भारत हेवी इलेक्ट्रिकल्स लिमिटेड
Bharat Heavy Electricals Limited

कॉर्पोरेट संचार
Corporate Communication

PRESS RELEASE

BHEL achieves Significant Breakthrough; Succesfully Commissions India's first indigenously-developed Phase Shifting Transformer

New Delhi, December 3: Bharat Heavy Electricals Limited (BHEL) has successfully indigenously developed, manufactured and commissioned India's first Phase Shifting Transformer (PST) Kothagudem Thermal Power Station (KTPS) Stage-VI in Telangana.

Reposing faith in BHEL's capability to successfully introduce new technology products, Telangana State Power Generation Corporation Limited (TSPGCL, erstwhile APGENCO) had placed an order on BHEL for the country's first Phase Shifting Transformer (PST).

The 400 kV/220 kV, 315 MVA rating Phase Shifting Transformer shall be utilized to control and improve the power flow between 400 kV & 220 kV network in either direction by providing phase shift as per the system requirement. The PST has been designed to provide phase shift of ± 15 degree.

A Flexible AC Transmission System (FACTS) device, the PST is a combination of a shunt and a series transformer. Significantly, with the commissioning of the above PST, the existing overloaded 220 kV lines shall be relieved and power can be pushed through the 400 kV transmission line, thus improving the transmission efficiency of both 400 kV and 220 kV lines, and also avoiding grid collapse in case of system instability. In fact, the remarkable benefits derived by transmission networks through deployment of PST, is an outstanding Smart Grid solution in true sense. This is a major development and has opened a new line of business for BHEL.

In the field of Power Quality Improvement, BHEL has fully established its capability to undertake new products / systems using technologies developed in-house like Controlled Shunt Reactors, Grid Compensation Schemes like FSC, STATCOM for utility applications.

BHEL's Transmission Business Group and Corp. R&D have carried out system studies and substation design while the PST has been manufactured at BHEL's Bhopal Plant. BHEL has an overall capacity of manufacturing Power Transformers of 45,000 MVA per annum out of which its Bhopal Plant has an annual capacity of 30,000 MVA. The plant is equipped with state-of-art facilities to manufacture Transformers up to 1200 kV range including HVDC Converter Transformers up to 800 kV. The plant has also got its own Ultra High Voltage (UHV) Laboratory, which is one of its kind in India.

BHEL is the largest manufacturer of transformers in India, having supplied more than 4,000 transformers, aggregating to over 3,00,000 MVA in cumulative capacity for transmission and distribution networks, which are the mainstay of the Indian Grid. These have been supplied to all major utilities in the country including SEBs, NTPC, PowerGrid etc. On the export front, the company has supplied transformers to more than 20 countries around the world including Libya, Oman, Malaysia, Saudi Arabia and Zambia.

(ROHIT I. SINGH)
DGM (CC)