

Annexure-II

T&Ps TO BE DEPLOYED BY CONTRACTOR

Below given Nos are tentative for planning purposes by the bidder. At the time of start of work, BHEL and contractor shall jointly make MOM about deployment period of each of following T&P.

Sl. No.	Description	
A	Major T&Ps for Civil Works	
A.1	Concrete Batching Plant (30 Cum/Hr.) with two Nos. of Silos of 100 MT capacity each.	2 No. minimum
A.2	Concrete Transit Mixer	6 No. or as per requirement
A.3	Concrete Mixer	As per Requirement
A.4	Concrete Pump of Suitable Capacity with Sufficient lift / Concrete Boom Placer of sufficient boom length	As per Requirement
A.5	Hydraulic Excavator /Poclain	2 nos. Or As per Requirement
A.6	JCB	01 No. Additional 01 No. as per Requirement
A.7	Dumper	5 Nos- as per requirement.
A.8	Tower Crane of suitable capacity & height & Radius	2 No. for each IDCT
A.9	Boom placer	1 No.
A.10	Suitable Passenger Hoist/Lift with cabin for carrying of minimum 8 Passenger along with all accessories	1 No. for each NDCT
A.12	Ladder	As per Requirement
A.13	D-Coiling Machine -/Plate rolling machine	1 no minimum/As per requirement
B	Major T&Ps for Structural Work	
B.1	FARANA crane (12/14 MT Capacity)	As per Requirement
C	Other T&Ps for Civil & Structural Works	
C.1	Electrical Winch (of required capacity)	As per Requirement
C.2	Vibrators (electrical/diesel) with needle	As per Requirement
C.3	Welding Machine with all accessories	As per Requirement
C.4	Self-priming Dewatering pump of various capacity (Diesel/Electric) From 7.5 HP to 10 HP	Minimum 1 nos -As per Requirement
C.5	Curing / dewatering pump 1.5 / 2 HP	As per Requirement
C.6	1. Ply Shuttering board with adequate supporting structure (Old steel shuttering plates will not be allowed). 2. Steel shuttering (fare face)	Lot (As per requirement)
C.7	Trailer (20MT Capacity)	As per Requirement
C.8	Tractor with Trolley	As per Requirement

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C.9	Pipe Scaffolding, Clamps / Swivel Couplers (One/Two Way), Props, Jacks, Screw Heads, MS Pipes, Wooden Battens, Planks, Bullies, H Frames, Tie Rods with Nuts, Adjustable Achro Span (Considering Individual Areas)	Minimum 5000 set of scaffolding pipe with clamp for both IDCT.
C.10	Reinforcement bending machine	As per Requirement
C.11	Reinforcement cutting machine	As per Requirement
C.12	Ply cutting machine	As per Requirement
C.13	Optical/laser plumb	As per Requirement
C.14	Total Station	1 Nos.
C.15	Auto level & staff	As per Requirement
C.16	Water Tanker	As per Requirement
C.17	All Equipment for area Lightning like halogen bulbs and Portable light Towers etc.	As per Requirement
C.18	Computer with printing/photocopy & CD writing facility	As per Requirement
C.19	DG Set of Suitable Capacity	As per Requirement
D	Installation of Chiller Plant along with Batching Plant. And quality lab equipment's	In case ambient temperature is greater than 32 Degree Celsius, Placement temperature should be controlled with necessary temperature correction of concrete

(Payment towards mobilization and installation for sr no A.1, A.8 & A.9 and labour colony construction shall be made/allotted during detailed civil BBU approval with maximum cumulative 5% of Civil contract value)

A. Tentative Manpower Requirement

1. Project manager – with 10 Years' experience in Industrial Foundation, Building & Power Plant Civil & Architectural Works/Power plants civil work.
2. Experienced Civil Engineers – 1 heads
3. Experienced Structural/Mechanical Engineer - 1 Head
4. Experienced Foreman / Supervisors –2 heads
5. Planning & Billing Engineer – 02 heads
6. Stores, Gate Pass – 01 heads
7. Accounts & Administration- 01 heads
8. Quality Control Engineer/Chemist – 1 head
9. Safety Engineer – 1 head
10. Operator, Licensed Electrician, Mechanic - As per requirement
11. Experienced Carpenters & Helpers – lot for similar nature of work
12. Experienced Bar Benders & Helpers – lot for similar nature of work
13. Security Guards (Round The Clock) – As per requirement.

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- B-1 Deputation of above man-power shall be jointly decided at site in line with construction Schedule.**
- 2** Engineer/supervisor for other functions like store & purchase, material management, planning, finance, administration etc. are to be provided as per site requirement and not considered in above list.
 - 3** In the event of non-deputation of engineer/ supervisor by the bidder as per above agreed schedule, BHEL shall reserve the right to deduct Rs. 50,000.00 per man-month for engineer, Rs. 35,000.00 per man-month for the supervisor from RA bills. Further induction of manpower regarding site supervisor & site engineer will be decided at site as per requirement without any financial implication to BHEL.
 - 4** BHEL reserves the right to reject or approve the list of personnel proposed by the contractor. The persons whose bio-data have been approved by BHEL will have to be posted at site and deviation in this regard will not be permitted unless specific & reasonable justification is made.
 - 5** The contractor should also submit the fitness/calibration certificate for T&Ps regularly and renew it as per applicable IS standards and statutory requirements. The tools & tackles shall not be removed from site without written permission of BHEL.