

## Govt eyes 10,000-MW power generation from biomass

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To meet ever-increasing energy demand, the Ministry of New and Renewable Energy (MNRE) is looking at the possibility of generating 10,000 MW of power in the next 10 years from surplus biomass.

"The rising demand for energy on one hand and depletion of fossil fuels and increasing import of coal on the other, has made it necessary for us to look at dedicated plantation-based biomass power and energy as an alternative source," MNRE Secretary Deepak Gupta told a national workshop on "Dedicated Plantation based Biomass Power and Energy" here today.

MNRE was exploring the possibility of generating 10,000 MW of power in the next 10 years from surplus biomass, both agro and forest residues, he said.

In addition, small megawatt biomass power plants could be set up for feeding power at the tail end of the grid (11 KV line). These plants would ensure power to many villages.

MNRE proposed to bring together stakeholders to formulate a strategy to provide sustainable and reliable energy solution at an affordable cost at the grassroots level in an integrated and environment-friendly manner, he said.

At present, biomass-based power plants are mainly based on surplus agro residues such as rice husk, cotton and arhar stock and other agro and forest residue and availability of biomass has been a major issue to operate the plants to full capacity.

The problem could be over come if these plants were linked with dedicated energy plantations on degraded or waste lands for supplementing the biomass fee stock demand. This would also help in reducing the need for transportation of biomass over long distances.

MNRE initiated a new scheme in 2009-10 to promote grid interactive biomass-based projects (up to 2 Mw) at the tail end of the grid, as they help in reducing T&D losses and stabilising grid voltages, besides offering many other socio-economic benefits in rural areas, including rural employment, he said.

MNRE Director DK Khare said the recent draft "National Mission Document on National Mission for Greening India" by the Ministry of Environment and Forest aimed at increasing forest-tree cover on 5 million hectares of forest/non-forest lands and improving the quality of forest cover on another 5 million hectares of degraded forest land.

He said recent efforts made by private developers in raising plantation of fast growing tree species such as bambusa balcooa (bema bamboo), melia dubia, paulownia have shown encouraging results by demonstrating a high yield of 40-60 tonnes per hectare per year in a rotation of 3-4 years.

In view of this, plantation of bema bamboo – which yields about 40-50 tonne per hectare – on 150-200 hectares of degraded/marginal forest/non-forest degraded land could provide sustainable supply feedstock for one megawatt plant, he said.