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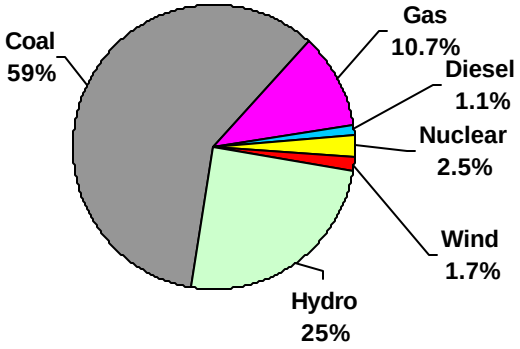
Topic-2

In India, as per the web site of CEA, the average Plant load factor (X) stands at 70.8 %, while the nominal thermal capacity (Y) is 76,632 MW. Accordingly the annual generation (Z) comes out to 475278 MU.

The further breakup stands as under:



For a 500 Mw wind park the plant load factor can be taken as 30% (As BSES has achieved in 7.59 MW Wind Farm Project at Jogimatti, Taluka Hiriyur, District Chitradurga in Karnataka state.)

Accordingly the annual generation comes out to 500*30/100*24*365/1000 = 1314 MU.

For a 500 MW thermal set, assuming the nominal PLF at 80% (as prevailing) and Auxillary consumption at 8% (with motor driven BFPs) the annual generation (net on bus) will be:

500*80/100*.92*24*365/1000 = 3224 MU

Hence in percentage terms the wind park will replace 40.7% of the electricity generated by the coal fired plant.