

NUCLEAR POWER FOR ENERGY SECURITY - INDIAN SCENARIO

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India has been witnessing an impressive growth in GDP in the face of several challenges including the fact that India has a population of over 1.2 billion. In order to provide and maintain a comfortable standard of living to our large population, as well as to sustain the national economic growth, it is essential to have a matching growth in the availability of energy. One such indicator is per capita electricity consumption, and for India, it is about 700 kWh which is far below that of the OECD countries (~8000 kWh)¹. Furthermore, India's population is expected to rise to about 1.5 billion by 2050. A per capita use of about 5000 kWh energy in the form of electricity every year would be needed for achieving a state of reasonably high development. This will require an installed electricity generation capacity exceeding 1300 GWe, which is slightly more than six times the existing installed electricity generation capacity of 210 GWe in India². Despite the fact that at present India is the fifth largest electricity generating country, India has to increase total electricity generation to almost 10 times the present generation level (about 875 billion kWh)². It is against this backdrop, that we cannot afford to ignore any source of energy production including the nuclear option, since no single source alone, or not even a combination of only a couple of sources, can ever meet the entire energy needs of our country in a reliable and sustainable manner.
