

ROUNDTABLE: RENEWABLE ENERGY DEPLOYMENT IN CITIES



Date: 29 October 2015, Thursday

Time: 0900-1200hrs

Title: Renewable Energy Deployment in Cities

Organiser: International Renewable Energy Agency

With 75 percent of global energy consumption and only two percent of global land use, cities are both an opportunity and challenge for accelerating the deployment of renewables. Limited space means that renewables should be introduced in conjunction with energy efficiency measures and that options for renewables in the cities' hinterland should be explored. Furthermore, the existing stock requires renewables to be integrated into existing building and transport infrastructure. On the other hand, the concentration of energy uses in a small space means that even small shares of renewables can make a big impact in absolute terms. Furthermore, the declining costs of renewable energy technologies – especially solar technologies - make them a cost-effective solution to integrate electricity and heat provision into the built environment.

The role of cities for the deployment of renewables will become only stronger in the foreseeable future. The urban population is projected to increase from 52% in 2010 to 60% in 2030, adding an additional 1.4 billion people to cities. This means that every year an estimated 71 million people will be added to the urban population. For megacities (more than 10 million inhabitants), this means that energy infrastructures need to be created that is cost-effective and reliable. This will be particularly challenging for Asia which already hosts 23 out of the 36 megacities in the world.

Even greater opportunities exist for small but rapidly growing cities. Around 50% lives in small cities (less than < 0.5 million per city). On average, these cities are growing at a rate of around 5% per

year, which means that these cities will double in size before 2030. For Asia, this suggests an additional 144 million dwellings to be built in small cities before the year 2030.

The International Renewable Energy Agency (IRENA) identified seven priority areas for action to ensure that renewables are integrated into cities. These include: 1) the integration of renewables in low-energy buildings, 2) support for renewables for heating and cooling, 3) the creating of local power grids for renewables integration, 4) support for electric mobility, 5) assessment of local usage of cooking fuels and waste, 6) the integration of renewables into the cities' sustainability agenda, and 7) the creation of dedicated financing mechanisms for renewable energy projects in cities.

The **IRENA Roundtable** will provide a platform for sharing best practices in each of these seven priority areas, and assess and discuss their relevance for Asia.

The roundtable will discuss the following questions:

- a) Which of the seven priority areas are particularly relevant for both megacities and smaller cities in Asia?
- b) How can national renewable energy policies support the deployment of renewables in cities?
- e) What can international organizations do to support the deployment of renewables in cities at a local level?