



# RE-INVEST

1st RENEWABLE ENERGY GLOBAL  
INVESTMENT PROMOTION MEET & EXPO  
15 - 17 FEBRUARY 2015 • NEW DELHI, INDIA

## DECENTRALISED ENERGY SOLUTIONS

### OPENING REMARKS: ROHIT KANSAL, CO-CHAIR

Dr Cilliers, distinguished speakers on dais, and participants,

I am pleased to welcome you all to this session on Decentralised Energy Solutions being hosted by UNDP as part of the RE-INVEST. The idea of organising the RE-INVEST was conceived by the Ministry of New and Renewable Energy (MNRE), as a follow-through to the 'Make in India' initiative of the Prime Minister of India.

As you know, the primary mandate of this Ministry is to contribute increasingly to meeting the country's growing energy demand through renewables. To achieve this, the scale of investments in the RE sector has to grow to levels that are several times higher than present.

As a consequence of the Government's emphasis on renewable energy, considerable progress is underway as far as renewable energy for large grid connected applications is concerned. Therefore, it is most relevant and appropriate that this session focuses on some of the less prominent applications of renewable energy: decentralised power supply and direct heat applications. These applications may have lesser prominence but certainly not lesser relevance.

The UNDP has been focusing on decentralised applications of renewables and supporting several interventions on this overall theme in India over two decades.

MNRE also has been providing a thrust to decentralised power production and supply. Some of the main focus areas are:

- Biomass-based heat and power projects and industrial waste-to-energy projects for meeting captive needs.
- Biomass gasifiers for rural and industrial energy applications.
- Watermills/micro hydro projects—for meeting electricity requirement of remote villages.
- Small wind energy & hybrid systems—for mechanical and electrical applications, mainly where grid electricity is not available.
- Solar PV roof-top systems for abatement of diesel for power generation in urban areas.

We are also promoting stand-alone renewable energy devices such as:

- Family-size biogas plants
- Solar street lighting systems
- Solar lanterns and solar home lighting systems
- Solar water heating systems
- Solar cookers
- Standalone solar/ biomass based power generators
- Wind pumps

Many of these systems have been found to be useful in urban and semi-urban areas to conserve the use of electricity and other fossil fuels. Solar water heating systems have helped in demand side management of electricity in various cities and towns during peak hours. Standalone roof top SPV systems are getting popular for day time diesel abatement in areas where incidence of power cuts is very high.

Despite several well-intentioned efforts by national and state governments and international development partners to expand energy access, current estimates indicate that about 2.4 billion people worldwide [800 million of them Indians] still depend on traditional biomass burnt in inefficient stoves for satisfying their cooking energy needs.

The installed capacity of renewables in India has grown at an annual rate of 25% over the past decade. It has touched 32,000 MW as of March 2014 and currently accounts for about 13% of the total electricity generation capacity [232,000 MW], contributing to about 6% of the electricity produced in the country.

Interestingly enough, today the amount of power produced through renewables is more than twice of that produced by all nuclear power plants in the country put together. As of today, more than a million households in the country derive their basic electricity needs solely from solar energy!

Nevertheless, these achievements are only indicative of a good beginning: there is substantial ground to be covered before a certain amount of progress can be considered to have been made towards energy self-sufficiency and sustainability.

The Government of India has set new targets for it to achieve 100,000 MW of electricity through renewable sources of energy and to provide 24 x 7 electric supplies to unserved villages through conventional and renewable sources of energy.

In this session, we also intend to brainstorm on the following issues:

- How solar thermal technology can help meeting thermal energy demands for water heating, high temperature requirements such as steam, hot air, and cooking?
- How biomass/ biogas devices can meet thermal energy requirements such as large scale cooking, energy required in processing industries, enterprises, etc?
- How different renewable energy technologies such as solar, micro-hydro, biogas, biomass gasifiers, and small wind generators can provide electricity?

This session is going to focus on the potential, best practices and the investment required. We are indeed very fortunate to have some of the most knowledgeable and experienced speakers on these topics who are familiar with the best practices demonstrated in India as well as other countries.

Their insights will be very useful in identifying areas that are ready for sizeable investments and have potential for multiplication. Again, I welcome all participants to this important session and hope the deliberations herein are useful in identifying as well as attracting investments for decentralised renewable energy solutions in the country.