

## Pinch Analysis of Triple Pressure Reheat Supercritical Combined Cycle Power Plant

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**Abstract :** In this study, supercritical steam is introduced to Combined Cycle Power Plant (CCPP) in an attempt to further optimize energy recovery. Subcritical steam is commonly used in the CCPP, operating at maximum pressures around 150-160 bar. Supercritical steam is an alternative to increase heat recovery during vaporization period of water. The idea of improvement using supercritical steam is further examined with the use of exergy, pinch analysis and Aspen Plus simulation.

**Keywords :** exergy, pinch, combined cycle power plant, supercritical steam

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