2016

InSPIRE - Varanasi

InSPIRE

(Inclusion in Smart city Planning of India of Renewable energy and Energy efficiency)

विद्याविनियोगाद्विकासः

IIM AHMEDABAD

iba Fertilizing Energy

INDIAN INSTITUTE OF TECHNOLOGY (B.H.U.) VARANASI

A CONCEPT NOTE

Indian Biogas Association along with IIM-Ahmedabad and IIT-BHU are planning to organize a conclave on 29 January, 2016. The role of Energy efficiency along with Renewable energy in Smart city are to be explored.

1. Background

Upcoming five years will see upto hundred Smart Cities across 21 States in India. INR Ninthy Eight thousand crore is to be the sanctioned amount by the Cabinet for development of such smart cities and rejuvenation of five hundred others. For this motto, INR Forty Eight thousand crore and for Atal Mission for Rejuvenation and Urban Transformation (AMRUT), a total funding of INR Fifty Thousand crore has been approved by the Cabinet.

The plan notes for such Smart Cities in India are as followings:

- 100 smart cities: The government has allocated an outlay of Rs 98,000 crore (US$ 15,329.26 million) to execute 100 smart cities, and the Atal Mission for Rejuvenation and Urban Transformation (AMRUT), which is an urban rejuvenation programme for 500 towns and cities in next 5 years.
- Smart heritage cities: The government has introduced a project to develop 12 heritage cities across the country. Called HRIDAY Scheme or National Heritage Development and Augmentation Yojana, the cities included are Ajmer, Amaravati, Amritsar, Badami, Dwaraka, Gaya, Kanchipuram, Mathura, Puri, Varanasi, Velankanni and Warangal.
- Smart ports: The government plans to connect 12 smart cities with the maritime hubs at an estimated cost of Rs 50,000 crore (US$ 7821.05 million).
- Smart armed force stations (SAFS): There is a proposal to develop 6 smart armed force stations (SAFS). Of the 6 stations; 3 will be army stations, 2 of airforce and 1 of the navy.
- Smart aerotropolis: The West Bengal government plans to develop first airport city called the Bengal Aerotropolis Pvt Ltd (BAPL) at Andal in Burdwan district.
- Smart railways: Ministry of Railways has introduced world-class station programme to upgrade and revamp the existing railway stations. New Delhi Station will be the first station to be redeveloped within this programme spread over 86 hectares land with 18 platforms to handle in excess of 500,000 passengers per day. The Surat railway station is also to follow with 2.27 lakh square metre for redevelopment of new station. Along with this a total of 1,052 stations have been identified for upgradation of passenger amenities. It is proposed to include 200 more stations under this scheme.

- Smart villages: Saansad Adarsh Gram Yojana (Parliamentarian's Model Village Scheme aims to ensure holistic development of identified gram panchayats. Under this programme, Andhra Pradesh is the first state to launch the 'Smart Village' plan aimed at making AP, a top state in the country by 2029.
- DMIC: The Delhi Mumbai Industrial Corridor (DMIC) running through six states Delhi, Western Uttar Pradesh, Southern Haryana, Eastern Rajasthan, Eastern Gujarat, and Western Maharashtra to build a dedicated freight corridors along the Delhi-Mumbai. The cities that have been identified are Dholera in Gujarat, Shendra-Bidkin in Maharashtra, Greater Noida in UP, Ujjain (MP) and Gurgaon in Haryana.
- SEZ: Guizhou International Investment Corp (GIIC) has signed a MoU with Kakinada SEZ (KSEZ), a subsidiary of GMR Infrastructure to develop industrial park over 2,000-acre land for setting up Chinese high-end equipment manufacturing plants. GIIC will invest $500 million in developing the infrastructure and various facilities of the industrial park. These Chinese companies will invest $2-3 billion in setting up their operations over the next 5 years and generating more than 5,000 jobs for both skilled and unskilled workers.

On other hand, India's Renewable Energy capacity is set to increase to approximately 55 GW by the end of 2017. A sum of INR One Thousand Crore is already approved for ultra large solar projects and solar parks**. India is permitting FDI upto 100 in Renewable Energy sector under the automatic route.** An underestimated potential of Bio energy (including biomass and bagasse co-generation) estimated potential of 22.5 GW is still to be harnessed properly.

Similarly, Energy Efficiency can be the key to define the future energy consumption pattern as the energy demand is going to increase upto 2.5 fold by 2030. Difficult to predict outcomes of programmes; feedback mechanisms and decision processes to enable constant monitoring and adjustments are essential for Energy Efficiency evaluation. Higher entry cost is a barrier; with adequate and credible information, people and organizations can make investments with paybacks of 2-5 years; higher payback periods require incentivization too.

Combining the above three would result in a self-balanced eco-system, which not only can take care of technical and financial feasibility but also the social balance can be integrated keeping the ecology intact!

2. Objectives

The main theme of InSPIRE conclave is:

Inclusion in Smart city Planning of India of Renewable energy and Energy efficiency -

From Potential to Implementation.

The overall objectives of the InSPIRE are:

- To achieve more efficient, coherent and coordinated actions towards increasing renewable energy access and ensuring energy efficiency for development of Smart City;
- To accelerate progress through dialogue and partnerships toward the scaling up of investments with the above mentioned objective;
- To inform decision-makers and influence sector policies for scaling up energy efficiency and participation of renewable energy for proper growth of Smart city.
- To establish a professional core group of key players for coordination and collaboration with the government. This unit can support other investor in accessing all the necessary permission.

The specific objectives will be:

- To discuss the success stories of such renewable energy and energy efficiency based smart cities model;
- To improve strategic and operational tools used for supporting the implementation of Smart city in terms of Energy Efficiency and Renewable Energy for technology transfer and even O&M;
- To share updated knowledge and disseminate it among energy policy-makers, Urban development department, development partners, private sector and other stakeholders;
- To increase the building of strategic partnerships among key players, and particularly with the governmental and private sector for the development, implementation and closing knowledge and financial gaps in Smart City projects from Energy Efficiency and Renewable Energy perspective;
- To build capacity in innovative knowledge and attain early understanding towards a consensus on emerging key issues in the sector.

3. Expected outcomes

Expected outcomes of the conclave are

- A road map on important decisions related to Smart city's inclusion of Energy Efficiency and Renewable Energy.
- Private sector participation in such development and capacity of public and private sectors to invest in Energy Efficiency and Renewable Energy for Smart City.
- More consensus, coherence and strategic partnerships among key players (international, public and private) for the development and investments in Smart city project; a communication strategy will be designed.
- Strategic and operational tools for supporting the implementation of such concept;
- Best practices and updated knowledge on energy efficiency and clean energy participation for Smart city development.

4. Participation and Beneficiaries

The main beneficiaries are elite participants and their related organizations: Ministry of New and Renewable Energy, Bureau of Energy Efficiency (BEE) and Ministry of Urban Development; investors, private sector and development partners; stakeholders and partners; Investment promotion agencies; Regional Economic Communities, Regional Power Pools, Indian specialized institutions, and Development Banks; Energy NGO, selected academia and research institutions. The proceedings of the conclave (on electronic support) will directly benefit the participants, and also other decision-makers in various governmental and non-governmental organizations, including investors, private sector and civil societies.

5. Venue and date

The proposed date for the conclave is on January 29, 2016 in Varanasi, India.

6. Proposed Agenda

- Renewable Energy for sustainable development
- Role of Energy efficiency in ensuring future city development
- Stepping up renewable integration for balancing Smart city ecosystem
- Role of private investments and PPPs development of Smart city with Renewable Energy and Energy Efficiency integration
- Policy framework for inclusiveness of Energy Efficiency and RE in smart city

7. Contact details

Professor P. K. Mishra from IIT-BHU, Email id: pkmishra.che@itbhu.ac.in
Gaurav Kedia from Indian Biogas Association, Email id: g.kedia@biogas-india.com
Professor Amit Garg from IIM-Ahmedabad, Email id: amitgarg@iimahd.ernet.in

Tapashya Singh is the general coordinator and can be contacted at +91-7897-304707 or at varanasi.inspire@gmail.com