



India – Japan Energy Forum 2013 "Conference"



Expanding technology cooperation in energy efficiency, renewables
and smart community



The Energy and Resources Institute

10-11 September 2013
Hotel Le Meridien, Janpath, New Delhi



Energy growth is directly linked to well-being and prosperity across the globe. Meeting the growing demand for energy in a safe and environmentally responsible manner is a key challenge for all economies. The increasing demand for power has led to a corresponding increase in usage of fossil fuels which has had an adverse impact on environment. In this context, efficient use of energy along with using renewable sources of energy is of paramount importance. This is true for both large industries and small and medium enterprises as well as in the commercial and residential sectors. It has now been accepted globally that one of the most important challenges facing governments and business community world over is to find cost effective sustainable solutions to their ever increasing energy needs. The Indian and Japanese experts have been exchanging their ideas towards an energy secure sustainable model of growth through various platforms at an international level.

Building up on the success of the previous editions of India Japan Energy Forums, TERI (The Energy and Resources Institute), India and NEDO (New Energy and Technology Development Organization), Japan are co-hosting the fifth edition of the India-

Japan Energy Forum on 10—11 September, 2013 at Hotel Le Meridien, New Delhi. The first four editions of the Forum, held in December 2006, February 2008, February 2010 and January 2012 focused on national energy policies; promoting technology cooperation in energy efficiency and renewable energy; energy conservation; and climate change. These forums have provided a platform to relevant policy makers, business communities, technocrats and academicians to exchange their knowledge and experiences. During the 6th India-Japan Energy Dialogue held in Tokyo on 10 October, 2012 the Deputy Chairman of the Planning Commission of India and the Minister of Economy, Trade and Industry of Japan reiterated the importance of India-Japan Energy Forums in promoting industrial and technology cooperation between the two countries and acknowledged that regular inputs from the forum to the dialogue have facilitated expansion of bilateral energy cooperation on a commercial basis.

The 2013 edition of the forum aims to further expand technology cooperation between the two countries in the area of energy efficiency and renewable energy. The forum will be



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organized in two parts—a Conference and an Exhibition. At the “Conference”, eminent speakers in energy-related fields from the private and public sectors of both countries will meet and deliberate on various aspects related to energy efficiency and renewable energy with a focus on building smart communities. In addition, findings from two empirical research studies shall also be presented at the Conference. The studies focus on means to accelerate development and deployment of smart grid technologies, Small Wind Power, Small Hydro Power and second generation biofuels in India. The “Exhibition” will provide an excellent opportunity to Japanese technology suppliers to showcase their technologies for the benefit of the Indian industry.

The Indian growth story has put forward formidable challenges in meeting its energy needs and providing adequate energy of desired quality in various forms to users in a sustainable manner and at reasonable costs. If India needs to sustain an economic growth rate of 8% to 10% through next 20 years till 2031-32, it would, in the very least, need to grow its primary energy supply by 3 to 4 times and electricity supply by 5 to 7 times of today's consumption. In addition, India's total commercial energy supply would need to grow at the rate of 6% per annum while its total primary energy supply would need to grow at 5% annually. Conserving energy is one the most proven and cost-efficient ways to partly meet this requirement. This necessitates promoting energy efficiency and mainstreaming renewable energy technologies like wind, small hydro, solar and biomass that offer enormous economic, social and environmental benefits. It is also imperative to focus on smart grids, which can enable the utilities to manage the load through both supply and demand side interventions. Smart grids is a significant technology enabler, allowing consumer to participate in energy usage decisions while optimizing grid operations. The Government of India has already embarked

upon an ambitious plan towards development of smart grid technologies in the power sector by establishing India Smart Grid Forum and India Smart Grid Task Force and launching of National Mission on Electric Mobility with a target of 6 million electric vehicles by 2020. Fourteen smart grid projects are under implementation in various Indian states. Many smart communities are also being established along the Delhi-Mumbai Industrial Corridor with technical assistance from Japanese companies. India is also making rapid strides in terms of deploying various renewable energy technologies. The National Action Plan on Climate Change (NAPCC) lays special emphasis on both energy efficiency and promotion of renewable energy technologies. Two separate missions, one each focusing on energy efficiency and renewable energy have accelerated activities in these two fields and various ambitious schemes like the PAT (Perform, Achieve and Trade) have been launched.

Japan has a long history of energy efficiency policy which gained momentum during the 1970s. Lacking domestic energy resources, Japan quickly recognized the critical connections between economic growth and the pressing need for energy efficiency. The two oil crises that exposed the vulnerability of the Japanese economy, and added real momentum to the Japanese Government's efforts to achieve great success in energy conservation. Starting with the Energy Conservation Act of 1979, which has been amended several times, a host of measures and acts have been adopted to promote energy conservation in four major energy using sectors: industrial/factories, transport, commercial/residential buildings and equipment/machinery. These included the first integrated energy policy introduced in 2002; the Basic Act on Energy Policy in 2006 which unveiled the New National Energy Strategy; and initiatives like the Top Runners Program and Small Group Activities. The latest initiative is the Basic Energy



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Plan 2010 (or Strategic Energy Plan) pursuing seven objectives to be achieved by 2030 : i) enhanced energy security; ii) policy improvement to deal with global warming; iii) economic growth with energy as the principal driver; iv) safety of energy supply, iv) an efficient Japanese energy market, v) restructuring the Japanese energy industry, and vii) public awareness and acceptance. These efforts to reduce dependence on oil coupled with schemes aimed at reducing energy demand have resulted in a reduction in oil dependence from 80% to just 48% between 1973 – 2007, during which Japan's GDP has increased by 2.3 times. Since Japan lacks sufficient domestic hydrocarbon resources, Japanese companies have also actively pursued the path of reducing their consumption through adoption of energy efficient technologies and promotion of renewable energy technologies. Lately, the Japanese Government is also making major strides towards implementing smart grid with emphasis on developing low carbon societies and deployment of the natural grid to reduce greenhouse gas emissions. Pilot projects comprising installations of smart meters, integration of electric vehicle car sharing system, critical peak pricing and demand response programme are being implemented in its various cities.

The issues of energy security and global environment are high priority challenges for both India and Japan requiring continuous and effective action. In particular, to overcome recent challenges of global-scale changes in the energy demand structure and soaring energy prices, both sides need to deepen their technology cooperation in energy conservation and renewable energy sectors. Both sides also need to expand cooperation in the sectors such as SMEs and transport where consumption of energy has been growing rapidly in line with India's economic growth. The India-Japan Forum 2013 aims to do just that by providing a platform to the stakeholders of the two nations to participate and exchange collaborative opportunities.

Focus areas

- ❖ Technology cooperation in energy efficiency and renewable energy
- ❖ Business opportunities for building smarter communities

Objective and Target Audience

The primary objective of the Forum is to expand technology cooperation between the two countries by providing an opportunity to the Indian and Japanese stakeholders to discuss various technological and policy related issues in the field of energy efficiency and renewable energy. The speakers at the Forum will include representatives from MEA, METI, NEDO, BEE, MNRE, TERI and many other experts and industry leaders. The target audience for the forum includes government agencies, technology / product suppliers, industry, prospective users, experts, consultants and academic institutions.

Date 10-11 September, 2013

Venue Hotel Le Meridien, New Delhi

Fee There is no participation fee for attending the Forum.



About NEDO

NEDO is Japan's largest public R&D management organization. Following the two oil crises of the 1970s, the need for energy diversification increased. Against this backdrop, NEDO was established as a semi-governmental organization in 1980 to promote the development and introduction of new energy technologies. Since its establishment, NEDO has undertaken technology development, demonstration projects and system improvement with the aim of improving Japan's global competitiveness and addressing social issues in an integrated manner.

NEDO actively undertakes the development of new energy and energy conservation technologies, verification of technical results, and introduction/dissemination of new technologies (e.g., support for introduction). Through these efforts, NEDO promotes greater utilization of new energy and improved energy conservation. NEDO also contributes to a stable energy supply and the resolution of global environmental problems by promoting the demonstration of new energy, energy conservation and environmental technologies abroad based on knowledge obtained from domestic projects.

NEDO pursues research and development of industrial technology, which is the foundation for Japan's industrial competitiveness, with the goal of commercialization of advanced new technology. Drawing on the combined efforts of industry, academia and government as well as its considerable management know-how, NEDO carries out projects to explore future technology seeds as well as mid- to long-term national projects that form the basis of industrial competitiveness. It also supports research related to practical application.



About TERI

The Energy and Resources Institute (TERI), a dynamic and flexible organization with a global vision and local focus was established in 1974. A unique developing-country institution based in New Delhi, TERI is deeply committed to every aspect of sustainable development. From providing environment-friendly solutions to rural energy problems to helping shape the development of the Indian oil and gas sector; from tackling global climate change issues across many continents to enhancing forest conservation efforts among local communities; from advancing solutions to growing urban transport and air pollution problems to promoting energy efficiency in the Indian industries, the emphasis has always been on finding innovative solutions to make the world a better place to live in. However, while TERI's vision is global, its roots are firmly entrenched in Indian soil. All activities in TERI move from formulating local and national – level strategies to suggesting global solutions to critical energy and environment related issues. It is with this purpose that TERI has established regional centers in India at Bangalore (Karnataka), Panaji (Goa), Guwahati (Assam), Mumbai (Maharashtra) and Mukteshwar (Uttarakhand), and a presence in Japan, Malaysia, Belgium, UAE and Africa. It has also set up affiliate institutes – TERI- North America in Washington, DC, USA and TERI-Europe in London, UK.

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