

## Economic and environmental dispatch at highly potential renewable area with renewable storage

### Abstract :

Economic/Environmental Dispatching (EED) is an important multiobjective optimization problem to decide the amount of generation to be allocated to each thermal generating unit including renewable sources so that the total cost of generation and emission of polluting gases is minimized without violating system constraints. Here, the problem is EED of hybrid power system including solar, wind and storages of renewable energies. High potential renewable area ensures the availability of renewable sources in some extent. A consistent optimum EED can be obtained by extracting maximum renewable energy during their availability and using them for both available and unavailable periods with the aid of their storages. This paper illustrates the optimization of EED with renewable storage using MATLAB simulations. The simulations have been done using IEEE-30 test bus (with 6 generators) data.