

Of Energy and Security

The Government of India is forcing the development of hydro and nuclear power to establish the nation's energy security. Right now energy requirement is mostly met by coal and oil. The country's total requirement of energy in 2031 will be equivalent to 189 crore tons of oil according to the Integrated Energy Policy Report of the Planning Commission. Of this 102 crore ton will be met from coal and 49 crore ton from oil if the present trend of consumption continues. These two would fulfil 80 percent of India's energy requirements. Remaining 20 percent will be met from natural gas, hydro, nuclear, solar, wind and biomass. The Government is trying to develop hydro and nuclear to break the dependence on coal and oil. Logic sounds fine because the global reserves of oil are declining and price of this is likely to move upward beyond tolerable limits. True, India has adequate reserves of coal for the present but the Planning Commission has declared it to be the worst source of energy. It brings with it problems of emission of green house gasses like Carbon-dioxide, leads to the generation of huge amounts of solid waste in the form of fly ash that is difficult to dispose, leads to discharge of large amounts of hot water into streams which harms the fish and other aquatic life, entails loss of forests, flora and fauna and causes forced displacement of people in mining of coal. So Government is forcing development of hydro and nuclear energy under the belief that these are relatively clean, because it does not have the problems of greenhouse gas emissions, generation of solid waste and decline in quality of river waters. But hydropower reservoirs emit large amount of methane gas which is more poisonous than carbon-dioxide. Rivers bring large amount of organic matter such as leaves, stick and animal carcasses and deposit them in hydro reservoirs. These ferment in the bottom of reservoirs and turn into methane gas. California-based International Rivers Network has studied methane emissions from three hydro reservoirs in South America and concluded that methane emissions are equivalent to 2100 grams carbon per Kwh of power produced. In comparison, thermal plants emit only 800 grams carbon. Secondly, sediment is arrested in hydro dams and India's coastal areas are deprived of renourishment leading to their erosion. Further, holding of water in reservoirs leads to generation of algae that soak the available oxygen and the water becomes lifeless. The temperature of waters is also changed. Truly, therefore all the problems of thermal power are present in hydro.

Nuclear power can in no way establish energy security because India will be dependent on other countries for the imports of uranium. Also, as for health hazards associated with nuclear energy, the authorities hide the reality. India does not need more nuclear reactors which will result in unmanageable radiation problems. Energy security can probably be established by development of wind and solar energy. In fact innovations like cycle generators, speed breaker generators must be encouraged.

The development of hydro and nuclear energy provides double benefits to the bureaucracy-more large contracts to be approved and more power is available for pilferage. Thus a false hype is created that the country needs forced development

of these sources for meeting energy requirements. The alternative of Demand Side Management [i.e. power savings] is ignored because there are fewer contracts to be given and also less energy to pilfer. □□□

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