

# Energy policy needs a relook

*An edited version of this article appeared in Live Mint on 25<sup>th</sup> Aug 2010.*

As the nation celebrates 63 years of independence, a third of our population lives without electricity and an additional one third face power cuts. Our growing economy will demand additional power. The government's integrated energy policy (IEP) estimates that electricity demand will grow 4-5 times by 2030. Power projects are causing social stress across India due to their conflicting demands on scarce water and land resources, displacement of people and local pollution. Limited coal resources in India and the increasing threat of climate change will limit the total coal capacity we can aspire for. This necessitates a critical relook at our energy policy. Rather than pursuing energy security through elusive options such as nuclear power, it is important to concentrate on quick implementation of energy efficiency, people-centric decentralized use of renewable energy and reducing the cost of such grid-connected power through competition while addressing governance issues.

As the first step, we need to ensure adoption of energy efficiency to the fullest extent. The adoption of the National Mission on Enhanced Energy Efficiency, with an aim of reducing demand by 20GW over the next four years, is a good start. The efficiency resource, over the next 10 to 15 years is much greater than the combined supply potential of large hydro and nuclear power. In spite of the full utilization of efficiency resources, we will need to augment supply through renewable energy.

This is the fastest growing energy sector in the world today, with investments in its capacity having overtaken fossil-fuel capacity addition in the last two years. India has a grid-connected renewable energy capacity of 17GW, which is one-tenth of total power generation capacity. The bulk of this comes through wind power. We have also added half a GW of renewable energy plants in the off-grid mode to electrify nearly 7,000 villages.

Going ahead, India needs a multi-pronged strategy for renewable energy promotion. First, we should utilize relatively low cost (non-solar) renewable energy resources, which are estimated by MNRE to be around 85GW. The largest of this is wind power, whose present cost is 50% higher than that of coal-based power without considering the externalities of coal. While the National Action Plan on Climate Change has set a target of 15% energy from renewable energy by 2020, such a target should be reviewed considering economically usable resources, and an acceptable impact on consumer tariff, while the cost burden of this expensive electricity should not be passed on to poor and agricultural consumers.

Second, renewable energy cost reduction through innovation needs to be supported. The recently introduced National Clean Energy Fund will generate Rs3,000 crore per year through a small cess on coal and is a step in the right direction. To begin with, this fund should be leveraged wisely to support innovation in clean energy technologies, demonstration projects and the renewable energy manufacturing industry. Third, while the solar resource is theoretically abundant, it is expensive. The regulated price for solar power is nearly six times that of coal and four times that of wind power. Competition and technology development will no doubt lower solar costs, but they are unlikely to compete with coal power over the next decade. But solar PV technology, even at the present cost, is economical for applications in remote areas and should be used for ensuring a reliable supply for social infrastructure such as schools, primary health centres and drinking water distribution systems. This is in line with the view of energy security as espoused in the IEP, namely, “supply lifeline energy to all our citizens irrespective of their ability to pay... at competitive prices, at all times.”

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