SESI Newsletter

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INSIDE

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DG, SESI Participates in Intersolar North America 2012

On the invitation of Solar Promotion GmbH, DG, SESI had visited San Francisco, USA to participate in Intersolar North America, 2012 organized during 9-12 July, 2012 at San Francisco, USA. The Conference on various aspects of Solar Energy / Technologies was held on 9-12 July, 2012 which had at some times 3 parallel sessions and workshops. The Exhibition organized on 10-12 July, 2012 is considered to be one of the biggest Exhibitions in the world regarding Solar Energy – for Solar Photovoltaics, Solar Thermal, Solar Architecture, etc.

In the Conference, DG, SESI gave a presentation on the topic 'The Indian Off-Grid Market' which was part of the theme of the session 'Off-Grid Systems and Rural Electrification-Applications and Markets' on 11th July, 2012. The other speakers in that session were Mr. Ernesto Macias Galan, President, Alliance for Rural Electrification, Belgium, Ms. Richenda Wan Leeuwen, Executive Director, Energy and Climate, Energy Access Initiative, United Nations Foundation, US, Ms. Tetchi Cruz-Capellan, President, Phillipins Solar Power Alliance & Dr. Matthias Vetter, Fraunhofer Institute of Solar Energy Systems ISE, Germany. My presentation was very well received. One of the very prominent dignitaries amongst the audience was Prof. (Dr.) Eicke R. Weber, Director, Fraunhofer Institute of Solar Energy Systems ISE, Germany who specifically expressed satisfaction with the presentation of the DG, SESI. He also wished to have some sort of association between SESI and the world renowned Fraunhofer Institute of Solar Energy Systems ISE, Germany in the development of solar energy.

DG, SESI also took this opportunity of meeting participants from various countries and exchanged visiting cards with them, explaining to them the work being done by SESI in India for promotion of Renewable Energy

Elections for Governing Council of SESI for the period 2013-2014. For details visit SESI Website

Intersolar South America Summit São Paulo, Brazil, August 15, 2012

Global Markets, Trends and Practical Expertise at the Intersolar South America Summit

On August 15, 2012 in São Paulo, international industry experts discuss trends and technologies from across the global solar industry, focusing chiefly on the development of the South American solar sector

São Paulo/Pforzheim/Freiburg, July 25, 2012 – On August 15, the Intersolar South America Summit is debuting in São Paulo, Brazil. By organizing this new event, Intersolar – the world's leading exhibition series for the solar industry – is focusing for the first time on the South American solar industry, one of the most exciting future markets worldwide. The latest conditions and developments in international solar markets are discussed at the summit, with particular attention being given to the South American region. Here, solar power subsidies in Brazil, the role of Brazilian energy utilities, and the development opportunities for the Brazilian PV market occupy the spotlight. Presentations are showcasing a number of successfully completed PV projects to illustrate the enormous potential of the South American solar industry. The concluding panel discussion provides a forum to debate the specific measures that are necessary for realizing an efficient solar energy infrastructure in Brazil.

This year, the Intersolar South America Summit is taking place for the first time in São Paulo, Brazil, on August 15. The summit is a response from the organizers of Intersolar, the world's leading exhibition series for the solar industry, to the increased importance of the South American solar market, which is fast becoming one of the most exciting future markets within the global solar sector. Divided into five different topic areas, the varied conference program provides a detailed insight into the solar industry's most important trends and topics – with Brazil in the limelight. The conference also offers the perfect platform to meet and discuss ideas with national and international representatives and to forge new contacts.

Growth markets, efficient energy supply and technologies of the future

Many key markets worldwide are now faced with the question of how politics and the economy will shape energy supply in the future. The conference's first topic area therefore focuses on the various political and economic conditions and requirements in different markets. The presentation series is introduced by Dr. Murray Cameron, Vice President of the European Photovoltaic Industry Association (EPIA) and Chief Executive Officer of Phoenix Solar AG, Sulzemoos, who provides an overview of international growth markets. Professor Volker Wittwer, advisor at the Fraunhofer Institute for Solar Energy Systems ISE, Freiburg, then speaks on solar energy's importance for future energy supply: This presentation focuses on topics including the latest technological developments in photovoltaics. In the following presentation, Thomas Maslin, Associate Director of IHS Emerging Energy Research, Cambridge, USA, analyzes the South American solar market and its further opportunities for growth.

Brazilian solar market shows enormous potential

Developments in the South American solar market, particularly in Brazil, are currently being observed with keen interest by companies in the international solar industry. Above all, the question of how signals from the Brazilian government will impact on the industry and the market's future potential are commanding the spotlight. For this reason, the second set of conference talks concentrates on subjects including the net metering remuneration system recently introduced by the Brazilian Electricity Regulatory Agency, the Agência Nacional de Energia Elétrica (ANEEL). A further presentation entitled PV 3.0 – Self-Sustaining PV Markets: Brazil as an Example examines the development of photovoltaics into a self-supporting energy solution. The speaker is Prof. Stefan Krauter PHD, Professor at the Institute of Electrical Engineering and Information Technology at the University of Paderborn, as well as founder and CEO of Rio Solar Ltda., Rio de Janeiro, Brazil.

To register and for more information visit www.intersolarsouthamerica.com

If you are interested in participating at the Intersolar South America Summit, please get in touch with the company contact listed below.

About Intersolar

With over 3,500 exhibitors and 120,000+ visitors spanning three continents, Intersolar is the world's leading exhibition series for the solar industry.

The Intersolar South America Summit is taking place for the first time in 2012 as a conference event in São Paulo, Brazil.

Intersolar's storied history of international exhibitions and conferences spans more than 20 years. After Intersolar Europe in Munich, Germany, Intersolar North America in San Francisco opened for the first time in 2008. This was followed by Intersolar India in 2009, which has been held in Mumbai since 2010, and Intersolar China in Beijing, which was launched in 2011.

The Intersolar South America Summit is organized by Solar Promotion International GmbH, Pforzheim and Freiburg Management and Marketing International GmbH (FMMI).

L&T picks up solar EPC order for Rs. 12.5 cr / MW

Is L&T setting a new benchmark in solar EPC prices? Recently, the company said that it has bagged orders for putting up projects worth 10 MW for Rs. 125 crore, that is Rs. 12.5 crore per MW.

L&T does not own solar plants but is a leading player in putting up plants for others on turnkey basis. It currently has an order backlog of Rs. 350 crore.

This comes at a time when Rs. 9 crore per MW has come to be viewed as a benchmark for the industry, with expectations for further decrease in costs.

For instance, rating agency Crisil said that it expects the pace of decline in module prices to slow down in 2012. It said that "capital costs are expected to decline only by 10-13 per cent (emphasis added) to Rs. 8.70 crore to Rs. 9 crore per MW in 2012."

Asked about this, Mr. Shaji John, Chief – Solar Initiatives, Larsen & Toubro Ltd, said that the price of Rs. 12.5 crore per MW is a "culmination of scope, specifications, terms and conditions."

He said that due to non-disclosure agreements, L&T could not divulge the names of the customers or the project specifications.

"However, to just give an example, if we use trackers with high efficiency modules, the cost goes up significantly but also improves the developers' financials," Mr. John said.

The higher per MW prices secured by L&T "indicates that the market is maturing and discerning customers are not averse to paying a higher price for better life-cycle cost advantages," says Mr. Vineeth Vijayaraghavan, Founder and Editor, Panchabuta, a renewable energy newsletter.

Renewable Energy Ministry seeks funds for off-grid solar schemes

With a view to meet rural energy needs, the Ministry of New and Renewable Energy (MNRE) plans to seek financial assistance from the National Clean Energy Fund, (NCEF) to aid off-grid solar projects across the country.

"We are in talks with the Finance Ministry for seeking funds to the tune of Rs. 800 crore from the NCEF to support off-grid solar projects in rural areas," the Renewable Energy Secretary, Mr. Gireesh Pradhan, told PTI here.

The NCEF has been created to provide finances to green energy projects and research ventures aimed at reducing the carbon footprint.

"We expect to get approval for these funds in next six months. We will use it over the next five years," he said.

The funds will be made available to project developers through regional rural and housing finance banks, he said.

"The funds will be provided to the Indian Renewable Energy Development Agency (IREDA) which will disburse it to agencies like Nabard, Sidbi and other institutions for refinance," Mr. Pradhan said.

The Ministry has already allowcated Rs. 300 crore in the 2012-13 Budget for the scheme.

"our intent is to allocate nearly one-third of our Budget for off-grid solar scheme, "Mr. Pradhan said.

According to the 2011 Census, nearly 45 per cent of rural households still do not have access to electricity.

During the 10th Plan, the MNRE electrified 2,617 villages with a total expenditure of Rs. 211 crore, which translates into an average cost of Rs. 8.1 lakh a village.

"As the remaining unelectrified villages become more remote and scattered, the incremental cost of extending grid will go up. At the same time, grid connectivity also brings in the challenge of T&D losses. Thus is it necessary to exploit the available resources of renewable energy locally, which can be achieved through off-grid solutions," Mr. Pradhan said.

The potential area of off-grid solar applications include solar water heating systems, home lighting systems which include solar lanterns, solar cooking systems, solar pumps, small power generating systems.

Solar Power's share rising in energy basket

In the last 10 months, almost 117 million units of electricity consumed were drawn from the sun, at no extra cost to the consumers.

The NTPC Vidyut Vyapar Nigam (NVVN) has fed 117 million units of solar energy into the grid procured from the first batch of the National Solar Mission.

Almost 178 MW of solar power, mainly photovoltaic, is being added to the country's energy mix now. The eight States using this power are Rajasthan, Punjab, Maharashtra, Andhra Pradesh, Odisha, Tamil Nadu, Uttar Pradesh and Karnataka.

Though solar power is more expensive than conventional thermal sources, consumers need not worry. The impact on the end price of electricity is minimal, a senior official from the Ministry of New and Renewable Energy said.

The average bundled cost of solar electricity at the consumer end today is around Rs. 4.5 a unit. This is because the Government has prescribed guidelines under the National Solar Mission, which stipulates that every megawatt of solar power is bundled with conventional power (four units).

In other words, against the generic tariff fixed by the regulatory commission for solar photovoltaic of Rs. 17.91 a unit, the developer (under the Mis-

sion's first batch) sells to NVVN at a discounted rate of about Rs. 12 a unit (weighted average). The distribution companies then source power at this bundled rate as they are compensated by the Government in the form of equal amount of conventional power, the official added.

The Government is pushing renewable energy (from all renewable sources). It proposes to increase it to 30,000 MW in the Twelfth Plan against 14,000 MW in the Eleventh Plan.

The country is experiencing power deficit of about 8-9 per cent at present, down from 10-13 per cent at the start of the Eleventh Plan.

In the second fortnight of July, the peak demand met was 115,000-117,000 MW, and the energy consumed was about 2,650 million units a day, sources said. This was up 6-7 per cent from same period last year. Of these 2,650 million units, 170-180 million units were from renewable sources, mostly wind energy.

India should take lead in defining sustainable development goals post Rio

Noting that the developed countries went on all out offensive at the recently concluded Rio+20 Conference on Sustainable Development to roll back what had been achieved at the first conference in 1992, the country's leading negotiators and thinkers on environment have called upon the developing countries to come out with their own concept of sustainable development goals. Since, the Sustainable Development was going to affect the developed nations, the developing nations like India should define what kind of sustainable development goals they wanted. That was the main thrust of the speakers at a discussion on the outcome of Rio Summit organised by The Energy Resources Institute (TERI). The panellist were country's former chief Climate Change negotiator Ambassador Chandrashekhar Dasgupta, TERI Executive Director RK Pachauri and former UN Undersecretary General and noted economist Nitin Desai, and former Secretary in the Ministry of Environment Pradipto Ghosh, all of them associated with TERI. Ambassador C Dasgupta was of the view that road ahead would focus on the evolution and scope of sustainable development goals (SDGs) and their relation to the Millennium Development Goals'. Mr Desai said the interest and participation of corporate entities and the scientific and academic communities at the Summit was far greater at the Rio Plus 20 Summit than ever before. This is so because the trend is no longer limited to green consumerism, but to green investors, he said.

China Ming Yang links with India's Reliance to develop up to 2.5 GW

China Ming Yang Wind Power Group Ltd., China's third-largest wind-turbine manufacturer, formed a joint venture (JV) with India's Reliance Group to develop 2.5 GW of wind farms in South Asia. Ming Yang will provide engineering, procurement and construction and Reliance will have a supporting role in developing wind projects.

UNFCCC issues carbon credit to ONGC

The World's number 2 exploration & production company ONGC is scoring well on environment performance as well. The United Nations body on Climate Change (UNFCCC - United Nations Framework Convention on Climate Change) has issued a massive kitty of 121,207 carbon credits to ONGC's 51 MW Wind Power project at Bhuj (Gujarat), on 7th June 2012. This is the first issuance of credits from this project and second overall from the oil major's cache of six registered environment-improvement projects -- technically termed 'CDM' projects in UN parlance. Earlier, ONGC had started earning green revenue since March 2010, when its 'Waste Heat Recovery Project at Mumbai High' enabled ONGC to earn revenues from its environment-improvement projects.

Renewable energy certificates witness a record trade in June

In its 16thtrading session, India energy exchange (IEX) witnessed a record trading figure of renewable energy certificates (RECs). Out of the 3, 99,865 RECs that were available for sale, 2, 48,165 RECs were issued - the highest issuance for any month till date. In the non-solar REC segment, IEX received buy bids of 3, 13,973 certificates and sell bids of 3,30,371 certificates against which 2,23,164 non-solar RECs were cleared at ` 2,402/REC. IEX also received buy bids of 9,489 Solar RECs and sell bids of 541 solar RECs against which 336 solar RECs were cleared at ` 12,750/REC.

DuPont sells thin-film solar panels for India power plant

DuPont Co. has sold thin-film panels for a solar project in India. DuPont Apollo, a unit of the Wilmington, Delaware-based chemical maker, supplied the panels to Yantra eSolar India Pvt., owner of the 5 MW project in western Gujarat state. The plant in Charanka

village is scheduled to be connected to the electricity grid by August.

SPU develops country's first solar tracker

June 12, 2012. Researchers at Sardar Patel University (SPU) have designed, developed and implemented an automated dual axis solar tracker system, which works on sunflower motion for a solar power plant. And the country's first indigenously designed solar tracker system also increases solar energy harnessing power of a solar power plant by 45 per cent. Interestingly, this indigenously developed solar power plant with the dual axial auto tracking system has been installed at the terrace of SPU's Department of Physics where it generates up to 1.5 kilowatt per hour (KWh) of electrical power through 20 multi-crystalline solar panels of 75 watt generation capacity each. The system has been designed in such a way that the batteries connected in the circuit stores excess power that can be utilized during the non-solar conditions like early mornings, late evenings or at nights.

Jharkhand to set up 300 MW power plants from renewable sources

Every state government has to sign renewable power purchase obligation (RPO) under the guidelines of Central Energy Regulatory Commission (CERC). Under this obligation a certain percentage of power generation must come from renewable sources. Living up to this obligation, the state government has plans to include 300MWs in form of renewable power which comprises solar power obligation and non-solar power obligation.

India may take up EU carbon tax at Rio

India's concern over European Union (EU) law to tax air carriers for carbon emissions may find an echo at the Rio Conference on sustainable development, with environment ministry calling it an important issue for discussion. The Union Cabinet cleared the mandate for negotiations at Rio, but the meeting saw Union civil aviation minister Ajit Singh flag the concern about EU's Emissions Trading Scheme (ETS). When he asked if ETS would be on the conference agenda, environment minister Jayanthi Natarajan said it was a key concern that needs to be addressed.

Govt to set up investment cell for new energy projects

Targeting an invest $50 billion in renewable energy sector in India in the next five years, the ministry of new and renewable energy (MNRE) is setting up an Investment Promotion Cell for the energy sector to provide a single point of contact for investors, said the Minister of New and Renewable Energy, Mr. Farooq Abdullah, recently in London.

The 50 billon invest will include $19 billion in wind, $25 billion in solar and $3 billion each in the hydro and biomass segments, he added.

"The cell will be our window for potential investors to engage with us and bring their efforts and ideas to fruition," Mr Abdullah said while addressing a Press Conference after an investors' meet recently. More than 40 investors attended the meet.

He asked global investors to invest in India's renewable energy sector and support its quest for a low-carbon and environmentally sustainable growth path.

According to Abdullah, India has seen an "impressive increase in installed power capacity, from about 1,350 MW at the time of independence 65 years ago to about 2,00,000 MW at present". However, despite such big strides, about 33 per cent of India's rural households are still deprived of access to commercial energy sources.

"The average per capita consumption of energy in India is still quite low at around 800 units per annum," he said.

Mr. Abdullah said, "India today stands at fifth position in terms of renewable energy capacity, after the US, China, Germany and Spain, with an installed base of over 25,000 MW, which is around 12.5 per cent of the total power generation capacity, contributing to about 6 per cent in the electricity mix.

"We have decided to increase the share of renewable energy in our power production during the 12th Plan period (2012-17) by increasing the installed capacity by about 30,000 MW," he added.

He said an investor friendly policy framework has given a strong foundation for the growth of the wind sector in India and "today we stand fifth in the world in terms of total installed capacity of about 17,353 MW."

Mr. Abdullah said, "Towards harnessing the bountiful solar energy, my Ministry has started the ambitious Jawaharlal Nehru National Solar Mission which aims to harness 22,000 MW of solar power by 2022."

Biomass, an eco-friendly source for production of electricity, also holds considerable promise for India, he said.

"Our estimates indicate that with the present utilization pattern of crop residues, the amount of surplus biomass materials is in the range of 120-150 million tones, which could generate about 18,000 MW of power. We also have the potential to generate about 5,000 MW through bagasse-based cogeneration," he added.

Over $10 billion was invested in the Indian clean energy sector in 2011, with a substantial quantum coming from foreign direct investments.

The next frontiers of research and development would be off-shore wind, CSP solar, wind forecasting, storage technologies and smart grid, which shall together catapult the renewable sector into a new growth orbit, making it a practical alternative to the existing fossil fuel-based energy technologies.

"The challenge before us in the renewable energy sector, therefore, is to reduce the cost of renewable energy generation. Like many other countries, India too has taken up the challenge squarely, by encouraging economies of scale, easy transfer of technology and indigenous research and development," he said.

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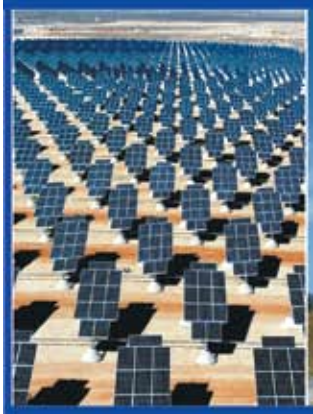

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