowered the company promoters to raise funds by way of issuance of equity shares, foreign currency convertible bonds, global depository receipts, or other such equity-linked products. It may be mentioned here that China led the global capacity addition drive in 2010 with 18,928 MW of new installations within a year and accounted for more than 50% of the world market for new wind turbines. China raced ahead of USA that added 5,000 to cross 44,000 MW mark in 2010. The top five countries USA, China, Germany, Spain and India together represented 74% of the worldwide wind capacity in 2010.

#### Acciona completes 56 MW wind park in Tuppadahalli, India

Acciona SA completed construction of a 56-megawatt wind park in Tuppadahalli, India, making it the biggest Spanish wind developer in the country. The 58 million-euro (\$79 million) facility, financed by Chennai-based Infrastructure Development Finance Co., brings Acciona's total wind-generating capacity in India to 86 megawatts. The power from 34 1.65-megawatt turbines will be sold to state-owned utility Mangalore Electricity Supply Co. Acciona's portfolio of projects in India has a load factor of 37 percent compared with an average of 21 percent for wind parks in the country, the company said. All the plants are part of the United Nations' Clean Development Mechanism that issues carbon- emission permits to projects in the developing world that reduce greenhouse-gas emissions.

#### Suzlon Energy bags order from Sri Lankan company

Suzlon Energy said it has received an order from Sri Lankan group Senok to supply wind turbine generators. However, the financial details were not disclosed. The order from Senok is for supplying ten units of S88 - 2.1 MW wind turbine generators, aggregating 21 MW capacity. Earlier, Suzlon had done 10 MW wind project for Senok. The new 21 MW project wouldcome up alongside the existing one in the Puttalm district of Sri Lanka. Suzlon said Repower Systems SE has concluded a contract with France-based La Compagnie du Vent, GDF Suez Group for delivery of 23 wind turbines. Suzlon holds over 95 per cent stake in RE power.

#### Mahindra to enter solar energy

The \$12.5 billion Mahindra group is diversifying into solar energy through its in house private equity arm Mahindra Partners. The solar business, part of Mahindra's Clean Tech vertical, will be involved in on-grid solar plants, offgrid or captive solar plants, solar power products and EPC contracts. Mahindra Solar has already bagged a 5MW project in Rajasthan which will be up and running by January 2012. It will also bid for projects in states like Gujarat, Rajasthan and Karnataka, which are taking the lead in solar energy under the National Solar Mission. The solar business will look for private equity

participation once it goes beyond what the company calls the "testing and incubation" stage. Mahindra Clean Tech is also interested in getting into water treatment and water management as well as energy efficiency as business opportunities under the Clean Tech vertical. Mahindra Solar will have three different business lines. It will have an on-grid business which will contribute power to the grid. It will also have an off-grid business for captive solar plants as well as a solar power product line. Besides it will undertake EPC (engineering, procurement and construction) contracts to build solar power plants.

#### GE to invest \$115 mn with Greenko in India windfarm project

General Electric Co. (GE), the world's third-biggest supplier of wind turbines, announced its first investment in Indian renewable energy generation with plans to build \$115 million of wind farms with Greenko Group Plc. GE Energy Financial Services will invest \$50 million and Greenko \$65 million to create 500 megawatts of wind projects, enough to power 875,000 Indian homes.

#### Greenpeace called upon UP govt to demand a bigger share of decentralised renewable energy

In the backdrop of the upcoming National Development council (NDC) meeting, Greenpeace has called upon the Uttra Pradesh government to demand a bigger share of decentralized renewable energy (DRE) under the flagship Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY). Greenpeace also released its national report on RG-GVY highlighting how the scheme has failed to meet its objectives. The report is a compilation of social audits, public hearings and consultations of RGGVY conducted in Uttar Pradesh. Bihar and Andhra Pradesh to understand if the scheme has been able to meet its stated mandate and its socio economic impact on the rural populace. The report points out that localised generation and supply of power through renewable energy is crucial for ensuring electricity access in Uttar Pradesh. UP has been reeling under a power crisis and has been forced to buy power at rates as high as `17 per unit from the central pool to ensure adequate supply in the state.

## Himachal project set to get carbon credits

The United Nations Framework Convention on Climate Change has registered for carbon credits the ` 365-crore Himachal Pradesh Mid-Himalavan Watershed Project being co-funded by the World Bank. This is the first project on public land in India registered for carbon credits. Under the Kyoto Protocol on climate change industrialised nations are mandated to meet targets of reducing greenhouse gas emission responsible for causing global warming which was leading to climate change. If they are unable to bring down emissions, countries or companies operating in these regions, have the option of buying carbon credits from projects which have been awarded these credits by the UN clean development mechanism (CDM). The Himalayan Watershed Project will thus accrue millions of carbon credits which will benefit about 5,000 families from remote and backward villages in the state, receiving revenue for the next 20 years from the World Bank for providing green cover to 4,000 hectare barren land area falling in 10 districts. The project will reduce 40,000 tonnes of carbon dioxide per year for a 20-year crediting period beginning from 2006. Initially for 20 years, the project can also be extended to a total of 60 years. Under the Emission Reductions Purchase Agreement, the World Bank will buy 3.5 lakh temporary certified emission reductions (tCERs) for plantations raised over 4,003 hectares in the first phase covering the period 2006-2018 depending on the growth of biomass. The programme would be implemented through the Joint Forest Management Committees, and so far around 400 such committees had been formed at the hamlet level.

#### Growing interest in India's National Solar Mission

Earlier this month, over 150 solar companies bid for the "second batch" of projects allotted under Phase 1 of India's National Solar Mission. This sustained and arguably growing interest in the solar energy program is largely attributed to the Indian government's modifications to the Solar Mission Guidelines. NRDC and Council on Energy, Environment and Water (CEEW), have been discussing perspectives on the Solar Mission with key solar energy stakeholders, including the government, the industry and the industry observers over the past month.

#### Prices of renewable energy certificates up 17 pc in October

Price of renewable energy certificates grew by 17% in October to `2,700 due to rise in demand. The certificates, commonly knows as green tags across globe, were available at ` 2,300 apiece in September, India Energy Exchange said. Green tags are tradable instruments on the lines of carbon credits. Owners of these certificates can claim to have produced green energy and avoided carbon emissions. The certificates help state distribution utilities that have to buy a portion from renewable projects and to industrial consumers Global Energy Pvt Ltd, GMR Energy Ltd, Instinct Infra & Power Ltd, Knowledge Infrastructure Systems Private Ltd. Manikaran Power Ltd. Mittal Processors Ltd, National Energy Trading & Services Ltd, PTC India Ltd, Reliance Energy Trading Ltd, RE-Connect Energy Solutions Private Ltd and Tata Power Trading Ltd were the major traders in October. NLDC, the nodal agency renewable energy certificates market, issued 1,22,889 certificates during October against 74,612 in September. Presently, eligible generators registered with the agency are 192 projects having 1241.17 MW capacity. One solar project of 8.5 MW has also been accredited. Market share of India Energy Exchange in October trade session was 97%. The current trading session saw 90 buyers and 39 sellers participating in the trading. Open access and captive power consumers also purchased significant number of renewable energy certificates.

#### Suzlon gains on completion of REpower squeeze-out

With the squeeze-out process, Suzlon Energy has achieved full control of its German subsidiary, REpower Systems by acquiring all of its shares. Suzlon acquired a stake in REpower in May 2007. REpower is a recognized technology leader with a strong presence in Europe. It controls approximately 10% of the German market share. It has a ca-

pacity of 1,250 megawatt (MW) with a planned expansion of an additional 450 MW. REpower manufactures medium to high capacity WTG (1.5 to 5 MW) and has an employee strength of 1,150. The Suzlon Group is ranked as the world's fifth largest wind turbine supplier, in terms of cumulative installed capacity, at the end of 2010. The company's global spread extends across Asia, Australia, Europe, Africa and North and South America with over 18,000 MW of wind energy capacity installed in 28 countries, operations across 32 countries and a workforce of over 13.000.

## Gujarat to host Asia's largest solar energy park

Gujarat would house the largest solar energy park in Asia in two years, with a power production capacity of 500 MW. This would be set up with an investment of around Rs. 8,000/- crore flowing from companies such as GMR and Lanco, which have been assigned generation capacities under the Gujarat Solar Mission. Gujarat had announced a solar power policy in January 2009, with a target of installing 1,000 MW capacity by 2012 and 3,000 MW by 2014. The state has already singed power purchase agreements (PPAs) for 934 MW.

The park, on the lines of an industrial estate, is being developed by Gujarat Power Corporation Ltd (GCPL), as the sectoral nodal agency, on around 2,000 hectares of wasteland bordering the Rann of Kutch, in Patan district. When commissioned, the project would provide 800 million units of power. In the first phase, 15 solar power generation companies would produce 176 MW and Gujarat Energy Transmission Corporation would set up a power pooling station. The overall project cost in phase I would be Rs. 1287 crore. This would include Rs. 351 towards the cost of land and power infrastructure and Rs. 624 crore for evacuation facilities.

The Planning Commission has already approved a one-time additional central assistance of Rs. 210 crore for the development of the solar park. The Asian Development Bank has approved a soft loan of USD 100 million for the project. This includes development of a 'smart grid' for evacuation of power.

## Government subsidy to villages using solar power

In order to promote solar power, the government is subsidising the technology. Besides, efforts are also on to encourage people to get into using the solar energy equipment. In rural areas, the village pradhans who are willing to set up a solar power plant are given 50% subsidy by the government, for up to 200 MW. In some of the villages, such efforts have already paid off.

#### Suzion Energy bags order for wind turbines from GAIL

Wind power company Suzlon Energy said it has bagged an order from GAIL for supply of wind turbines to the staterun gas distribution major's upcoming project in Karnataka. Suzlon received an order for supplying wind turbines with a combined generation capacity of 25.5 MW from GAIL India. The order comprises 17 Suzlon wind turbines of 1.5-MW capacity each, to be commissioned in Karnataka in 2012. The power generated from this project will be sold to a local power distribution company under a long-term power purchase agreement (PPA) at a fixed, preferential feed-in tariff. GAIL is already sourcing equipment for two of its wind power projects in Gujarat from Suzlon Energy.

#### India at 'extreme' risk from climate change

A third of humanity, mostly in Africa and South Asia, face the biggest risks from climate change but rich nations in northern Europe will be least exposed. Bangladesh, India and the Democratic Republic of Congo (DRC) are among 30 countries with "extreme" exposure to climate shift.

#### India is proactive in dealing with climate change, says Maldives President

Maldives President Mohamed Nasheed said that India is constantly investing and assisting in climate change at a rate much higher than several other developed nations. Appreciating Indian policies surrounding climate change, he said that India's contribution has been phenomenal and higher than many other developed countries. The 54-nation Commonwealth Heads of Government Summit Meeting (CHOGM) is presently being held in Perth. Meanwhile, Nasheed hoped that the meet emerges to be a concrete step towards improving trade and investment agreements between the Commonwealth nations. Nasheed further said the relations between India and Maldives are at an all time high and will continue to strengthen in times to come. This summit also holds great importance for India, as it is the largest member of the Commonwealth.

## NEW & RENEWABLE ENERGY Cumulative Achievements as on 31. 08. 2011

Sources/ Systems	Cumulative achievement up to 31.08.2011
I. POWER FROM RENEWABLES:	
A. GRID-INTERACTIVE POWER (CAPACITIES IN MW)	
Wind Power	14989.00
Small Hydro Power	3153.93
Biomass Power	1083.60
Bagasse Cogeneration	1779.03
Waste to Power - Urban	20.20
- Industrial	53.46
Solar Power (SPV)	46.16
Total	21125.38
<b>B. OFF-GRID/ CAPTIVE POWER</b> (CAPACITIES IN MW <sub>E0</sub> )	
Waste to Energy - Urban	3.50
- Industrial	72.30
Biomass(non-bagasse) Cogeneration	327.95
Biomass Gasifiers - Rural	15.55
- Industrial	125.88
Aero-Genrators/Hybrid systems	1.24
SPV Systems (>1kW)	72.50
Water mills/micro hydel	1818 Nos.
Total	618.92
II. REMOTE VILLAGE ELECTRIFICATION	
No. of Remote Village/Hamlets provided with RE Systems	8846
III. OTHER RENEWABLE ENERGY SYSTEMS	
Family Biogas Plants (No. in lakhs)	44.16
Solar Water Heating - Coll. Areas (Million m2)	4.67





#### December 14–16, 2011

India's International Exhibition and Conference for the Solar Industry Bombay Exhibition Centre, Mumbai



250 Exhibitors 20,000 sqm Exhibition Space 6,000+ Visitors

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- Project Design
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- Construction Facility & Utility
- System Designing (Component Selection)
- Implementation
- Commissioning Process
  Optimization
- Training maintenance & manpower
  Development
- Power Evacuation
- Sales and Marketing
- Project Delivery

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