3rd South Asia Renewable Energy Conference 2008

Towards Sustainable Business Model

24th – 25th April 2008, New Delhi

RECOMMENDATIONS

The 3rd South Asia Renewable Energy Conference organized by ASSOCHAM was held on 24th- 25th April 2008 in New Delhi. The Conference had support from the Ministry of New and Renewable Energy, Ministry of Environment & Forests and Department of Science & Technology. Dr. Kirit S Parikh, Hon'ble Member, Planning Commission, Government of India delivered the Inaugural address while the Keynote address was given by Dr. Robert K Dixon, NSC – CEQ Sr Coordinator for Energy Security & Climate Change, USA. The panel of distinguished speakers included Mr. Rakesh Bakshi, Chairman, ASSOCHAM Expert Committee on New & Renewable Energy and Managing Director, RRB Energy Ltd., Mr. Harish Mehta, Director, Suzlon Group of Companies, Mr. M Marc Fonbaustier, Minister Counselor, French Embassy, Mr. K L Chugh, Senior Member, ASSOCHAM Managing Committee and Mr. D S Rawat, Secretary General, ASSOCHAM.

The Conference was well attended by over 200 representatives including policy makers, government officials, diplomats, investors, service providers & other concerned stakeholders from trade and industry which includes speakers/participants from South Asian nations as well as from advanced economies.

Other Key Speakers on Technical Sessions were Dr. Pradeep Monga, Chief & Deputy to the Director, UNIDO, Mr. K. Kasthoorirangaian, Vice Chairman, Indian Wind Power Association, Dr. Satish Kumar, Chief of Party, USAID, Mr. Chhimi Dorji, Deputy Executive Engineer, Ministry of Economic Affairs, Bhutan, Mr. Kuljit Singh, Partner, Ernst & Young, Ms. Sumita Misra, IAS, Director, HAREDA, Mr. Mangal Das Maharjan, National Project Director, Renewable Energy Project, Nepal, Mr. Ranjit Shastri, Executive Director, Indian Venture Capitalist Association, Mr Prodyut Mukherjee, Programme Officer, Winrock International India, Mr. Sarvesh Kumar, Dy Managing Director, RRB Energy Ltd, Dr. A. K. Singhal, Scientist, Ministry of New & Renewable Energy, Govt. of India, Mr. Anoop Kumar, Group General Manager, ONGC, Mr. Sheeraz N. Khan, CEO, Marvel Energy (Pvt.) Ltd., Pakistan, Mr. Ashok B Chakraborty, Group General Manager – Head, Carbon Management Group, ONGC, Mr. Bratin Roy - Product Manager (CDM) TÜV SÜD South Asia, Mr. Sudipta Das, Partner, Ernst & Young, Mr. V. Raghu, Secretary General, Indian Wind Power Association, Prof. Arun Kumar, Head, Alternate Hydro Energy Centre, IIT Roorkee, Mr. Subodh Garg, General Manager, Rural Electrification Corporation Ltd, Ms. Anjuli Sivaramakrishnan, Senior Associate & Team Leader, Kochhar & Co., Mr. Anuj Prakash, Chief Mechanical Engineer, Indian Railways, Mr. Anirudh Gautam, Director Research (Engine Development), RDSO, Dr. D K Khare, Director, MNRE, Dr. R Sarin, Chief Research Manager, IOC, R&D, Dr. Bibek Bandyopadhyay, Advisor & Head, Solar Energy Centre, MNRE, Dr. S.C. Mullick, Professor, Centre for Energy Studies, IIT, Delhi, Mr. Amit Kumar, Head Northern Region, Tata BP Solar and Dr. C. Palanippan, CEO, Planters Energy Network.

The South Asian region, which comprises Afghanistan, Bangladesh, Bhutan , India, Maldives, Nepal, Pakistan and Sri Lanka is home to 1.3 billion people, close to a quarter of the world's population. The region is currently experiencing a rapid growth in energy demand, accompanying with economic growth and industrialization. Adequate energy supply is therefore, a major challenge facing the economies in the region, which offers immense opportunities for tapping the renewable energy potential.

The countries in South Asian region have common requirement for promoting Renewable Energy technologies which are related to environmental issues at one end and servicing the large rural

population at other end. Though each country have made commitments towards developing the Renewable Energy sector, which are at various levels of effectiveness, a regional RE policy integrating targets and visions of various departments and with an effective mechanism based on PPP will provide a more comprehensive and sustainable solutions.

Having considered the suggestions of the speakers, delegates, resource persons and after detailed discussions and deliberations the recommendations evolved during the two day Conference are given below:

Sustainable Path to Progress

Rising oil prices and climate change issues are shaping global energy agenda. Renewable energy has become a viable commercial option for power generation and fuel switching in industry, transport (including railways) in many places. South Asian nations with rising energy needs and large renewable energy potential has to choose the renewable energy option for sustainable path to development.

In this initiative the member nations have to replicate the success models from other nations and encourage regional trade in renewable energy for economic growth.

Energy for the Industry

There are immense untapped opportunities to promote renewable energy for power generation and industrial application. Matching appropriate renewable energy technology with required energy services for specific industry is a challenge. In addition there is a need for supporting training and capacity building for manufacturers, local assembly and maintenance of renewable energy technologies/systems.

Overcoming barriers

There are a number of barriers to commercialization of renewable energy technologies (RET) such as :

- RETs often require higher support upfront costs and lack of information, technical manpower and markets further constrain their development.

- Also subsidies for conventional energy provide unfair disadvantage to Renewable Energy since economic, social and environmental benefits of Renewable Energy are not taken into account.

- Although RET prices are decreasing through up scaling and technological evolution, but there is a need to create a level playing field, through appropriate policies and regulatory enabling framework.

Renewable Energy Policy Framework

At present there are no specific policies to promote renewable energy for industrial applications (except for cogeneration).

- Renewable Energy based energy services for industries can add to energy and climate security at the global and regional level in developing countries.

- Provision of financial incentives through fiscal and development policy instruments could catalyze Renewable Energy adoption by SME (across all Renewable Energies – biomas and solar in specific).

- Clusters approach is needed to achieve economies of scale and provide for specific solutions to specific industry.

- It is also equally important to formulate policies that promote usage of cleaner energy technologies and newer options to curb the rising climate change effect.

Use of Biomass and Biofuels

Transportation sector being the major consumer of energy and railways as preferred mode of transport there are significant scope for use of bio-fuels in the railways. Bio-diesel can be used in medium speed diesel engines. Initial engine test bid and trails have shown promising results in use of biodiesel as alternative fuel for Diesel traction on Indian Railways. Optimization of the engine parameters are required for widespread use of Biodiesel on diesel locomotives, however raw material availability and favourable policy initiative are critical to success.

According to United States ' National Biodiesel Board' , the production of use of bio-diesel compared to petroleum diesel resulted in 80% reduction in carbon dioxide. Hence, bio-diesel projects also have potential for availing CDM benefits.

Biomass being the principal source of renewable energy in our region, there is an urgent need for development of MW Scale Advance Biomass Gasification technology, micro turbines etc by providing incentives to promoters and ESCOs through soft loan grants

Growing bio-fuels output would compete with food crops for water, land and capital and thereby increasing food prices. It is therefore imperative to have proper policy framework in place which gives due consideration to all the inter-departmental issues.

Solar energy for urban areas

Solar radiation, abundantly available in our region can be utilized for thermal as well as photovoltaic applications. Among solar thermal applications solar water heating systems provide a good option to be used in homes and large capacity SWHS for hotels, hospitals and industries. Similarly Solar Air Heating System can meet process heat requirements in many industries. Solar photovoltaic can be used for lighting and powering various electrical appliance.

New Solar technologies given as under should be promoted

Stand-alone (Off-grid) power plants

- Electricity is used to charge a battery bank. This power is converted to AC for powering loads.

Grid-connected centralized systems

- Delivers electricity directly to the grid through inverter during sunshine hours.

Grid-connected distributed systems

- Provide power to grid-connected customers or directly to the electricity network.

Adoption of Public Private and Community Partnership

Public private partnership arrangement like Community Energy Service Provider which provides energy service for stand-alone solar systems and other sources to the users (communicates/institutions) through a service agreement, against payment of a tax. Such mechanism can work for decentralized village electrification based on diesel generating sets running on straight run Jatropha oil . Such projects offer a lot of learning and can serve as a model for electrifying other remote villages.

Considering the vast majority of rural population in this part of the world and the need for improving the socio-economic condition of those areas, policy initiatives and effective implementation plans would result in easy & effective penetration of some of the technologies like bio-gas plants, improved chulas, solar photovoltaic based pump with community level partnership.

Opportunities for India in Carbon Market

The Renewable Energy sector is being promoted by the Indian government in a big way, through favourable investment climate, fiscal incentives, and creating a stable regulatory regime. The Government of India has put its whole hearted effort in taking different policy measures to create an environmentally sustainable energy value chain.

Carbon market incentives and carbon financing can help in easy adoption of new and cleaner technologies, stimulate investors to invest in R&D to search for low carbon intensive opportunities.

The Voluntary Carbon Market is coming up in a big way and renewable energy projects top the preference list of VER buyers. Promoters of those projects that help in reducing green house gas emissions but do not qualify for CDM benefits can explore voluntary markets. These projects contribute immensely to the sustainable development of a country.