Pre Bid Technical Clarification No.4 dated 07.07.2025 to NIB No.477 dated 26.02.2025 for EPC execution of EM Works of 240 MW Heo HEP

Sl. No.	Volume	Page No.	Clause No.	Tender Provision	Bidders Queries	NEEPCO Replies
1	**Vol-II, Section-II, M7 HVAC system**	**1**	**7.1.1 Air handling units**	7.1.1 Air Handling Units: i) Three (3), sets of Air handling units (AHU's), each of them be of 50 % of the required capacity, one unit serves as standby, for Power house floors, Transformer area, Service bay, drainage gallery etc. If required, additional fresh air blowers of the required capacity / rating against each AHU shall be provided.	The location of the AHUs for the ventilation system is essential for the sizing of the HVAC system components, including the centrifugal fan head, supply air duct sizing, and the necessary support arrangements. To accommodate the AHUs and the supply air plenum, bidder proposes a clear open space measuring 40m x 12m. We suggest following possible locations: 1.On the roof of the control room block. 2.At the end of the powerhouse building towards the emergency exit side. 3.At the end of the powerhouse building towards the DG set area side. In view of the above, customer is requested to review and confirm the allocated space and preferred location for the AHUs of the ventilation system.	Location of AHU shall be finalized during detail engineering in discussion with civil design.
	Pre Bid Technical Clarification No.2 dated 02.05.2025 to NIB No.477 dated 26.02 2025 for EPC execution of EM Works of Heo HEP	**6 of 16 (PDF)**	**Sl. No. 44**	**Bidder Queries:** Bidder envisage as following: 1.0 Location of the AHU rooms is not avaliable in the drawing. Bidder has envisaged that AHU of ventilation system of power house bldgs, shall be placed in open at roof of the control tower bay and AHU fans shall take suction air suction directly from the ambient in line with general practice followed in the surface type Plant. Hence, no seperate fresh air blower fan shall be applicable. 2.0 Since there will be no wall on the transformer withdrawal side of tranformer hall and same shall be naturally ventilated, hence, bidder shall not envisage ventilation system for transformer hall located below GIS room. Customer is requested to review and confirm. **NEEPCO Replies:** 1.0 Location of AHU shall be finalized during detail engineering in discussion with civil design. 2.0 Agreed.		

2	**Vol-II, Section-ll, M7 HVAC system**	**PTS::M-7::Page 1**	**7.1.1 Air handling units**	ii) Required no. of Split type Air Conditioners of the required capacity for Power house Control room, relay/panel rooms, PLCC room areas, staff room, Conference Room, Office Rooms etc. The no. of the Split type air conditioning units provided in each closed space shall be (N+1), where N is the number of air conditioning units of equal rating/capacity required for the said closed space.	Please note that for ducted or non-ducted split-type air conditioning systems, relative humidity control within the air-conditioned areas is not feasible. In view of the above, bidder requests customer to review and confirm the suitability of **using of air-cooled condensing units with 3 x 50% redundancy**. Further, bidder wants to inform that in case of using of air-cooled condensing units or package AC units, following room & open space are also applicable. 1. **AHU**: A closed room adjacent to or above the control room, with dimensions 15m x 10m x 5m (clear height). 2. **Outdoor Unit Are**a: An open space of 15m x 12m to accommodate the outdoor units. Customer is requested to review and confirm the preferred type of air conditioning system and the availability of the above-mentioned room & spaces.	The temperature and relative humidity control shall be required as specified in the PTS. The requirement / installation of Condensing units shall be examined during detail engineering.
	Vol-II, Section-ll, M7 HVAC system	**PTS::M-7::Page 2**	**7.2.1 Layout and General Arrangement**	All air-conditioned areas will be maintained at 24 ± 1 deg C and RH 55 ± 5% with split/ window type air-cooled air conditioners		
	Pre Bid Technical Clrification No.2 dated 02.05.2025 to NIB No.477 dated 26.02 2025 for EPC execution of EM Works of Heo HEP	**6 of 16 (PDF)**	**Sl. No. 45**	**Bidder Queries:**A. Since relative humidity control is not feasible / possible in case AC machine as window/ Split Air Conditioners, hence relative humidity (RH 55+ 5%) shall not be arrived/ maintained for areas being cattered by window / split air conditioners type.Further in view of the above, bidder proposes type of the air conditioning system as per the following for Control room, panel rooms:1. 25-60TR, D-X type Air cooled Condensing Unit along with AHU shall be provided with 3 x 50% redundancy.2. 11-25 TR, Air cooled Ductable Split AC/ Air cooled Package AC shall be provided with 3 x 50% redundancy.3. Upto-10TR, with Hi-wall Split AC/ Cassette AC shall be provided with N+1 redundancy configuration. Where N is number of working unit.B.Rest of the air conditioned space specified in Cl. No.-ii), type of the AC system shall be envisaged as window/ Split Air Conditioners only.Customer is requested to review type of AC system and accept type of AC system mentioned above.. **NEEPCO Replies:**The temperature and relative humidity control shall be required as specified in the PTS.The requirement / installation of Condensing units shall be examined during detail engineering.		

3	**Volume- II, Section-III**	---	---	Tender Drawings	Customer is requested to provide General Layout Plan & Longitudinal Section for the plant.	Bidder is requested to refer Pre-Bid Technical Clarifications No.3 dated 27-05-2025.
4	Particular Technical Specification-Electrical Volume-II, Section-II; E-6	3	6.4	Applicable standards Dry Type Transformer - IEEE: C57.12.01-1988	Standard for Dry Type Transformers will be IS 11171/IS2026.	Latest Edition of all relevant Indian and International standards including IEEE C57.12.01-2020 shall be applicable.
5		5	6.5.3	Off-circuit taps at step of 1.25% (8 steps for each direction) shall be provided on the high voltage winding.	Off-circuit taps at steps of 2.5 % (2 in each direction) i.e. +/-5.0% will be provided. The offered transformer is cast resin dry type and higher number of taps (more than ±5% in step of 2.5%) is not possible due to cast coils.	Shall be dealt during detail engineering.
6		18	6.10.12	Excitation current: At 120 % of rated voltage : 3 % of rated full load Current	Excitation current: At 110 % of rated voltage : 3 % of rated full load Current. Excitation current is higher in dry type transformer due to type of construction & insulation media (air).	Bid stipulation shall prevail. However, it may be reviewed during detail engineering.
7		22	6.13.3	The Bidder shall clearly state the testing facilities available with them for conducting short circuit, measurement of acoustic level, and Partial discharge and other special tests as per the standards.	Facility for short circuit test is not available with us. If short circuit test is required then it will be carried out at third party lab and charges shall be payable extra.	Short Circuit Test to withstand without damage the Thermal and Dynamic effects of external Short Circuit shall not be required.
8	Pre bid technical clarification No. 3 dtd 27.05.2025	1	Sr. No. 85	For 1500kVA- Maximum Losses (Inclusive of all tolerance) - No load losses at rated voltage : 2.8 kW(max.)	2.8 kW (max.) No Load Losses for 1500 kVA, 33 kV class dry type transformer is abnormally low. Hence, can not be offered. No Load Loss offered is 3.8 kW (max.)	Agreed