

DESIGN & ENGINEERING OF THERMAL POWER PROJECTS

CEA has been involved in engineering activities for thermal power stations since early sixties when it was known as TDO (Thermal Designs Organization). Over a period of time, the TDO developed excellence in engineering capabilities with the aim to develop self-reliance in technological development and assimilation.

The foundation of thermal engineering capabilities was laid in CEA in sixties with the involvement of Soviet specialists in various fields of Thermal Engineering. CEA also carried out the design & engineering of Neyveli Lignite Corporation plants and erection, testing & commissioning of thermal plants at Neyveli TPS and Obra TPS of UPSEB. The Badarpur TPS was departmentally erected and commissioned and operated by CEA before it was handed over to NTPC. CEA has been involved in detailed engineering of several prestigious coal based projects incl. Singrauli, Vijayawada, Anpara , etc. as well as combined cycle projects incl. Kathalguri, IP Delhi etc. The activities included preparation of design memos, technical specifications, bid evaluation & recommendations, system design/ sizing calculations, approval of vendors' drawings/documents, site visits for supervision of erection, testing/inspection, witnessing of P.G. tests etc.

The list of engineering jobs in hand and those already executed are given below:

1.1 Thermal projects for which engineering activities are currently in progress

S.No.	Station	Capacity(MW)	Scope
1.	Hisar TPS	2x600	Review consultancy
2.	Raghunathpur TPS, DVC	2x600	Review consultancy
3.	Karaikal CAPP	32.5	R.O. plant for cooling water

1.2 Thermal projects in operation for which complete Design & Engineering services were rendered by CEA

S.No.	Station	Capacity
1.	Anpara TPS	3x210 + 2x500
2.	Vijaywada TPS St-I	2x210
3.	Unchahar TPS St-I	2x210
4.	Badarpur TPS	3x100 + 2x210
5.	IP Station Unit V	1x60
6.	Neyveli TPS	6x50 + 1x100
7.	Faridabad TPS	3x60
8.	Bongaigaon TPS	4x60
9.	Kathalguri CCGT	3x60(GT) + 3x30(ST)
10.	Basin Bridge GT	4x30
11.	DVB CCGT	3x60(GT)+ 3x30(ST)
12.	Agartala GT	4x21
13.	DVC Maithon GT	3x30
14.	DG sets, Chatham A&N	4x5

1.3 Thermal projects in operation for which review consultancy services were rendered by CEA

S.No.	Station	Capacity(MW)	Scope
1.	Yamunanagar TPS	2x300	Review consultancy

1.4 Thermal projects in operation for which part Design & Engineering services were rendered by CEA

S.No.	Station	Capacity(MW)	Scope
1.	Singrauli TPS	5x200	Prime consultant & Main plant Engg.
2.	Obra TPS	5x50 + 5x210	CHP modification
3.	Tenughat TPS	2x210	Review consultancy
4.	Bhatinda TPS	4x100	R&M of CHP & ESP
5.	Faridabad TPS	3x60	ESP
6.	Panipat TPS	2x110	ESP
7.	Patratu TPS	4x50 + 1x100	Civil and piping system
8.	Koradi TPS	1x210	HP piping
9.	Parli TPS	1x210	CW system civil works
10.	Agartala GT	4x21	DM plant

1.5 CONSULTANCY TO REGULATORY COMMISSIONS

A. Services rendered

S.No.	Agency	Scope
1.	Central Electricity Regulatory Commission	Operation Norms for Thermal Power Stations
2.	Uttar Pradesh Regulatory Commission	Scrutiny of RFP Documents for 2x500 MW Anpara 'C' Project
