Phasing out of old units- strategies

- Today coal based capacity is more than 1,86,000 MW
- This capacity worked at less than 61% PLF in June 2016
- The IPPs worked at less than 56% PLF in June 2016

- The typical unit sizes installed in the country at and above 60 MW are 60/62.5/67.5/75/100/110/120/150/200/210/250/300/350/500/600/660/700/800 MW
- These units were installed at different points of time
- The population for unit sizes upto 210 MW unit size is :

  less than 200 MW—170 units

  lmz 200/210 mw units---66 units

  KWU 210/210 MW units—more than 100 units

Turbine cycle Heat Rates for different unit sizes:

200/210 MW 130 ata--- ----------2050 Kcal/kwhr

200/210 MW 150 ata----------1990

500 MW 170 ata 535/535 deg C-1976/1945

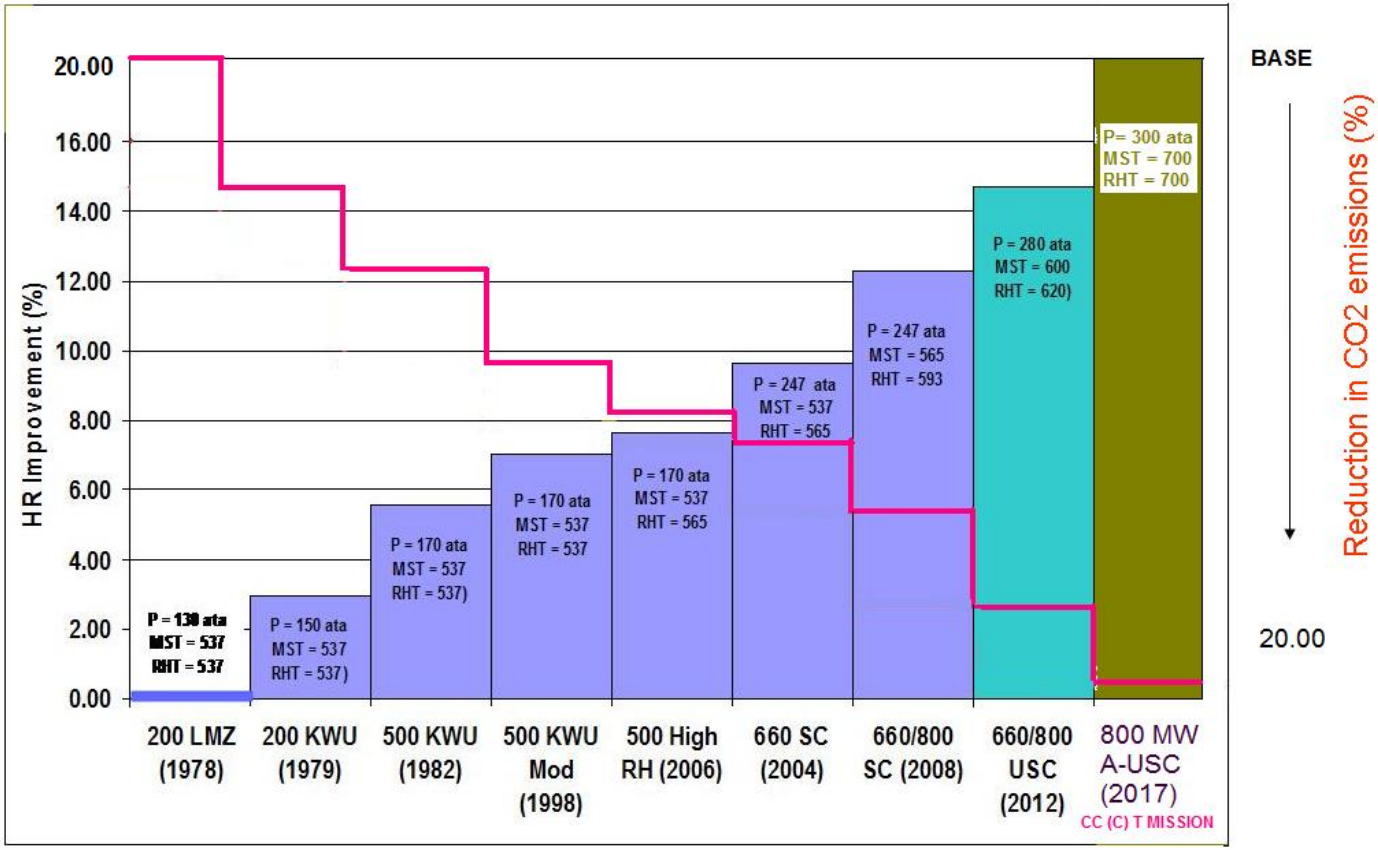
500 MW 170ata 535/565 deg c---1935

SC 240ata 535/565 deg c ----------1900

SC 240ata 565/593 deg C---------- 1810-1850

USC 270 ata 600/600 deg C-------- around 1780

Deployment of Efficiency Improvement Technologies in India



Units with sizes less than 400 MW commissioned recently:

2014 -15---------- 2815 MW

2015-16----------4720 MW

Options:

1) New units to be ordered from now onwards should be supercritical units with sizes more than 660 MW
2) Units with sizes less than 110 MW to be decommissioned compulsorily
3) Unit sizes upto and incl. 200/210 MW operating at pressures less than 150 ata to be retired within 5 years and replaced with SC units

4) The decommissioned plants to be given coal linkage and tax incentives and fuel cost incentive for setting up new units in their place