

SESI Newsletter

A Monthly Newsletter of Solar Energy Society of India

Vol. II • Issue-6

December 2011

INSIDE

SESI Participates in LED Expo	1
Seminar on Reliable Protection	1
National Solar Mission: Stakeholder Discussions with CEEW	1
SESI Participates in Intersolar	2
SESI invited for Sub-Group 2	2
International Round Table Conf.	2
India has commissioned 186	3
Solar power tariff touches new	3
Tata Power secures finance	3
Indarya Green Power proposes	3
Suntech, Canadian Solar to	3
Suzlon to supply wind turbines	3
Moser Baer to spend \$1 bn on	3
Solar, thermal power to cost	4

Editor: Jagat. S. Jawa

Design & Printed by: Celluloid - 9873798727



SOLAR ENERGY SOCIETY OF INDIA

A-14, Mohan Cooperative Industrial Estate,
Mathura Road, New Delhi-110044

Telephone: 011-65649864, Telefax: 011-26959759

E-mail: dg_sesi@yahoo.com, info@sesi.in,

Website: www.sesi.in

Disclaimer: The information presented in this newsletter has been gathered from various original and public sources.

SESI Participates in LED Expo & LED Summit at Pragati Maidan

SESI had put up a stall in the 5th International LED Expo & LED Summit organized by Media Exposition and events on 1-2-3 December, 2011 at Pragati Maidan, New Delhi. LED Products and Technology combined with Solar Energy is the need and answers to our country's requirement of efficient energy, environment friendly and power saving source. Many visitors to the SESI stall enquired about the activities of the society in the promotion of solar energy in particular and renewable energy in general. There were also enquiries about SESI membership.

Seminar on Reliable Protection for Solar Installation



ESI and Phoenix Contact India Ltd., jointly organized a Technical Seminar on Reliable Protection for Solar Installation on 5th December, 2011 at India Habitat Centre, New Delhi. Shri Ajay Prakash Shrivastava, President, SESI was the Chief Guest in the seminar. Apart from Shri Prafulla Pathak, Shri R.C. Nakul, Shri Raghgenera Aggrwal, G.C. Members of SESI and Shri Jagat S.

Jawa, many SESI members also participated in the above seminar. The main topics covered in the seminar were different causes & source of power surges and their dangerous effects, how to choose surge protection for Solar PV Plnats, Best Installation Practices, Leakage Current Monitoring, Grounding and bonding. This Seminar was very Interactive.

National Solar Mission: Stakeholder Discussions with CEEW and NRDC

SESI along with the Council on Energy, Environment and Water and the Natural Resources Defense Council jointly conducted an assessment and analysis of the Solar Mission in New Delhi on 9th December, 2011. This assessment and associated report would be part of our efforts to accelerate clean energy solutions in India.

Shri Ajay Prakash Shrivastava, President, SESI was the Chief Guest during the discussion. Shri Prafulla Pathak, Shri R.C. Nakul, Shri Raghavendra Agrawal members of GC of SESI and Shri Jagat S. Jawa, DG, SESI took part in the above discussion.

SESI Participates in Intersolar India 2011 Mumbai



Intersolar India 2011 was organized at Mumbai by Solar Promotion International GmbH, Germany. There was two days conference on 13-14 December, 2011 at Leela Kempinski Hotel, Mumbai and Exhibition of the Solar Industry at Bombay Exhibition Center on 14-16 December, 2011. Shri Rabindra Satpathy, Vice President, (West) SESI and President RIL (Solar Energy Group) chaired one of the session in the Conference. Many of the esteemed SESI Members such as Bergen Associates, Reliance Industries Limited (Solar Energy Group), Maharishi Solar Technology, RenewSys, etc., put up their stalls in the exhibition. On invitation of the organizers, DG, SESI also participated in the Conference

SESI invited for Sub-Group 2 Meeting of the Indo – German Energy Forum

On 15 December, 2011, Sub-Group 2 Meeting of the Indo-German Energy Forum was held at Leela Kempinski Hotel, Mumbai. DG, SESI on invitation of the organizer participated in the above meeting Mr. Tarun Kapoor, Joint Secretary, MNRE and Dr. Martin Schope, Head of Division, BMU, were the Chairpersons of Sub-Group 2 from Indian and German sides respectively.

Dr. Ashvini Kumar, Director, MNRE give an overview on the status of the implementation of India's National Solar Mission. Dr. Martin explained in brief recent energy developments and the transformation of Germany's energy system focusing mainly on photovoltaics.

International Round Table Conference

Rajiv Gandhi Proudyogiki Vishwavidyalaya (State Technological University of M.P.), Bhopal organized an International Round Table Conference on Low Carbon Technologies & Carbon Capture and Sequestration on 20th December, 2011 at Hotel Ashoka Lake View, Bhopal. Among other things, developments in various green energy technologies were discussed in the Conference. Shri V.S. Verma, Member, Central Electricity Regulatory Commission was the Chairperson of the Conference and DG, SESI on invitation of the organizers, participated in this one day Round Table Conference which was also attended by participants from Japan.

SESI members are requested to motivate their colleagues and friends to become members of Solar Energy Society of India (SESI)

India has commissioned 186 MW solar projects

India has so far commissioned solar projects with capacity of about 186 megawatt, of which 40 MW worth of off-grid projects were commissioned in 2011. India plans to build an initial capacity of 1 GW of solar power by 2013, enough to power close to 1 million homes. It would then add 3-10 GW by 2017, and hopes to grow that to 20 GW by 2022. Coal currently accounts for 55 percent of India's power generation capacity of 182,344 MW.

Solar power tariff touches new low as competition rises

Solar power tariff is witnessing decline as investors are bidding aggressively and project cost is getting cheaper. It is evident from the proposed revised tariff for solar power by the Gujarat Electricity Regulatory Commission (GERC) and now outcome of reverse bidding for Batch II for first phase of Jawaharlal Nehru National Solar Mission (JNNSM). Industry sources believe that new benchmarks in solar tariff will make market more competitive and boost the renewable energy market.

Tata Power secures finance for Gujarat solar project

Tata Power said it has tied up finance for its ₹ 365 crore solar photovoltaic power project at Mithapur in Gujarat. The company's subsidiary Tata Power Renewable Energy Ltd has secured the entire debt requirement for the project through a consortium of domestic lenders, namely State Bank of India and Export Import Bank of India with

SBI Capital Markets Ltd acting as sole financial advisor and arranger. The 25 MW project is being funded through a debt equity mix of 70:30. The project financing comprises of equity of ₹ 110 crore and rupee term loans of ₹ 255 crore. The company has signed a power purchase agreement for the project with Gujarat state distribution company. This plant, bagged under the state's solar power policy 2009, would be ready by end-December 2011.

Indarya Green Power proposes integrated energy park in Gujarat

Indarya Green Power is planning to commission integrated renewable energy park in 2000 acre in Gujarat. Proposed park will house 300 MW solar power generation capacity and 25 MW wind-mill project in the first phase. The company is claiming have chalked out an investment plan to the tune of Rs 4,500 crore, which includes manufacturing facilities of solar photovoltaic panels with capacity to produce 500 MW SPV panels per year. This park will also house research and development facility for renewable energy.

Suntech, Canadian Solar to supply Tata Power's India Plant

Tata Power Co., one of India's biggest non-state generators, will order equipment for a 3.65 billion-rupee (\$68 million) solar project from panel suppliers including Suntech Power Holdings Co. Suntech, the world's biggest panel maker, Canadian Solar Inc. and Tata BP Solar Ltd. will supply the 25-megawatt plant in western Gujarat state with crystalline silicon-based modules. The project in Mithapur has

received financing from local banks led by State Bank of India and Export-Import Bank of India. The banks will fund 70 percent of the project with rupee term loans, Tata Power said.

Suzlon to supply wind turbines for project in South Africa

Suzlon Energy said it has received approval from the South African government to supply wind turbines for the upcoming Cookhouse Wind Energy Facility at Eastern Cape. It is one of the leading renewable energy projects in that country. South Africa's Minister for Energy, Dipuo Peters has announced her Department's approval of the facility, which will utilise Suzlon's 2.1 MW turbines.

Moser Baer to spend \$1 bn on solar plants

Moser Baer Clean Energy, the renewable energy vertical of Moser Baer India, said it is investing \$1 billion (₹ 5,100 crore) for setting up solar projects with a cumulative capacity of 300 MW in the country and abroad in the next nine months. These projects would be set up in Gujarat, Orissa, West Bengal and Rajasthan in India, as well as abroad in countries like Germany, Italy, the UK. The company also has ambitious plans for augmenting its solar power generation capacity to 1 GW, or 1,000 MW, by 2015. The company recently commissioned a 23.8-MW solar farm at Lauterbach, in Germany. The project has been constructed with long-term debt funding from DKB Bank, Germany, which has also financed its Thuringen and Meissens projects. Moser Baer Clean Energy also commissioned a 30-MW solar farm, developed at an approximate investment of ₹ 465 crore, in Banaskantha district of Gujarat in

October this year. The solar farm, spread over 305 acres of land, is likely to generate about 52 million Kwh of energy, which would provide electricity to nearly 50,000 homes everyday and save about 50,000 tonnes in carbon emissions annually.

Solar, thermal power to cost same in 5 yrs

India has advanced the target date for selling solar power at the same rate as conventional electricity by five years to 2017 as tariffs have fallen significantly in the latest projects on offer and the trend is likely to continue. Companies have bid tariffs as low at ₹ 7.49 per unit for solar plants this year, encouraging the renewable energy ministry to say that target of achieving "grid parity", or selling solar electricity at the same rate as power from other sources, would be achieved much faster than earlier envisaged. Tariff from existing coal projects is around ₹ 5.50/unit to 6/unit, propped up by the shortage of domestic supply of coal and greater dependence on costly imports. The average tariff offered in the current round of bidding under the National Solar Mission was ₹ 8.78 per unit. The lowest bid was ₹ 7.49 per unit for a 5-megawatt project. For the current round, the maximum capacity was set as 50 MW per bidding company with 3 projects allotted to each. Among the 28 provisionally sanctioned projects, 8 are of 20 MW, another 10 are of 10 MW. Four projects are of 15 MW and 6 projects of 5 MW. Even the foreign players are encouraged by steps taken by India in the solar energy domain. The Central electricity regulation committee (CERC) reduced the capital costs on solar cells, which is the major reason for falling tariffs. The cost of setting up a solar power plant per megawatt is set to fall from current ₹ 14 crore to 10 crore in 2012-13.

India to Build 400 Megawatts of Solar, Two-Thirds Less Than Previously Forecasted

India will complete 400 megawatts of solar power connected to the grid this fiscal year, two-thirds less than previously forecast by state and central Govts. India has so far built 180 megawatts during the year ending March 31, the Ministry of New and Renewable Energy said in an e-mailed statement today. Gujarat had planned to build more than 900 megawatts during the fiscal year as part of a regional solar program, according to documents obtained from the state government.

In addition, the central Govt's National Solar Mission had a forecast of 302 MW, according to a list of plans from the ministry. The mission involved 150 MW of operations awarded by auction, 98 MW of rooftop developments and 54 megawatts of capacity under a program to consolidate state-level projects. India's renewable energy capacity has grown 20 percent in 2011 to 22,447 megawatts, according to the statement. Wind farms made up most of the increase, adding a total of 2,827 megawatts. Source: Bloomberg, Dec 30

Gujarat Electricity Regulatory Commission to hear petitions of Solar power developers

The fate of as many as 29 odd solar power developers in Gujarat will be decided by the electricity regulator, Gujarat Electricity Regulatory Commission (GERC) on Friday, December 30, 2011 as the later will take up the hearing on the petitions filed by the companies for extension of control period of Solar power in the state. The developers of about 450 megawatt solar power generation capacities in Gujarat have demanded an extension of the current tariff regime, the deadline for which comes to an end on Decem-

ber 31, 2011.

"Solar power developers have petitioned the regulator for extension of the current tariff structure. About 29 companies have filed the petitions, for which the hearing will start tomorrow," informed a source at GERC. According to the GERC website, some of the developers, who have moved the petition, includes notables like Tata Power Renewable Energy Ltd, GMR Gujarat Solar Power Pvt. Ltd, Kemrock Industries and Exports Ltd and Claris Life Sciences Limited have filed the petitions with the regulator.

The industry association, Solar Energy Association of Gujarat is also one of the petitioners. In order to encourage solar power projects in the state, the State Govt launched a solar policy in 2009, under which a 25-year power purchase agreement is to be signed with the company enabling them to avail tariff for photovoltaic projects at Rs 15 per unit or kilowatt hour for the first 12 years and Rs 5 per unit from the 13th to the 25th year.

For Solar Thermal projects the tariff is fixed at Rs 11 per unit for the first 12 years and Rs 5 per unit from the 13th to the 25th year. All the projects, that have signed the agreements, would have to get commissioned by December 31, 2011. As per the terms of PPAs, if a developer fails to commission the project by the set deadline, it is liable to pay a penalty of Rs 10,000 per day per MW to Gujarat Urja Vikas Nigam Ltd (GUVNL), the State-owned power distribution utility, with which the PPAs have been signed.

According to the information available with the state government officials, out of the solar power capacity committed under PPAs, only 140 MW of capacity has been commissioned in the state so far. Earlier, the state government had anticipated commissioning of 300 MW by the end of December, 2011. Interestingly, the state power

regulator has proposed new tariff structure for those solar power producers, who will commission their plants in the state during the period from January 29, 2012 to March 31, 2015. However, the new structure excludes solar power projects, for which PPAs have already been signed. Source: Business Standard, Dec 30

Tata Power signs the share purchase agreement to acquire 51% BP Alternative Energy Holdings equity in Tata BP Solar

Tata Power, India's largest integrated private power player, today announced the signing of a share purchase agreement with BP Alternative Energy Holdings to purchase their 51% Equity and Preference shares in the Joint Venture- Tata BP Solar. On completion of transaction, Tata Power will own 100% of the company. Approval as required from the Reserve Bank of India will need to be obtained before the transaction is completed. The transaction will also entail a change in control in the Company and hence the approval of The Competition Commission of India (CCI) will be required for completing this transaction.

Tata Power and BP have agreed that the Company will continue to enjoy access to certain BP technology until 2013. The Company and BP will enter into a technology agreement to give effect to this understanding. To provide for a smooth transition in respect of branding and fulfilment of recertification requirements for solar PV modules, Tata Power and BP have agreed for a transition period for product and non-product related rebranding and certification.

Tata BP Solar India Limited (JV) was incorporated as a Joint Venture between Tata Exports Ltd (renamed Tata International Limited) and BP Solar India Holdings Limited (renamed BP Alter-

native Energy Holdings Limited) (BP) in 1989 for the purpose of manufacturing photovoltaic (PV) cells and modules. BP holds a 51% stake in the share capital of the JV. Tata BP Solar has a 125 MW solar module manufacturing capacity. Source: Tata Power, Dec 27

Gujarat Venture Finance Limited to float Rs 1,000 Crore Indo-China Green Energy Fund:

The fund is specific to Chinese companies interested in setting up equipment manufacturing plants in India

State-controlled Gujarat Venture Finance Limited (GVFL) will launch a Rs 1,000-crore Green Energy fund to attract Chinese companies, a move aimed at strengthening the trade ties between the two regions. H C Pattnaik, Executive Director, GVFL, said, "The fund is specific to Chinese companies interested in setting up plants for equipment manufacturing in India in the fields of solar, wind, hydro and other alternative energy projects." GVFL, which had launched a similar fund in clean energy ventures and infrastructure in January 2011, will manage the fund.

Likely to be called Golden Gujarat China fund and being launched on February 17, 2012, it will be registered with markets regulator Securities and Exchange Board of India (SEBI) soon. "As per SEBI rules, minimum 5% investment should come from anchor investors, which in this case could be the state or the Central government. The rest will come from China," Pattnaik said.

The fund will invest in equity on projects, which can be implemented anywhere in India and will use Chinese technology. GVFL had announced the Rs 1000 Crore Infrastructure Fund - Golden Gujarat Growth Fund Series -1 - during the Vibrant Gujarat Global Investors' Summit 2011 held in January 2011. The company is expected to

announce the first phase of closure at Rs 400 Crore at the end of this month.

"The new fund is similar to the Golden Gujarat Fund. We look forward to tying up with some national companies for the China fund. The project will be finalised in February during India-China finance conference," Pattnaik added. Source: Times of India, Dec 21

India May Join U.S.-China Solar Trade Spat

India may jump into an escalating U.S.-China trade fight over solar energy as local manufacturers lobby New Delhi for protection against imports from rivals including First Solar and Suntech Power Holdings. India may initiate an anti-dumping probe in a month focused on imports of Chinese solar products, China's Commerce Ministry said in a statement yesterday. India's Commerce Secretary Rahul Khullar declined to comment in a phone call.

Indian manufacturers are also seeking a 15 % tariff on imports of thin-film solar panels, the country's Renewable Energy Ministry's Joint Secretary, Tarun Kapoor said. The biggest thin-film panel company is Tempe, Arizona-based First Solar. Indian suppliers such as Tata BP Solar India, Indosolar, and Moser Baer India have failed to benefit from a rule intended to spawn a domestic manufacturing hub in one of the world's fastest-growing markets. Instead, low-cost Chinese rivals like Suntech and Trina Solar and U.S. firms backed by preferential trade finance including First Solar have reaped most of the equipment orders for 1,100 MW of plants to be built by January. "It's a disaster in the making," said K. Subramanya, CEO of Tata BP Solar, 51 percent-owned by BP Plc and India's third-biggest cell and panel maker. "I'm feeling a bit of anguish because we want solar to succeed but we need fair competition."

Shan Solar, Chennai puts Rs 720 Crore cell project on hold

In view of the global glut, Shan Solar has decided to shelve its Rs 720 Crore project for manufacturing polysilicon cells. The project was to come up near Shan Solar's module-making plant in the Sri City industrial estate, 55 km north of Chennai. The company is not likely to revisit the plan at least until June 2012, Mr C. Suryaprasad, CEO and Joint Managing Director, Shan Solar, told Business Line today. The shelving of the project underlines the state of Indian solar power equipment manufacturing in India.

The country's two biggest manufacturers, Tata BP Solar and Indosolar, are lying shut for want of orders ironically at a time when a Rs 80,000 Crore National Solar Mission is being rolled out in the country. As for Shan Solar, it has just commissioned its Rs 80 Crore module plant, capable of delivering 30 MW worth of modules. It had intended to go a step down the value chain and also put up a cell plant which calls for a large investment. Mr Suryaprasad said the module plant has just gone on stream and the company has picked up some orders from Europe.

However, the plant is not operating to its full capacity. Indian manufacturers are unable to compete with the products arriving in from China and the US and they have asked the Government to impose a 15 per cent duty on imported modules and cells. Indian companies allege that while the Chinese are dumping (selling below cost), the Americans especially companies like First Solar that are in the 'thin film' technology are able to grab the market because they are backed by ultra low interest credit from the US Exim Bank. Source: The Hindu Business Line, Dec 20

Karnataka Energy dept stays Solar Power plant tender process

Small firms complain bidding process favoured big companies

The Karnataka Energy Department has stayed the tender process for setting up solar power plants, following complaints from small developers.

The Karnataka Renewable Energy Development Limited (KREDL) had released a request for proposal (RFP) inviting tenders for setting up 80-MW solar thermal and solar photovoltaic projects in accordance with the State's renewable energy policy to make capacity additions of 126 MW of solar power in the next five years. The power purchase agreement tariff fixed by KREDL quoted Rs 14.50 per unit in accordance with the amount fixed by the Karnataka Electricity Regulatory Commission (KERC).

The bids for the projects closed on November 24, 2011 and 22 bidders took part. However, following complaints by small time developers, the Energy Department put them in abeyance and issued notice to KREDL. An appeal by HBM Solar Power to the Appellate Authority in the Energy Department stated that KREDL should have followed e-tendering procedure in accordance with the Karnataka Transparency in Public Procurement Act, 1999, considering the huge sums involved.

"They have followed manual tender procedure to favour big business houses and the process is in violation of rules and is arbitrary in nature," they submitted.

KREDL was also offering a tariff for solar power plants for 25 years as opposed to most power purchase agreements (PPA) for wind, hydro and biomass units, which were usually for a period of 10 years. HBM had also complained that the bidder had to submit Rs 20 lakh as security bid per MW,

which was beyond the capacity of small units and favoured selected big business houses, which could be picked on a selective basis by KREDL.

They also contested the Rs 30 lakh/MW performance guarantee to discoms, which was irrational and once again beyond the capacity of small and medium industries. "Though KERC had fixed a rate of Rs 14.50 (~\$0.27) a unit for solar photovoltaic projects, the reality is that the cost per MW of solar photovoltaic projects has come down to less than Rs nine crore (~\$1.6M) and the PPA tariff can be fixed around Rs seven to eight (~\$0.12 to 0.14) per unit," the complaint stated. KREDL Managing Director Prasanna Kumar, however, denied any wrongdoing on their part.

'No violation': "KREDL is not in the list of companies which are following the e-tendering process. So there is no violation," he maintained. Kumar insisted that several developers had complained about the problems in uploading the bulky documents, if the entire process was online. He said they (KREDL) would respond to the notice received from the Appellate Authority and were listing out the reasons.

"In a few days, we will get this stay order vacated," he said. Kumar said that departments were enlisting for e-tendering in a phased manner and they (KREDL) would shortly be applying as well. "All procedures have been followed carefully with this bidding, but we are also open to suggestions," Kumar said.

Deccan Herald had earlier reported about the complaints regarding the Request for Proposal (RFP) floated by KREDL, which had drawn criticism from small developers. Apart from the high rates quoted for the security bid and performance guarantee, companies had questioned the ability of the Escoms to pay the developers the promised the tariff of Rs 14.50 a unit. Source: Deccan Herald, Dec 13

2nd Annual India Solar Energy Summit, 2012

23rd – 24th February, 2012 – New Delhi, India

After the remarkable success of the 1st Annual India Solar Energy Summit in 2011, Noppen is hosting the 2nd Annual India Solar Energy Summit, in New Delhi India. The 2nd India Solar Energy Summit 2012 will feature the most prominent industry leaders and government officials from across the globe providing informative and inspiring discussions pertaining to India's current needs and their ambitious future.

Exclusive Opportunities Available!

At the 2nd Annual India Solar Energy Summit, 2012, your company will get a chance to:

- Meet pre-qualified industry leaders
- Increase your brand recognition within the marketplace
- Create new partnerships and alliances
- Develop relationships through new networking opportunities and showcase new technologies and applications to a targeted audience of high-profile decision makers

Testimonials

"The summit was very useful and created awareness of global solar development especially for new comers in the solar field. I feel it's necessary such a summit would occur very frequently."

Karnataka Power Corporation Ltd

"The event really catered to the requirements of manufactures in India. Thanks to the event organizers for such a knowledgeable conference. Your people are doing a great job"

Medhaj Techno Concepts Pvt Ltd

For further information on the summit, please visit:

[http:// www.indiasolarenergysummit.com/](http://www.indiasolarenergysummit.com/)

For more information please contact:

Vishnu Rao, Marketing Communication

Email: vishnu@blr.noppen.com.cn

T: +91803056 4000- M: +9199452 70391

Collin Lawrence

Email: collin@blr.noppen.com.cn

T: +91 80 3056 4017. M: +91 96206 24943

Website: www.noppen.com.cn



DD BERG PROJECT CONSULTANTS PVT. LTD.



Solar Farm



**Telecommunication
Solution**



Water Pumping



Off Grid System

DD Berg is a diversified company of Bergen Group having multinational foot prints in the field of Research and Development, Consultancy, Turnkey Solutions in the sector of Electronics Manufacturing and Renewable Energies.

With persistence and consistence pursuit of quality and executing excellence our experts strive to provide the customers with complete outstanding solutions.

We at this point are equipped for undertaking assignments and providing solutions for the Solar Farms on EPC basis to be ready for the upcoming **Jawaharlal Nehru National Solar Mission**.

“ We dedicate ourselves to provide the whole world with better PV solutions progressively “

Our Strengths: Design -to –Delivery

- Project Design
- Site Visit for Solar Farms
- Equipment Selection
- Construction – Facility & Utility
- System Designing (Component Selection)
- Implementation
- Commissioning – Process Optimization
- Training – maintenance & manpower Development
- Power Evacuation
- Sales and Marketing
- Project Delivery

email: Info@ddberg.com

www.ddberg.com

690-691, Phase- V, Udyog Vihar, Gurgaon-122016(Haryana) Tel: +91-124-4002342-43, Telefax: +91-124-4002344.