



NARAYANA ENGINEERING COLLEGE::GUDUR

(AUTONOMOUS)

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Dhurjati Nagar, Gudur - 524101, www.necg.ac.in



DEPARTMENT OF MECHANICAL ENGINEERING

REPORT ON INDUSTRIAL VISIT

ACADEMIC YEAR : 2019-2020

COMPANY NAME : AP GENCO , NELLORE



DESCRIPTION:

Andhra Pradesh Power Generation Corporation Limited is power generating organization in Andhra Pradesh. It undertakes operation and maintenance of the power plants and also setting up new power projects alongside upgrading the project's capacity. The government reforms in power sector led to the formation of APGENCO on 28 December 1998 and commenced operations from 1 February 1999. The imbalance of the revenues against the cost of production, no significant reduction in technical losses and energy thefts,

high cost purchases from IPP's, other SEB's gradually worsened the financial position of APSEB.

Though the performance of APGenCo thermal power stations in terms of reliability, availability and maintainability (RAM analysis) is one of the best in India, its hydro power stations performance is not satisfactory as they break down frequently or not in working condition when required to perform at full capacity during the short period (four months) monsoon season. The thermal efficiency (heat rate) of thermal power stations is not satisfactory to attain close to the rated / design values which is deciding parameter in the competitive electricity market (buyers market) whereas the fuel (coal) is costly in sellers market. Operating the thermal power stations in the range of 75 to 100% capacity in 'frequency follow mode' with good part load efficiency is the needful strategy in surplus electricity grid except during peak demand hours. Also Hydro power stations should perform well meeting all the functions such as power factor correction, peaking power generation, pumping water in pump mode and secondary power generation during monsoon season utilising total available water. This can be achieved by maintaining hydro power stations at availability more than 95%.

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