

Pre Bid Technical Clarification No. 10 against NIB No.377 dated 26.11.2020

Sl. No.	Bid Stipulation	NEEPCO'S Amendment vide corrigendum No.5 dated 20.01.2020	Bidder's Query	NEEPCO's Reply
1.	<p>Section-IV, Vol-2, Part-II-03 Generator and Aux – PTS Last sentence of Clause No.1.6.4.1. Stator Frame: (Page354/639) The contractor shall supply wound stator in two or more segments. Building of core and winding at site shall not be permitted.</p>	<p>Last sentence of Clause No.1.6.4.1. shall now be read as: The core of stator must be seamless i.e. joining of stator frame at site by welding and core stacking must be done at site. Following paragraph is also added to the amended clause: "However, bidders should note that during core consolidation and core flux test (ring test) all the necessary testing transformer, copper flexible cable and other instrumentation to be arranged by them. It may also be noted that NEEPCO shall install 2 Nos. 33KV/0.415KV, 1.6MVA (SAT) which can be utilized as power source for core consolidation/ring test."</p>	<p>In line with the short "completion time" of the tender, Contractor should be allowed to manufacture the Wound Stator as per their own manufacturing procedure/practices. Hence, we request NEEPCO to kindly keep both option (manufacture at Site or at Works) available in the tender. Please confirm.</p>	<p>The amended bid specification shall prevail.</p> <p>The core of stator must be seamless i.e. joining of stator frame at site by welding and core stacking must be done at site.</p>
2.	<p>Section-IV, Vol-2, Part-II-03; Generator and Aux – PTS; Clause No.25: (Page346/639); The minimum GD2 value to be considered for the Generators shall be 350 Tm2, with inertia constant (H) value of 2.88 kW. Sec/kVA, speed 600 rpm and rated output 55550 KVA.</p>	<p>Clause No.25 now shall be read as: The minimum GD2 value to be considered for the Generators shall be 350 Tm2, with inertia constant (H) value of 2.94 kW. Sec/kVA, speed 600 rpm and rated output 58824 KVA.</p>	<p>Please refer our below mentioned comment under Sl. No.4 for rated output. And as per "Sl. No. 111 of your Prebid Technical Clarification No.-1", Minimum GD2 shall be considered as 350 T-m2 and accordingly Inertia Constant shall be considered.</p>	<p>The minimum GD2 to be considered for Generator shall be 350 Tm2. Accordingly, inertia constant (H) shall be considered. Detailed calculations for inertia constant (H) considered by bidder must be submitted.</p>

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3.	General:	<p>In order to meet the regulatory requirement of technical standard for Connectivity to the Grid Amendment Regulations 2013, CEA Standard, the rated power factor for the Generators to be supplied shall be considered as 0.85 lagging.</p> <p>As such the rated KVA and KVA at MCR shall be read as 58824KVA and 64706KVA respectively in place of 55550KVA and 61111KVA, wherever specified in the Bid Document.</p>	<p>We wish to draw your attention that, as per regulatory requirement of technical standard for Connectivity to the Grid Amendment Regulations 2013, CEA Standard, the rated Power Factor for the Generator to be supplied shall be in the range of 0.85 lagging to 0.95 leading. We have considered the PF 0.9 lagging (as per existing machine) for new Generator Design.</p> <p>Hence, we are maintaining same specification i.e. the rated 55550KVA and 61111KVA at MCR.</p>	<p>Bidder may please note that the Generator to be supplied shall be capable of delivering rated output at 0.85 lagging power factor, to meet the regulatory requirement.</p> <p>As such, amended specification shall prevail.</p>
4.	<p>Section-IV, Vol-2, Part-II-00 General Technical Requirement - PTS, clause 9.7.2 page 274</p> <p>Section-IV, Vol-2, Part-II-03 Generator and Aux - PTS, clause 1.6.4.1 page 354</p>	<p>The core of stator must be seamless i.e. joining of stator frame at site by welding and core stacking must be done at site.</p>	<p>In reference of Corrigendum 5 dated 20.01.2021 (Sl.No. 2), we understand that stator building work (e.g welding of stator frame, stacking of stator core & winding) at site shall be done with the help of NEEPCO's Erection Contractor. Only specialized man-power & special T&P shall be under scope of this tender. The same is in line with Section-IV, Vol-2, Part-II-00 General Technical Requirement - PTS, clause 9.7.2 page 274. Please confirm.</p>	<p>Supervision, provision of specialized man-power & special T&P shall be under bidder's scope.</p>

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<p>5.</p>	<p>Section-IV, Vol-2, Part-II-03 Generator and Aux - PTS, clause 25 page 346</p>	<p>The minimum GD2 value to be considered for the Generator shall be 350 Tm2, with inertia constant (H) value of 2.94 kW, Sec/kVA, speed 600 rpm and rated output 58824 KVA.</p> <p>In order to meet the regulatory requirement of technical standard for Connectivity to the Grid Amendment Regulations 2013, CEA standard, the rated power factor for the Generator to be supplied shall be considered as 0.85 lagging. As such the rated KVA and KVA at MCR shall be read as 58824 KVA and 64706 KVA respectively in place of 55550 KVA and 61111KVA, wherever specified in the tender.</p>	<p>In reference to Corrigendum 5 dated 20.01.2021 (SI No. 3 & 4), as has been stated to consider rated output & power factor as 58824 KVA and 0.85 lagging respectively against the bid document value of rated output 55550 KVA and power factor 0.9 lagging. Also, inertia constant (H) has to be considered as 2.94 kW-sec/KVA in place of 3.11 kW-sec/KVA for GD2 = 350 tm2.</p> <p>We request NEEPCO to review the above statement and issue correction as we understand that Central Electricity Authority (Technical Standards for Connectivity to the Grid) Amendment Regulations, 2013 states that Generator shall be capable of operating at rated output (in this case 55550 kVA only) for power factor varying between 0.85 lagging (over-excited) to 0.95 leading (under-excited) only. Generator designed and supplied must be capable of operating in this range having thermal capability, active power being delivered from Turbine. Please accept and confirm the same.</p>	<p>Bidder may please note that the Generator to be supplied shall be capable of delivering rated output (50 MW) at 0.85 lagging power factor, to meet the regulatory requirement.</p> <p>As such, amended specification in regard to P.F. and rated generator capability shall prevail.</p> <p>With above considerations and minimum GD2 value of 350 Tm2 of Generator, Inertia Constant (H) value may be considered by bidder, claculation against which must be submitted.</p>
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<p>6.</p>	<p>Section-IV, Vol-2, Part-II-03 Generator and Aux – PTS Last sentence of Clause No.1.6.4.1. Stator Frame: (Page354/639) The contractor shall supply wound stator in two or more segments. Building of core and winding at site shall not be permitted.</p>	<p>Last sentence of Clause No.1.6.4.1. shall now be read as: The core of stator must be seamless i.e. joining of stator frame at site by welding and core stacking must be done at site. Following paragraph is also added to the amended clause: "However, bidders should note that during core consolidation and core flux test(ring test) all the necessary testing transformer, copper flexible cable and other instrumentation to be arranged by them. It may also be noted that NEEPCO shall install 2 Nos. 33KV/0.415KV, 1.6MVA (SAT) which can be utilized as power source for core consolidation/ring test."</p>	<p>At Point no.2, it is stated that “ The core of stator must be seamless i.e. joining of stator frame at site by welding and core stacking must be done at site.” As per Bidder practice we will supply stator frame in no. of segments which will be joined at site by no. of stator joint bolts & welded to form complete ring. The core building will be done at site to form seamless stator core. Kindly confirm acceptance for the same.</p>	<p>The proposal of forming rigid Stator frame by bolting and welding and seamless core building at site is acceptable as per amended technical requirements mentioned at Sl. 2 of Corrigendum-5.</p>
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