



एनएचपीसी लिमिटेड

NHPC LIMITED

(भारत सरकार का उद्यम)
(A Govt. of India Enterprise)

तीस्ता V पावर स्टेशन

Teesta V Power Station

सिंगतम, पूर्वी सिक्किम - 737134

Singtam, East Sikkim- 737134



IS/ISO 9001 IS/ISO 14001 IS 18001

आई एम एस प्रमाणित पावर स्टेशन

IMS certified Power Station

दूरभाष/Ph: 03592-247349

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Ref No. NH/TSV/Cont/EC-150/NIT-908/2024-25/44

Dated: 20-05-2024

Sub: Consolidated Reply of employer (NHPC Ltd.) on Techno-Commercial queries.

Please refer to Tender invited vide NIT No.: NH/TSV/Cont/EC-150/NIT-908/2023-24/969
Dated: 27/03/2024 (Tender ID: 2024_NHPC_802327_1) for the work of "Upgradation of SCADA System at Teesta-V Power Station: Ensuring Efficiency and Security", the final consolidated Reply of employer (NHPC Ltd.) on Techno-Commercial queries (from the prospective bidders) has been attached herewith as Annexure-A (Reply of Commercial queries) & Annexure-B (Reply of Technical queries).

All other terms & conditions of Tender Documents and subsequent Technical Corrigendum
Dated: 08-05-2024 shall remain unchanged.

For & On behalf of NHPC Limited.

Group Sr. Manager (Civil)

Contract Division

Teesta - V Power Station

Corporate Office: NHPC Limited, NHPC Office Complex, Sector-33, Faridabad-121003 (Haryana)

निगम मुख्यालय एन.एच.पी.सी. लिमिटेड : , एनएचपीसी ऑफिस कॉम्प्लेक्स, सेक्टर-33, फरीदाबाद-121003 (हरियाणा)

Corporate Identification Number (CIN): L40101HR1975GOI032564

SL N.	Tender Reference	Tender Description	Pre-Bid query (Commercial) received	Reply of NHPC LTD.
1	Section-1 /NIT/CI-3/Qualification of the Bidder/Page6	CI-3.2A/b): The Bidder should have successful experience in design, manufacturing, erection, testing & commissioning of control & monitoring system (SCADA) for minimum two units of 60MW & above in a hydro project in previous 10 (Ten) years ending last day of the month of previous to the one in which applications are invited.	We request to consider SCADA experience of our Parent Company and of our other group companies as bidder experience for Pre-qualification.	Comply as per Q.R. of tender document . No change.
2	Section-1 /NIT/CI-3/Qualification of the Bidder/Page6 Section-IV/GCC/CI- 7.1, Subletting of the contract/Page 68:	CI-3.2B/iv: A Certificate on letter pad shall be submitted by the bidder to the effect that the contractor shall not assign, sub-let or sub-contract all or any part of its rights, liabilities, or obligations to be performed without NHPC's written permission. Section-IV/GCC/CI-7.1, Subletting of the contract/Page 68: The Contractor shall not, without the prior consent in writing of the Engineer-in-Charge or Purchaser, which shall not be unreasonably withheld, assign or sublet or transfer his Contract, or substantial part thereof other than for raw materials, for minor details, or for any part of the work, of which the suppliers and or erectors are named in the Contract, provided that any such consent shall not relieve the Contractor from any obligation, duty or responsibility under the Contract.	The contract will be executed with support (through Purchase/Service orders) of our Parent Company and other group of companies authorized local Vendor manufacturing facility for assembly, testing, inspection etc. of SCADA. We request that this support (through Purchase/Service orders) b/w our Parent's Company's Group companies should not be considered as subletting or subcontracting (deviation from Tender Conditions). We also request to approve and confirm, If we can fill the same in Section- II/Form-12, Declaration on Sublet, Page-60 while submitting the bid documents and the same will be considered as prior information for permission/approval and not be considered as deviation.	As per GCC clause No. 7.1, page number 68, subletting is allowed with permission of EIC or Purchaser. The same shall be dealt during execution of work (if awarded).
3	3.2A Qualification of the Bidder NIET, Page no. 5	The Bidder should have successful experience in design, manufacturing, erection, testing & commissioning of control & monitoring system (SCADA) for minimum two units of 60MW & above in a hydro project in previous 10 (Ten) years ending last day of the month of previous to the one in which applications are invited.	We kindly request you to amend the PQ clause as below. The Bidder should have successful experience in design, manufacturing, erection, testing & commissioning of control & monitoring system (SCADA) for minimum two units of 50MW & above in a hydro project in previous 10 (Ten) years ending last day of the month of previous to the one in which applications are invited. Kindly confirm.	Comply as per Q.R. of tender document . No change.
4	3.2A Qualification of the Bidder Section 2, ITP, Page 14	The Bidder should have successful experience in design, manufacturing, erection, testing & commissioning of control & monitoring system (SCADA) for minimum two units of 60MW & above in a hydro project in previous 10 (Ten) years ending last day of the month of previous to the one in which applications are invited		



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5	Section-1/NIT/CI- 1/v/Bid Security (EMD), Page 3	Rs. 30,68,000/- (Rupees Thirty Lakh Sixty- Eight Thousand Only) in the form of Crossed Demand Draft/ BG/Insurance Surety Bond in favour of "NHPC Limited" payable at Singtam, East Sikkim. The firm is exempted from furnishing the EMD if registered as per ITB clause 13.7(ii)	We request to please waive off the requirement of Bid Security/EMD for our firm being the original OEM/OES of the equipment.	Firms having valid Start-up Certificate are eligible for EMD relaxation. No other firms (whether OEM/OES) are not eligible for EMD Exemption
6	Section-1/ NIT/CI- 1/vii/ Completion Period, Page 3	12 months and 10 days	Our best estimated completion period may be more than the tender completion period of 12 months and 10 days, which may be treated as a deviation from tender conditions. However, as per tender conditions (Form-5/Form of declaration and Form-6) we have to declare "This is to certify that our offer is exactly in line with your tender enquiry. This is to expressly certify that our offer contains no deviation either Technical or Commercial in either direct or indirect form." We request to please allow the bidder to submit the bid with bidder estimated completion period in (Section-IV/Schedule-E/Construction Schedule) without considering the same as deviation.	Shall remain as 12 months and 10 days
7	Section-1 /NIT/CI- 1/Critical Dates of tender/vi, vii, Page 4	vi: Online Bid Submission Closing Date & Time: 24/04/2024 at 17:30 Hrs vii: Offline submission closing (Date & Time): 27/04/2024 at 16:30 Hrs	As the project of this complexity required significant effort of design and engineering for accurate estimation. We request to please provide the extension of 30 days for bid submission.	Corrigendum has been published for extension of bidding time.
8	Section-II/ITB/CI- 10.3, Page 17	... All applicable taxes / duties including GST as applicable and assessed 28 days prior to bid submission date on the Employer shall also be included in the prices / rates, <u>which shall be deducted from the Contractor and deposited to the concerned authority by the Employer. Employer will not entertain any claim whatsoever on this account.</u>	1. The Custom duty and applicable GST are to be paid by the Contractor/ Supplier. The contractor supply bills will be submitted at the time of delivery of material at site. 2. As the Supplier is registered under GST Act, the responsibility of depositing the GST lies with the Supplier only. The GST will be deposited by the Supplier to the respective authorities and reimbursed by the Purchaser as per the commercial invoices/bills submitted by the Supplier.	Necessary corrigendum has been published.
9	Section-III/Form-11, Price bid undertaking, Page 59	Schedule of price bid in the form of BOQ-EC-150.xls The below mentioned Financial Proposal/ Commercial bid format is provided as BoQ-EC-150.xls along with this tender document at https://eprocure.gov.in/eprocure/app . Bidders are advised to download this BOQ-EC-150.xls	The name of commercial bid format, MS excel file name is BOQ_843375.xls. (Downloaded from tender documents from https://eprocure.gov.in/eprocure/appl) Request to please confirm.	We have uploaded the BOQ named 'BOQ-EC-150.XLS. However, as per E-procure system, they have Saved the uploaded BOQ as BOQ_843375.xls. Hence it is requested to upload the downloaded BOQ after duly filled quoted price and name of the firm
10	Page No. 68	Clause 8.1 PATENT RIGHTS of GCC + Clause 38 LIABILITY FOR ACCIDENTS AND DAMAGES of GCC	We request to include the given below in the contract "It is clarified that all intellectual property rights under this Contract is limited and restricted to the right to use by the Purchaser for the limited purpose of this Contract only. all and any pre-existing intellectual property rights of Contractor are not transferred under this Contract and Contractor shall be exclusive owner and title holder for Contractor pre-existing intellectual property rights and similarly for any third party owned pre-existing intellectual property rights will be exclusively owned by such third party/ies."	No change. Comply as per tender documents.

SL N.	Tender Reference	Tender Description	Pre-Bid query (Commercial) received	Reply of NHPC LTD.
11	Page No. 69	Clause 13 POWER TO VARY OR OMIT WORK of GCC	We request to include the given below in the contract "Scope of Work shall be as per mutually agreed BOQ between the Parties and any additional scope will entitle Contractor additional costs from Purchaser"	No change. Comply as per tender documents.
12	CI 13.3 POWER TO VARY OR OMIT WORK Section 4, GCC, Page 70, Para 2	Even if there is disagreement regarding the rates to be paid, the Contractor shall carry out the work inclusive of the variations and the matter in difference. Provided that in case no final settlement is arrived for such rates, then such disagreement shall be settled as per clause 53.1 to 53.4 of General Conditions of Contract.	We request customer to kindly accept that variation will only be implemented when the variation in the scope and cost is mutually finalized and agreed. Kindly confirm.	Comply as per tender document . No change.
13	Page No. 71	Clause 15 COMPLIANCE WITH REGULATIONS of GCC	We request to include the given below in the contract "Purchaser shall indemnify Contractor from any third party claims if the reasons for the claim(s) are not solely attributable to Contractor under this Contract Purchaser shall fully indemnify Contractor for any statutory compliances that are applicable to the Purchaser under this Contract."	No change. Comply as per tender documents.
14	Page No. 73	Schedule C - SCHEDULE FOR ACHIEVEMENT OF WORK AND COMPENSATION FOR DELAY + Clause 13.0 LIQUIDATED DAMAGES (LD): Clause no. 18.1 of GCC is deleted and is replaced with the following: of SCC	We request to modify the Liquidated Damage clause as given below "Liquidated Damages: Any delay attributed to the Contractor beyond agreed date of delivery will attract Liquidated Damage (LD), as a genuine pre-estimated losses and not as penalty, at 0.5% per week or part thereof on the value of the undelivered portion only, subject to maximum 5% on the total value of the undelivered portion of supply or services, as applicable. However, in case of any delay for the reason not attributable to the Contractor or due to force majeure conditions, the provision of liquidated damages shall not apply. Liquidated Damages shall be the exclusive and the sole remedy available to the Purchaser under this Contract (or Order), tort or any other law applicable for the time being in force."	No change. Comply as per tender documents.

Handwritten signature

SL N.	Tender Reference	Tender Description	Pre-Bid query (Commercial) received	Reply of NHPC LTD.
15	Clause 22.1 EXTENSION OF TIME FOR COMPLETION Section 4, GCC, Page 74.	The Time(s) for Completion specified in the Contract may be extended if the work is delayed or the Contractor is impeded in the performance of any of its obligations under the Contract by reason of any of the following: (a) any Change in the scope of work (b) any occurrence of Force Majeure as provided in GCC Clause 52.1 to 52.5. (c) any suspension of work order given by the Engineer-in-charge under GCC Clause 23.1 to 23.4 (Suspension) hereof or reduction in the rate of progress pursuant to GCC Clause 23.2 or (d) any default or breach of the Contract by the Purchaser, specifically including failure to supply the items to be supplied by the Purchaser as per the Contract Agreement, or any activity, act or omission of any other contractors employed by the Purchaser or	Along with the Extension of time for the given conditions we request customer to kindly compensate the Supplier for any additional cost incurred due to the reasons given in a)b)c) d) under this clause. Kindly confirm.	Comply as per tender document . No change.
16	CI 13.3 POWER TO VARY OR OMIT WORK Section 4, GCC, Page 70, Para 2	Even if there is disagreement regarding the rates to be paid, the Contractor shall carry out the work inclusive of the variations and the matter in difference. Provided that in case no final settlement is arrived for such rates, then such disagreement shall be settled as per clause 53.1 to 53.4 of General Conditions of Contract.	We request customer to kindly accept that variation will only be implemented when the variation in the scope and cost is mutually finalized and agreed. Kindly confirm.	Comply as per tender document . No change.
17	Clause 22.1 EXTENSION OF TIME FOR COMPLETION Section 4, GCC, Page 74.	The Time(s) for Completion specified in the Contract may be extended if the work is delayed or the Contractor is impeded in the performance of any of its obligations under the Contract by reason of any of the following: (a) any Change in the scope of work (b) any occurrence of Force Majeure as provided in GCC Clause 52.1 to 52.5. (c) any suspension of work order given by the Engineer-in-charge under GCC Clause 23.1 to 23.4 (Suspension) hereof or reduction in the rate of progress pursuant to GCC Clause 23.2 or (d) any default or breach of the Contract by the Purchaser, specifically including failure to supply the items to be supplied by the Purchaser as per the Contract Agreement, or any activity, act or omission of any other contractors employed by the Purchaser or	Along with the Extension of time for the given conditions we request customer to kindly compensate the Supplier for any additional cost incurred due to the reasons given in a)b)c) d) under this clause. Kindly confirm.	Comply as per tender document . No change.



SL N.	Tender Reference	Tender Description	Pre-Bid query (Commercial) received	Reply of NHPC LTD.
18	Clause 23.1 Suspension Section 4, GCC, Page 74. para 2	If, by virtue of a suspension order given by the Engineer In-Charge, other than by reason of the Contractor's default or breach of the Contract, the Contractor's performance of any of its obligations is suspended for an aggregate period of more than ninety (90) days, then at any time thereafter and provided that at that time such performance is still suspended, the Contractor may give a notice to the Engineer In-Charge requiring that the Purchaser shall, within twenty-eight (28) days of receipt of the notice, order the resumption of such performance or request and subsequently order a change Amendment excluding the performance of the suspended obligations from the Contract.	For such suspension as given in clause 23.1 , any additional cost incurred by the Supplier shall be paid by the Customer. We request customer to kindly accept.	Comply as per tender document . No change.
19	Page No. 74	Clause 22 EXTENSION OF TIME FOR COMPLETION of GCC	We request to modify the Extension of Time for Completion clause as given below "In case Contractor's performance is delayed due to any act of omission on the part of Purchaser or any third party engaged by Purchaser or the end customer then the Contractor shall be given due extension of time for the completion of the scope, for a period not less than the duration of the resultant delay in the Contractor's performance of the Contract. Purchaser shall grant appropriate cost compensation along with time extension to the Contractor"	No change. Comply as per tender documents.
20	Page No. 74	Clause 23 SUSPENSION of GCC + Clause 44 PAYMENT UPON TERMINATION of GCC + Clause 46 REGULATIONS OF LOCAL AUTHORITIES of GCC	We request to modify the clause as given below "Contractor shall be entitled to claim payments from Purchaser for all supplies and/or services completed including work in progress till the date of any termination /expiry /cancel /suspension of this Contract. Contractor shall be entitled to claim applicable interest rate from Purchaser for any delayed payments to Contractor under this Contract. Purchaser will provide sixty (60) days prior written notice to Contractor for any termination/suspension/cancellation of this Contract. Contractor is entitled to terminate this Contract for any material breach by the Purchaser and Contractor shall claim full costs compensation from the Purchaser to the extent of performance completed and work in progress status under this Contract."	No change. Comply as per tender documents.
21	GENERAL CONDITIONS OF CONTRACT FOR SUPPLY AND ERECTION	PROGRESS REPORT 28.1 Fortnightly reports showing the actual progress made in the receipt of materials by the Contractor and in completion of various works shall be regularly submitted in duplicate by the Contractor to the Engineer-in-Charge and Engineer of the Contract.	This requirement is applicable for complete RMU or green field project, as the tender call for a particular package only therefore request to change requirement of Fortnightly reports to quarterly reports. Kindly Review and confirm	Shall be as per existing GCC clause and no modification is agreed at this stage.



SL N.	Tender Reference	Tender Description	Pre-Bid query (Commercial) received	Reply of NHPC LTD.
22	Section-IV /GCC/CI- 30.2, Responsibility of The Contractor, Page-76	The Purchaser shall have the right to require the Contractor to make any such change in the designs which may be necessary in the opinion of the Engineer- in-Charge to make the Plant and Works as the case may be, conform to the provisions & contents of the specification, without any extra cost to the Purchaser.....	We request you to agree on additional costs as per GCC clause 13.1 to 13.5 (Power to Vary or omit Work) if there are any changes by Purchaser. Accordingly, the CI 30.2 can be amended as follows: The Purchaser shall have the right to require the Contractor to make any such change in the designs which may be necessary in the opinion of the Engineer-in- Charge to make the Plant and Works as the case may be, conform to the provisions & contents of the specification, without any extra cost to the Purchaser subject to GCC clause 13.1 to 13.5.	Comply as per tender document . No change.
23	Section-IV /GCC/CI- 31.1, Training of Purchaser's Staff, Page-76	The Purchaser reserves the right to depute its own staff, comprising of Engineers/or Subordinates, in the Contractor's / sub-contractor's works and with Contractor's personnel for the purpose of gaining experience and Contractor shall extend all reasonable facilities for this purpose.....	Although GCC mention that the Contractor is not required to incur any expenditure on this account, when the Purchaser visits the Contractor, a related cost shall be incurred by the Contractor. Accordingly, we request you to specify details of training, number of trainees and periods. Based on that, the Contractor can include the related cost in their offer.	Comply as per tender document. The details of training, number of trainees and periods shall be dealt during execution of work (if awarded) as per instructions of EIC.
24	GENERAL CONDITIONS OF CONTRACT FOR SUPPLY AND ERECTION	TRAINING OF PURCHASER'S STAFF 31.1 The Purchaser reserves the right to depute its own staff, comprising of Engineers/or Subordinates, in the Contractor's / sub-contractor's works and with Contractor's personnel for the purpose of gaining experience and Contractor shall extend all reasonable facilities for this purpose. The Contractor shall not, however, be required to	We propose the Training of NHPC engineers at Site after the commissioning of all Units for duration of 2 days. Kindly Review and confirm	Necessary Details will be updated after award of contract as per the instruction of Engineer-in Charge/Site requirement.
25	Clause 33.1 DELIVERY OF PLANT Section 4, GCC, Page 77.	No plant shall be dispatched until dispatch instruction have been given to the Contractor by the Engineer- in-Charge or his duly authorized representative	if the Purchaser fails to give the dispatch clearance within 2 days, a deemed dispatch clearance will be given by the Supplier. Please accept.	Comply as per tender document . No change.
26	Section-IV /GCC/CI- 39.1, Insurance, Page-79	The Contractor shall insure the plant and equipment to be supplied by him and shall keep it insured against loss by theft, destruction or damage by fire, flood, under exposure to the weather, or riots, civil commotion, war or rebellion, or any other kind of loss or damage during transit for the full value of the plant from the time of dispatch and upto the time of its erection and successful Testing and Commissioning and upto its warranty period as per clause 51.1 to 51.4 of GCC.	Kindly be noted that we will take only transit insurance and material will be kept at your store. No additional insurance will be arranged by the contractor.	Comply as per tender document . No change.

SL N.	Tender Reference	Tender Description	Pre-Bid query (Commercial) received	Reply of NHPC LTD.
27	Clause 39.1 Insurance Section 4, GCC, Page 79.	The Contractor shall insure the plant and equipment to be supplied by him and shall keep it insured against loss by theft, destruction or damage by fire, flood, under exposure to the weather, or riots, civil commotion, war or rebellion, or any other kind of loss or damage during transit for the full value of the plant from the time of dispatch and up to the time of its erection and successful Testing and Commissioning and up to its warranty period as per clause 51.1 to 51.4 of GCC.	Supplier shall only take out insurance limited to its scope. We shall not be able to take out insurance for war and rebellion under our insurance policy. We request customer to kindly accept.	Comply as per tender document . No change.
28	Section-IV /GCC/CI- 39.2, Insurance, Page-79	The Contractor shall also ensure the <u>insurance of all the plants & Equipments</u> <u>or the materials to be arranged separately by the Purchaser (as per the detail list provided by the Purchaser)</u> and handed over to the Contractor for erection, including the estimated cost of erection etc. as per the terms of the Contract, until the works and the surplus materials are taken over by the Purchaser under Clause 50.1 to 50.4 of the General Conditions of Contract.	We understand that this clause is not applicable to this work. Request to please delete this clause.	Necessary corrigendum has been published.
29	Page No. 79	41.1.1 FOR SUPPLY OF PLANT/ EQUIPMENT ETC: Balance 20% of contract price of the material supplied shall be paid upon successful Erection, Testing & Commissioning and taking over of Control and Monitoring (SCADA) System	If there is any delay in commissioning of the plant for more than 120 days from date of supply which is not attributable to bidder, balance 20% of supply Pyament shall be released against submission of BG equivalent to the value. Please confirm.	No change. Comply as per tender documents.
30	Page No. 79	Clause 39 INSURANCE of GCC	We request to include the given below in the contract "Transit insurance will be in Purchaser scope. There are no insurances in Contractor scope. Incoterms 2020: Ex works- Contractor premises"	No change. Comply as per tender documents.
31	Page No. 80	Clause 42 DEDUCTIONS FROM CONTRACT PRICES of GCC	This clause is not applicable to the Bidder. Please confirm.	No change. Comply as per tender documents.

SL N.	Tender Reference	Tender Description	Pre-Bid query (Commercial) received	Reply of NHPC LTD.
32	Payment upon Termination Section 4, GCC, Page 81.	If the Contract is terminated at the Purchaser's convenience or because of a fundamental breach of Contract by the Purchaser, the Engineer-in-Charge shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the works less advance payments received up to the date of the certificate, less other recoveries due in terms of the Contract and less taxes due to be deducted at source as per applicable law.	We request the purchaser to release the PBG, pay to the supplier for the delivered equipment, works in progress, for the work performed at site and for any commitments already made with the vendor. Kindly confirm.	Comply as per tender document. No change.
33	Page No. 82	Clause 51 WARRANTY of GCC + Clause 4.0 of SCC + Clause 7.0 LATENT DEFECTS AND OMISSIONS of SCC	We request to modify the clause as given below "The DLP/Warranty period shall be twelve (12) months from the date of supply under this Contract (hereinafter referred to as "the Warranty Period"), which results during Warranty Period in the defective equipment, any defect for the reasons that is solely attributable Contractor with the exceptions on following: i. anomalies arising from supplies or parts provided by the Purchaser without conforming to technical specification mutually agreed with the Supplier. ii. normal abrasion, normal corrosion or normal wear and tear of the supplies. iii. use or storage of the Equipment that does not comply with technical specifications agreed by both Parties. iv. in the event of repair, modification, dismantling or reassembly connection of the Equipment not carried out by Supplier v. incorrect use of equipment by the Purchaser. Clause 7.0 of LATENT DEFECTS AND OMISSIONS of SCC shall not be applicable to Contractor."	No change. Comply as per tender documents.
34	Section-IV /GCC/CI- 52.1, Force Majeure, Page-83	For the purpose of this Contract, force majeure shall include, without limitation, wars, insurrections, civil disobediences, riots, earthquakes, storms, floods, acts of God, which is of such nature as to delay, curtail or prevent timely action by either party.	Please add the following details to the clause. For the purpose of this Contract, force majeure shall include, without limitation, the followings wars, insurrections, civil disobediences, riots, earthquakes, storms, floods, acts of God, which is of such nature as to delay, curtail or prevent timely action by either party. a) war, hostilities or warlike operations whether a state of war be declared or not, invasion, act of foreign enemy and civil war; b) rebellion, revolution, insurrection, mutiny, usurpation of civil or military government, conspiracy, riot, civil commotion, public disorder and terrorist acts; c) confiscation, nationalization, mobilization, commandeering or requisition by or under the order of any government or de jure or de facto authority or ruler or any other act or failure to act of any local state or national government authority; d) strike, sabotage, lockout, embargo, import restriction, port congestion, lack of usual means of public transportation and communication, industrial dispute, shipwreck, shortage or restriction of power supply, epidemics, pandemics including COVID-19, quarantine and plague; e) earthquake, landslide, volcanic activity, fire, flood or inundation, tidal wave, typhoon or cyclone, hurricane, storm, lighting, or other inclement weather condition, ionizing, radiation, contamination by radioactivity, nuclear and pressure waves, explosions or other natural or physical disaster; and f) shortage of labor, materials or utilities where caused by circumstances that themselves Force Majeure.	Comply as per tender document. No change.

SL N.	Tender Reference	Tender Description	Pre-Bid query (Commercial) received	Reply of NHPC LTD.
35	Clause 52.4 Force Majeure Section 4, GCC, Page 83.	52.4 Time for performance of the relative obligation suspended by the force majeure shall stand extended by the period for which such causes lasts.	If any additional costs incurred by the Supplier due to a Force majeure event , we request customer to compensate the Supplier. Kindly accept.	Comply as per tender document . No change.
36	Page No. 83	Clause 52 FORCE MAJEURE of GCC	We request to modify the Force Majeure clause as given below "Either Party shall not be liable to the other Party (except for responsibility to pay seller/supplier) for any force majeure event under this Contract. Any pandemic, epidemic, covid19 situation is treated as force majeure event." Replace "seventy -two (72) hours" with "fifteen (15) days"	No change. Comply as per tender documents.
37	Page No. 83	Clause 53 SETTLEMENT OF DISPUTES of GCC + Clause 18.0 SETTLEMENT OF DISPUTES of SCC	We request to include the given below in the contract "This Contract (or Order) shall be governed by and construed in accordance with the laws of India. Any dispute or difference arising out of or in connection with this Contract (or Order), which cannot be settled amicably within thirty (30) calendar days from the notification of such dispute by one Party to the other Party, shall be finally settled under the Arbitration and Conciliation Act, 1996 by sole arbitrator appointed in accordance with the said law. The place of arbitration shall be Bengaluru, India. The language of the arbitration shall be English. The final award shall be binding on the Parties."	No change. Comply as per tender documents.
38	Section-IV /GCC/SCHEDULE-D, Page-92	SL-8/18.2.(iii) GCC : Contractor's Overheads,*percent Profits, and supervision charges * 15% SI-10 : Public liability limit plus property liability limits not exceeding ... 10% of contract sum.	SI-8 : We are unable to find the GCC Cl-18.2 (iii). Request to please check and confirm. SI-10 : We request to please explain this clause and applicability to the contractor's work under this tender.	Necessary corrigendum has been published.
39	Page No. 92	Public Liability Limits plus Property Liability Limits not exceeding- 10% of the contract sum	This clause is not applicable to the Bidder. Please confirm.	Necessary corrigendum has been published. No further Change.

SL N.	Tender Reference	Tender Description	Pre-Bid query (Commercial) received	Reply of NHPC LTD.
40	Section-VI/SCC/CI-1.0/Prices , Page 114.	Prices (INR) quoted are Firm and Final on FOR Site basis including provision of labour, tools, plants, materials, and performance of , training of Employer's personnel, handing over to NHPC, <u>availability of expert at site for one year</u> and <u>guarantee for two years of control and monitoring system</u> as per the technical specifications mentioned.....	1. We cannot provide availability of experts for one year and we think it is not necessary 2. If there are any SCADA issues, we will provide remote assistance or depute TA (Technical Advisors) on chargeable basis depending upon the nature of problem. The warranty/defect liability period will be 18 months from the date of supply or 12 months from the date of commissioning whichever is earlier.	The SCC CI No. 1.0 shall remain unchanged.
41	SECTION-VI SPECIAL CONDITIONS OF CONTRACT (SCC)	3.0 SPARES: 3.1 Defect Liability of Spares: a. For any item of spares ordered or to be ordered by the Employer for 5 years operational requirement of the plant which are manufactured as a continuous operation together with the corresponding main equipment/ component, the defects liability period will be 24 months from the scheduled date of commercial operation of main equipment/ plant under the contract.	The defects liability period will be 24 months from the date of material receipt at site, We request you to kindly modify the same. Kindly Review and confirm	Shall be as per existing SCC clause and no modification is agreed.
42	Section-VI/SCC/CI-3.1.1(a)/For 5year operational spares(Specified) , Page 114.the defects liability period will be 24 months from the scheduled date of commercial operation of main equipment/ plant under the contract.....	The defect liability period will be 18 months from the date of supply or 12 months from the date of commissioning whichever is earlier.	The SCC CI No. 3.1.1 (a) shall remain unchanged.
43	Page No. 114	3.0 Spares:For the item of spares ordered or to be ordered by the Employer for 5 years operational requirement of the plant, which with the written approval of the Employer, are not manufactured as a continuous operation together with the manufacture of the corresponding main equipment/ component, will be warranted for trouble free operation if used within a period of 24 months (reckoned from the date of delivery at Site). However, if such spare parts are put to use after 24 months of the delivery at site then the guarantee of such spares will stand valid till the expiry of 36 months from the scheduled date of the completion of commissioning of equipment/plant of trouble free operation after such spares are put in service.	We request to modify the clause as given below "The DLP/Warranty period shall be twelve (12) months from the date of supply under this Contract (hereinafter referred to as "the Warranty Period"), which results during Warranty Period in the defective equipment, any defect for the reasons that is solely attributable Contractor with the exceptions on following: i. anomalies arising from supplies or parts provided by the Purchaser without conforming to technical specification mutually agreed with the Supplier. ii. normal abrasion, normal corrosion or normal wear and tear of the supplies. iii. use or storage of the Equipment that does not comply with technical specifications agreed by both Parties. iv. in the event of repair, modification, dismantling or reassembly connection of the Equipment not carried out by Supplier v. incorrect use of equipment by the Purchaser.	No change. Comply as per tender documents.



SL N.	Tender Reference	Tender Description	Pre-Bid query (Commercial) received	Reply of NHPC LTD.
44	Clause 4.0 GUARANTEES/ WARRANTY Section 6, SCC, Page 116.	GUARANTEES/ WARRANTY	To be included - Warranties will not be applicable : 1) For usual wear and tear of equipment and material 2) If there is alteration and misuse of the equipment/ material by the Purchaser 3) If defects are caused by events outside the control of Supplier after the acceptance of supplies and works.	Shall be regulated as per existing clause.
45	Clause 4.0 / 51.1 (5) GUARANTEES/ WARRANTY Section 6, SCC, Page 116.	It must be clearly understood that the Contractor shall be responsible for free of cost replacement at site, any parts of the equipment, that may prove faulty or fail by reasons of any of the causes as stated above, within Twenty four months after equipment has been put into operation.	We would like to propose the following DLP definition : Warranties commencing at 18 months from dispatch of material/ equipment/ mandatory spare parts or 12 months after the equipment is put into operation. We request the above to be considered for the Defect Liability definition.	Shall be regulated as per existing clause.
46	Clause 4.0 / 51.2 GUARANTEES/ WARRANTY Section 6, SCC, Page 116.	If it becomes necessary for the Contractor to replace or renew any defective parts of the Plant under this clause, the provisions of the first para, of this clause shall apply to the parts of the plant so replaced or renewed until the expiration of six months from the date of such replacement or renewal or until the end of the above mentioned period of eighteen months, whichever may be later.	For the repaired and replaced part the warranty shall be extended to 6 months from the date of repair/ replacement. The aggregate warranty shall be provided for a maximum of 24 months from the date of receipt of material/ equipment at site or 18 months from commissioning whichever is earlier. Kindly confirm.	Shall be regulated as per existing clause.
47	Section-VI/SCC/CI-7.0/Terms of Latent Defect and Omissions, Page 117.	Any apparatus or part thereof that shall develop defects not disclosed prior to the acceptance by the purchaser within a year after the equipment is placed in service, shall be promptly replaced by the supplier free of charge.	Please add the following text underlined: Any apparatus or part thereof that shall develop defects not disclosed prior to the acceptance by the purchaser within a year after the equipment is placed in service, shall be promptly replaced by the supplier free of charge. <u>However, only if the Purchaser can prove that the defect was caused by the Contractor.</u>	Necessary corrigendum has been published.
48	Page No. 117	LATENT DEFECTS AND OMISSIONS:	Latent defect clause is not applicabel to bidder.	Necessary corrigendum has been published. No further Change.
49	SECTION-VI SPECIAL CONDITIONS OF CONTRACT (SCC)	12.0 CONTRACT DELIVERY/ WORK SCHEDULE:	We request to modify the Work Schedule Terms for a below - Submission of Drawings & Technical documents within 90 days from the contract Agreement. - Supply of Control and Monitoring System (including Specified Spare Parts and all accessories) and Dismantling of all old systems and Erection, Testing and Commissioning of new Control and Monitoring System including all other components. Within 24 (Twenty Four) months after approval of Technical documents & drawings Complete Unit shutdown will be required during commissioning Period. Kindly Review and confirm	Shall be as per existing SCC clause and no modification is agreed.



SL N.	Tender Reference	Tender Description	Pre-Bid query (Commercial) received	Reply of NHPC LTD.
50	Section-VI/SCC/CI-14/Terms of Payment , Page 118.	Advance Payment	We request to please provide atleast 10% interest free advance against submission of Advance Bank Guarantee.	Necessary corrigendum has been published for Advance Payment.
51	Clause 14 Terms of Payment Section 6, SCC, Page 118.	Terms of payment - Supplies: I) 80% payment of the contract price of the material supplied along with 100% taxes and duties subject to documentary evidence against presentation of the following document: - Invoice in triplicate (One Original + Two copy) - RR/LR/GR	We would like to propose the following Payment terms : 20% on submission of technical documents / drawings 70% payment of the contract price of the material supplied along with 100% taxes and duties subject to documentary evidence against presentation of the following document: - Invoice in triplicate (One Original + Two copy) - RR/LR/GR - Detailed packing list/ challan duly acknowledged by the consignee.	Shall be regulated as per existing clause.
52	Page No. 118	12.0 CONTRACT DELIVERY/ WORK SCHEDULE:	Please provide the clear schedule of the Erection , testing and commissioning with the shutdown duration for each unit.	No change. Comply as per tender documents.
53	SECTION-VI SPECIAL CONDITIONS OF CONTRACT (SCC)	41.1.1 FOR SUPPLY OF PLANT/ EQUIPMENT ETC: A) FOR SUPPLIES I) 80% payment of the contract price of the material supplied along with 100% taxes and duties subject to documentary evidence against presentation of the following document: II) Balance 20% of contract price of the material supplied shall be paid upon successful Erection, Testing & Commissioning and taking over of Control and Monitoring (SCADA) System.	We request to modify the Payment Terms for a below (i) 5% of the supply Contract Value on approval of drawings. (ii) 75% of the Contract value with 100% taxes and duties will be paid on pro-rata basis on receipt of equipment/materials at site (iii) Balance 20% of the Contract value will be paid after satisfactory erection, testing and commissioning of equipment at site on pro rata basis. Kindly Review and confirm	Shall be as per existing SCC clause and no modification is agreed.
54	Page No. 120	The Works shall be executed/ installed in the state of Sikkim (India), local taxes viz Work Contract Tax & BOCW may be applicable. Further the contractor has to acquaint themselves with prevailing rates of all taxes applicable in Sikkim.	Please confirm, whether BOCW clause is applicable to this tender or not.	Shall be regulated as per existing clause.
55	Clause 15.1 Taxes & Duties Section 6, SCC, Page 120.	The Works shall be executed/ installed in the state of Sikkim (India), local taxes viz Work Contract Tax & BOCW may be applicable. Further the contractor has to acquaint themselves with prevailing rates of all taxes applicable in Sikkim.	Price bid will be inclusive of GST and no further taxes shall be applicable considering the scope of work. Please confirm.	Shall be regulated as per existing clause.



SL N.	Tender Reference	Tender Description	Pre-Bid query (Commercial) received	Reply of NHPC LTD.
56	Page No. 121	Clause 19.0 LIMITATION OF LIABILITY of SCC	We request to modify the Limitation of Liability clause as given below "Limitation of Liability: Notwithstanding anything to the contrary contained in this Contract any other related or incidental document (i) neither Party shall be liable to the other for any indirect or consequential losses or damages including but not limited to any loss of profits, loss of production, loss of revenue or loss of use; and, (ii) the maximum aggregate cumulative liability of the Contractor for any all claims arising out of or in connection with this Contract, shall in no event exceed 100% of the Contract price."	No change. Comply as per tender documents.
57	Clause 24 (30.6) RESPONSIBILITY OF THE CONTRACTOR Section 6, SCC, Page 123.	30.6 The firm shall also be responsible for the safety of the equipment installed in the Power House and will execute the work in such a way that no damage occur to any plants and equipment.	Any expense arising from damage to equipment, which is not attributable to the Supplier, shall be charged to the Customer's account	Shall be regulated as per existing clause.
58	Clause 12 CONTRACT DELIVERY/ WORK SCHEDULE Section 6, SCC, Page 123.	1. Approval of Technical documents & drawings- Within 10 days after award of contract. 2. Supply, Dismantling, Erection, Testing and Commissioning of new Control & Monitoring system.- 12 Months after approval of technical document & drawings.	We request NHPC to increase the time as scope of work is quite complex. We request NHPC to consider the below delivery. 1. Approval of Technical document & drawings - 8 Weeks from award of contract. 2. Supply of Control & Monitoring System 15 months from drawing approval. 3. Dismantling, erection and testing, 2 months after receipt of material at site and handing over of the unit.	Shall be regulated as per existing clause.
59	Page No. 124	All the labour forces are to be engaged from the state of Sikkim and if the specialized quality workmen is not available, then the same may be arranged from outside.	We understand that this clause is not applicable for this tender. Bidder may depute the manpower anywhere from India without any restriction.	No change. Comply as per tender documents.
60	New Clause to be added	Covid19 Clause	Covid19 Clause: In India, according to the Office Memorandum on Force Majeure Clause ("FMC") issued by Ministry of Finance No.F.18/4/2020-PPD dt. Feb 19, 2020 disruption of supply chains due to spread of corona virus in China or any other country will be covered in the Force Majeure Clause. Further in March, 2020 Government of India has declared Covid19 as a "notified disaster" and World Health Organization (WHO) has categorized Covid19 as a pandemic situation. The Parties [i.e. Purchaser and Seller] are aware of the current outbreak of the Covid19 worldwide which impacts or may impact the normal business and execution of this Contract. The Parties agree that Contractor is entitled to any potential cost compensation, time extension, or other reasonably required adjustments in the Contract, if any consequences, whether directly or indirectly resulting out of, or in connection with the Covid19 outbreak, lead to delays in delivery of goods or provision of services, supplies or otherwise affect Contractor's contractual obligations and/or duties.	No change. Comply as per tender documents.



SL N.	Tender Reference	Tender Description	Pre-Bid query (Commercial) received	Reply of NHPC LTD.
61	New Clause to be added	Confidentiality	We request to include the given below in the contract "Either Party shall protect the confidential information disclosed by the other party provided under this Contract"	No change. Comply as per tender documents.
62	New Clause to be added.	Raw Material, Commodities, Transportation and Other Critical Components	<p>Raw Material, Commodities, Transportation and Other Critical Components</p> <p>The Parties hereby recognize the existence of a global severe shortage of electronic components (including, but not limited to, semiconductors), as well of market volatility in the availability and cost of other raw materials, commodities, transportation, and other critical components and/or elements, for an unpredictable period of time, which may impact normal business and the execution of the scope of delivery in a way and with a timing beyond Contractor's control (hereinafter "Excusable Event").</p> <p>Notwithstanding anything in the contract/terms and conditions/purchase order to the contrary, if after the date of Contractor's proposal or order confirmation or during the term of the performance of the contract/purchase order/confirmed purchase order an Excusable Event occurs, so that the costs of the Contractor's performance increase or Contractor's performance obligations are materially adversely affected, temporarily or permanently prevented or delayed, Contractor shall be relieved of any affected obligations and the Parties shall negotiate in good faith equitable adjustments of the Contractor's obligations in terms of:</p> <ul style="list-style-type: none"> reasonable extensions of the original date of delivery or completion; equitable adjustments in the price, to compensate Contractor for any documented increase in components, raw materials, commodity and/or transportation costs; possible reductions of the contractually owed quantity of the goods to be delivered to the Customer, with a view to employing reasonable efforts to ensure that the contract/purchase order/confirmed purchase order can at least be filled in part. <p>Agreed liquidated damages, any actual damages, penalties or other fines, otherwise payable by Contractor shall not apply for delays directly or indirectly caused by the Excusable Event. Customer cannot invoke such a delay as a cause for termination/cancellation of the Contract/Order, unless otherwise agreed between the Parties. In the event of a prolonged Excusable Event, Contractor retains the ability to terminate any affected agreement for convenience, by servicing notice to Customer to this effect.</p> <p>In case of termination/cancellation of the contract/purchase order/confirmed purchase order directly or indirectly caused by the Excusable Event, each Party waives any claim against the other Party either for direct damages and/or loss of profits and/or indirect and/or intermediate damages, penalties and/or liquidated damages If any dispute or difference arises between the Parties, the Parties hereto shall endeavor to settle such dispute amicably. Any contract, order acceptance or order confirmation by Contractor is entered into and made subject and conditioned to the above terms, which the Parties recognize as fundamental conditions of any such agreement within the Parties</p>	No change. Comply as per tender documents.
63	New Clause to be added.	Title and Ownership	Transfer of ownership to the Purchaser shall be only after complete payment to Contractor. The risk of the asset/item/equipment shall transfer to Purchaser after delivery of items by Contractor wherein the scope including safe custody and storage, safety and security with its associated responsibilities and costs of the delivered asset /item/ equipment shall be fully in Purchaser scope under this Contract.	No change. Comply as per tender documents.
64	New Clause to be added.	BOCW Cess	In case of liability of paying cess under the BOCW Act & BOCWW Cess Act by Contractor, Purchaser shall fully reimburse the entire costs and expenses to Contractor.	No change. Comply as per tender documents.
65	New Clause to be added.	Statutory variation	Statutory variation: Any increase in duties, taxes/levy of new duties/taxes under existing or future laws of State/Central Government including GST & any cost implication on account of change in law shall be paid / reimbursed extra by the Purchaser to Contractor which includes for the scope of supply, services of both Contractor & its vendor/sub-vendor directly to the end customer.	No change. Comply as per tender documents.

SL N.	Tender Reference	Tender Description	Pre-Bid query (Commercial) received	Reply of NHPC LTD.
66	New Clause to be added.	Risk Purchase	Unless the maximum liquidated damages limit has reached and the reasons are solely attributable to Contractor and reasonable cure period is provided to Contractor to cure the defect and if the reasons for delay, non-performance by Contractor is due to Force Majeure event, the Purchaser will not be entitled for right for remedy against Contractor under this Contract	No change. Comply as per tender documents.
67	New Clause to be added.	Price escalation	The price as set forth in this Contract has been calculated based on the current prices for the component(s), part(s) and raw material(s) (the "Parts") required to manufacture the products. However, due to the volatility of the prices of the Parts, Seller may encounter significant and potentially unanticipated increases in Parts pricing. Seller agrees to employ its reasonable commercial efforts to maintain the Parts pricing used to determine the price of Products as set forth in this Contract]. However, in the event of an increase in Parts pricing, Seller shall notify Purchaser thereof, and Purchaser shall pay the relevant increased pricing.	No change. Comply as per tender documents.
68	New Clause to be added	Compliance with anti-corruption law	Both Parties shall fully adhere and comply with all the applicable Indian laws including but not limited to laws, rules, regulations, decrees and/or official governmental orders relating to anti-bribery laws and anti-corruption, protecting human rights laws, anti-money laundering and anti-tax evasion laws applicable to the Parties and performance of this Contract in India. Parties hereby agree that only in the event of a non-compliance of tax evasion laws either party has a right to terminate this Contract after giving a written notice of thirty (30) days to cure the said non-compliance. Contractor adheres with Contractor Code of Conduct.	No change. Comply as per tender documents.
69	New Clause to be added.	Entire Agreement	Entire Agreement: This Contract constitutes the entire agreement between the Parties with respect to the subject matter of this Contract and supersedes all communications, negotiations and agreements (whether written or oral) of Parties with respect thereto made prior to the date of this Contract.	No change. Comply as per tender documents.
70	New Clause to be added.	priority of documents	All deviations mentioned in this document shall be integral part and parcel of the Contract and shall supersede and prevail over any other T&Cs of the Contract	No change. Comply as per tender documents.
71	New Clause to be included	New Contractor Clauses	We request to include the attached Contractor clauses i.e Integrity Provision , Contractor code of Conduct, End User form ., as part of the tender conditions	No change. Comply as per tender documents.



SL N.	Tender Reference	Tender Description	Pre-Bid query (Technical) received	Reply of NHPC LTD.
1	Bid Document Brief Detail of Work	Visualization & Alarm Management Zoomable process graphics 3. EEMUA 191 and ISA SP 18.2-compliant alarm analysis and alarm management module	Process graphics are included lot of process parameter therefore zooming is not possible. Alarm system is integral part of DCS system and designed as per hydro standards Kindly Review & Confirm	Comply as per tender document specification. No change.
2	Bid Document Brief Detail of Work	(D) Intrusion detection system Modbus TCP/IP interface is needed for GE make Excitation system, CRP panels and any other third party system communication. The Integration of these third party system with SCADA shall be in the scope of contractor. 2. The communication of the Governor system is being made through Device-Net protocol. The Integration of Governor system shall be in the scope of contractor. 3. The OEM Support (Governor –M/s Toshiba: Excitation system: M/s GE), if needed will be in the scope of supplier/contractor	Complete details of communication parameters and tags addresses is required from NHPC for establishing communication with Excitation/Governor/Protection Further respective engineers from supplier of Excitation/ Governor/ Protection will be required during commissioning same shall be in scope of NHPC only Kindly Review and Confirm	The first proposal is agreed. However the second proposal i.e., Engineers from supplier of Excitation/ Governor/ Protection shall be in the scope of the Contractor as per Tender condition.
3	Bid Document Brief Detail of Work Clause 1.3.5	DCS controllers for LCBs and UCBs microprocessor based design suitable for harsh industrial environments. All power supply cards, I/O module connections and other external interfaces shall be provided with suitable surge protection devices to protect the controllers and internal circuitry from external surges. The surge arrester should be tested as per IEC	Surge protection device is internal part of CPU, I/O cards therefore additional external surge arrestors are not foreseen. Kindly Review and Confirm	Comply as per tender document specification. No change.
4	Bid Document Brief Detail of Work Clause 1.4.14	On-line help and diagnostic system	Apart from Operation Manual & Engineering drawing submitted , Online Help & diagnostic system will be available on supplied on all Engineering software tools , Kindly Review and Confirm	Comply as per tender document specification. No change.
5	Bid Document Brief Detail of Work Clause 1.4.20	Communication interfacing The Contractor shall provide router/ gateway with necessary hardware firewall functionality, interfaces and accessories suitable for communication between power house control room and corporate office control room through Employer's CUG (Closed User Group) network. The interfaces on the router to which VSAT/Leased	We understand that Router/Firewall with communication facility on specified protocols is to be provided by Contractor. Testing/interface with Power House end will be in Contractor scope and Remote end Interface / Communication will be in NHPC's Scope. Kindly Review and Confirm	Not mentioned in this clause means NHPC's Scope.



SL N.	Tender Reference	Tender Description	Pre-Bid query (Technical) received	Reply of NHPC LTD.															
6	Bid Document Brief Detail of Work Clause 1.4.21	Audio visual alarm system Each Local Control Board shall have its independent facilities for Alarm and Annunciation. The system shall be complete with Horns, alarm network / cabling etc.	Audio visual Alarm system is integral part of SCADA system hence separate Alarm system is not Foreseen. Kindly Review and Confirm	To be complied as per bid condition clause No. 1.4.21 under Section-VIII "Scope of Work".															
7	Bid Document Brief Detail of Work Clause 1.1.13	The architectural finishing work, i.e., suspended ceiling, flooring, furniture, wall finishing, LED luminaries for a minimum 500 lux illumination level etc. required for the Central Control Room, in accordance to Clause 1.5.16, shall be in the scope of execution of this contract.	As the supply & commissioning of SCADA Systems is a Specialized work with specific equipment suppliers, which do not have any expertise on civil works of this scale, Therefore request you to remove the following clause from Scope of Work. Kindly Review and Confirm	Shall be governed as per clause No. 1.4.4 of Section-VIII "Scope of Work".															
8	Bid Document Brief Detail of Work Clause 1.7.1	Special tools The Contractor shall supply various tools mentioned below. The list of such tools, including their make and detailed specifications, shall be submitted for acceptance by the Employer. i. Two (2) sets of crimping tools of each type used for installation of networks and cabling, ii. One (1) set of optical time domain reflectometer, iii. One (1) no. of fusion splicing equipment with accessories iv. One (1) Optical Power Meter.	We understand that no outdoor FO cables are in scope of the contractor, so therefore optical tools are not relevant to the scope of supply kindly remove them from scope of Supply. Kindly Review and Confirm	As per clause No. 1.7.1 under "Scope of Work" the tools shall be submitted for acceptance by the Employer and the said clause is the integral part of the tender document. Hence no change is suggested.															
9	Bid Document Brief Detail of Work Clause 2.0	Cyber Security viii. The patch management as per cyber security requirement is to be done by the vendor. The procedure for same is to be mentioned	Basic component for patch management will be part of the scope of supply and license of the same will be valid till the warranty period. Recurring Charges after warranty period will not be part of Scope of the contractor. Kindly Review and Confirm	Agreed & Confirmed.															
10	Bid Document Brief Detail of Work QAP	<table><tr><td>2</td><td>Emergency Shutdown Systems for individual Unit and entire (104)</td><td></td></tr><tr><td>a)</td><td>Performance Test Certificate</td><td>Test</td></tr><tr><td>b)</td><td>Checking of Make, Type, & Rating</td><td>Visual</td></tr><tr><td>c)</td><td>General Visual Inspection.</td><td>-do-</td></tr><tr><td>d)</td><td>Functional Test.</td><td>Test</td></tr></table> <small>Rev. 0 To 11 Commissioning Schedule column 4 To 5 in the Bid 1.</small>	2	Emergency Shutdown Systems for individual Unit and entire (104)		a)	Performance Test Certificate	Test	b)	Checking of Make, Type, & Rating	Visual	c)	General Visual Inspection.	-do-	d)	Functional Test.	Test	Emergency shutdown system is part of UCB – Tests during commissioning period therefore separately mention in QAP is not required. Kindly Review and Confirm	Shall be regulated as per QAP.
2	Emergency Shutdown Systems for individual Unit and entire (104)																		
a)	Performance Test Certificate	Test																	
b)	Checking of Make, Type, & Rating	Visual																	
c)	General Visual Inspection.	-do-																	
d)	Functional Test.	Test																	

SL N.	Tender Reference	Tender Description	Pre-Bid query (Technical) received	Reply of NHPC LTD.
11	Bid Document Brief Detail of Work	5 Video Display/ Large Screen Display Units a) Performance Test Certificate	Kindly remove Large Screen as this is not in scope. Kindly Review and Confirm	Necessary Corrigendum has been done.
12	Bid Document Brief Detail of Work	1 Optical Fiber Cable Routine Tests	Only internal Panel FO cables are in scope this will be prefabricated type only TC is sufficient please remove routine test Kindly Review and Confirm	Shall be regulated as per QAP.
13	Bid Document Brief Detail of Work	7 Surge Protection Devices 0 Pulse 0 Routine Test	Please remove surge protection device as these are integral part of CPU & I/O cards. Kindly Review and Confirm	Shall be regulated as per QAP.
14	Bid Document Brief Detail of Work		Any instrument is not in scope of supply, healthiness of all instruments related to signals will be ensured by NHPC and during commissioning if any instrument found not working/unhealthy then replacement/corrective action to make this fine will be in NHPC scope Kindly Review and Confirm	Not applicable since the same is not the part of tender document.
15	Bid Document Brief Detail of Work		During dry commissioning & commissioning tests shall be witnessed by dedicated team at site by NHPC and duly signed immediately after performing tests and ensuring taking over of unit after successful synchronization, Kindly Review and Confirm	Not applicable since the same is not the part of tender document.
16	Bid Document Brief Detail of Work		No control and power cable in scope of supply if any existing cable found faulty then replacement will be in NHPC scope, Kindly Review and Confirm	Not applicable since the same is not the part of tender document.
17	Clause 1.1.11	Dismantling of Existing panels and Control Cables:Existing Unit control and Local Control panels shall be retained.	We understand that including panels , all other Panel accessories such relays , terminals shall be retained. Please confirm.	Confirmed.
18	Clause 1.1.11	Dismantling of Existing panels and Control Cables:Existing Unit control and Local Control panels shall be retained.	Please share the GA drawings of existing Panels .	Agreed and will be provided during detailed engineering.
19	Page No. 118	12.0 CONTRACT DELIVERY/ WORK SCHEDULE: Approval of Technical documents & drawings :Work should be completed within 10 days after award of Contract.	1 Set of Surge protector shall be provided for Input Power Supply (SMPS)of the DCS Panel . Since the Power Supply for ethernet switches sourced from this SMPS , no individual Surge Protector shall be supplied . Please confirm.	Comply as per tender documents.
20	Page No. 119	41.1.1 FOR SUPPLY OF PLANT/ EQUIPMENT ETC: Balance 20% of contract price of the material supplied shall be paid upon successful Erection, Testing & Commissioning and taking over of Control and Monitoring (SCADA) System.	If there is any delay in commissioning for more than 120 days from date of supply which is not attributable to bidder , 20% of payment against commissioning shall be released against submission of equivalent value of BG. Please confirm.	Comply as per tender documents.

SL N.	Tender Reference	Tender Description	Pre-Bid query (Technical) received	Reply of NHPC LTD.
21	Page No. 122	22.0 TEST SERVICE PERIOD:	The test parameters which will be shown during commissioning/ Test Service period shall be mutually agreed during detailed engineering phase . Please confirm.	Comply as per tender documents.
22	Page No. 122	Functional Guarantee	Please confirm the required parameters to be shown in Functional Guarantee and kindly explain in detail.	Comply as per tender documents.
23	Page No. 126	The HMI system shall be latest total plant automation system and an integrated control platform for the entire range of control applications, required for this plant, including electrical IED's integration on latest electrical standard, IEC 61850 for operation and monitoring.	We understand that existing Protection relays doesnot supports IEC 61850 protocol. We have to offer the system with the provision of IEC 61850 Protocol for future integration only . Please confirm.	IEC 61850 Protocol for future integration as well as connectivity with existing Protocol of the Relay.
24	Brief Details of Work/Page126	In order to avoid duplicate inputs and to assure a consistent design, a common platform SCADA system and Common data base for Plant automation system and Electrical system including protection relays shall be part of offered solution	Protection relays are not in Bidder scope of supply as this is SCADA Package.	Agreed.
25	Page No. 127	HMI System software connectivity for IEC60870-5-104, IEC61850 devices.	We understand that, IEC 104 Protocol is only for SLDC communication and IEC 61850 is for Relay Communication. Please confirm.	Comply as per tender documents.
26	Page No. 127	HMI System software connectivity for IEC60870-5-104, IEC61850 devices.	Please provide the Qauntity of Relays which has to be communicated in IEC 61850 communication.	Comply as per tender documents.
27	Brief Detail of Work Page 127	Application Programming Interfaces: 1. API that allows to natively connect 3rd party software to HMI System.	Kindly elaborate the requirement .Please note that 3rd party softwares API's are not allowed to be connected due to security and safety of the network.	Comply as per tender documents.
28	Page No. 129	Modbus TCP/IP interface is needed for GE make Excitation system, CRP panels and any other third party system communication. The Integration of these third party system with SCADA shall be in the scope of contractor.	Offered system shall have the MODBUS TCP/IP functionality to interface with the third party system such as Excitation and CRP Panels . However , NHPC to provide support from Excitation , Protection relay Panels OEM for such interface during commissioning. Please confirm.	Comply as per tender documents.
29	Page No. 129	The communication of the Governor system is being made through Device-Net protocol. The Integration of Governor system shall be in the scope of	NHPC to providesupport from Governor Panel OEM for such interface during commissioning . Please confirm.	Comply as per tender documents.
30	Page No. 129	Module level time resolution of 1ms shall be considered for sequence of events for limited Digital Input signals. (The details shall be provided by PowerStation)	Please provide the Qty of SOE signals to be provided for each unit and for other axillaries.	Comply as per tender documents.

SL N.	Tender Reference	Tender Description	Pre-Bid query (Technical) received	Reply of NHPC LTD.
31	Page No. 129	Existing LVS screens shall be retained	We understand that , existing LVS may have the display controller and bidder to interface only the Graphics in existing LVS display and no any other supply scope is envisaged. Please confirm.	Confirmed
32	Page No. 129	One (01) nos. of OWS out of Four (04) nos. of OWS shall be installed at DAM for Local operation of DAM.	1 no of OWS shall be supplied for Dam Location with required FO converters . However, required FO cable connectivity shall be in the scope of NHPC. Please confirm.	Confirmed
33	Page 129	1. Modbus TCP/IP interface is needed for GE make Excitation system, CRP panels and any other third-party system communication. The Integration of these third-party system with SCADA shall be in the scope of contractor. 3.The OEM Support (Governor –M/s Toshiba: Excitation system: M/s GE), if needed will be in the scope of supplier/contractor. 6. Communication to SLDC in IEC 104 interface shall be done with existing PLCC network.	1. It is requested to provide the existing signal list for this interface. 3. It is requested to provide the Excitation system M/s GE interface details and signal list. 6. It is requested to provide the signal list for the IEC 104 interface to SLDC through the PLCC.	Agreed.
34	Page 129	4. HMI of 12" or above for local operation on each unit panel and all other control systems is required	HMI size will be decided by available panel cut-out.	No change.
35	Page 129	5.Existing panels shall be retained and only new mounting plates with wired and terminated accessories shall be supplied by supplier.	Please confirm that existing panels in DAM control room shall be retained.	No panel is available at Dam Control room. Need to supply new panels along with all accessories.
36	Page 129	9. Existing PC tables shall be retained and same shall be utilized to mount the newly supplied PCs/Servers	Under the clause no. 1.4.4.3 in page no. 156, it is mentioned that "In the control room three operator workstations with desks shall be provided". Bidder understands that the existing PC table and desks will be retained and there is no desk in scope of Bidder. Please confirm.	Confirmed that no desk in scope of Bidder.
37	Intrusion detection system Brief Detail of Work Page 129	1.Modbus TCP/IP interface is needed for GE make Excitation system, CRP panels and any other third party system communication. The Integration of these third party system with SCADA shall be in the scope of contractor.	Kindly note that provision of the MODBUS TCP/IP shall be provided in our system.However to integrate the system any engineering/adresses/software modification required in exsisting Excitation system shall be in scope of NHPC. Kindly confirm.	The first proposal is agreed. However the second proposal i.e., Engineers from supplier of Excitation/ Governor/ Protection shall be in the scope of the Contractor as per Tender condition.
38	Intrusion detection system Brief Detail of Work Page 129	2.The communication of the Governor system is being made through Device-Net protocol. The Integration of Governor system shall be in the scope of contractor.	Kindly note that provision of the hardwired interface with Governor system shall be provided in our system. However to integrate the system any engineering/Hardware required/ adresses/software modification required in exsisting Governing system shall be in scope of NHPC. Kindly confirm.	The first proposal is agreed. However the second proposal i.e., Engineers from supplier of Excitation/ Governor/ Protection shall be in the scope of the Contractor as per Tender condition.
39	Intrusion detection system Brief Detail of Work Page 129	3.The OEM Support (Governor –M/s Toshiba: Excitation system: M/s GE), if needed will be in the scope of supplier/contractor.	External OEM Support needed shall be in scope of NHPC only. Kindly confirm.	External OEM support shall be in the scope of the Contractor as per Tender condition.













SL N.	Tender Reference	Tender Description	Pre-Bid query (Technical) received	Reply of NHPC LTD.
40	Intrusion detection system Brief Detail of Work Page 129	Brief Details of Work 12. Four (04) nos. of Operating work station, 1 Engineering Work Station (Fixed), One Mobile Operating Station and One Mobile Engineering Station Shall be provided by the Contractor 13. One (01) nos. of OWS out of Four (04) nos. of OWS shall be installed at DAM for Local operation of DAM.	Since Workstation requirement are written at different clauses. Kindly Clarify the quantity of various SCADA control system workstation and functioning requirements. As understood following are the requirements: 1) Three (3 Nos.) of Operator workstation with dual screen shall be placed at Power house control room 2) One (1 No.) of Operator workstation with single screen shall be placed at Dam area room 3) One (1 No.) of Portable Operator Station shall be placed at Power house control room 4) One (1 No.) of Engineering workstation with single screen shall be placed at Power house control room 5) One (1 No.) of Portable Engineering workstation shall be placed at Power house control room 6) Out of (3 Nos.) of Operator workstation placed at Power house control room as mentioned above-2 shall act as servers + Historian (One main+standby) 7) Only 2 Nos. printers are required for Power house 8) One gateway server/licences for remote communication with firewall (OPC UA/DA/ HDA enabled) enabled at power house for remote communication Kindly confirm the same. NHPC further to provide required DC feeders/UPS AC feeders/Auxiliary supply for various control system equipments at various locations.	Shall be regulated as per Sl. No. 12 & 13 under "Brief Details of Work" clause No. (D) in conjunction with clause No. 1.1.2 of Section-VIII "Scope of Work". Further the servers shall have to be supplied separately. The Network Attach Server(NAS)/ Historian Server with at least six-month Data Storage capacity shall be supplied separately. The other conditions of clause No. 1.1.2 of Section VIII "Scope of Work" shall have to be complied.
41	1.1.2 Central Control Centre Section 8, Scope of Work Page 139 - 140	1.1.2 Central Control Centre Central Control Centre shall comprise of the following equipment: - Three (3) Operator Workstations each with three sets of dual redundant LED backlit monitors and all necessary accessories and software, - One (1) Fixed Engineering station with all necessary accessories and software, - One (1) Portable Engineering station with dockable arrangements, printer, all necessary accessories and software, - One (1) Portable Operator Workstation with dockable arrangements, printer, all necessary accessories and software, - Two (2) servers (One main + one hot standby) - Network Attach Server(NAS)/ Historian Server with at least six-month Data Storage capacity. - Two nos. of printers A3/ A4 size for printing. - One gateway server for Station with all hardware and lifetime license for remote communication with firewall (OPC UA/DA/ HDA enabled) for Corporate office, Faridabad for real time monitoring (As per Annexure-A). - The gateway server with all necessary accessories & software, firewall arrangements for data telemetry, Remote operation from corporate office, Monitoring from HOP room.		
42	1.4.4.6 Simulator and training Section 8, Scope of Work Page 158	1.4.4.6 Simulator and training One separate simulator station with all accessories for operational staff shall be integrated into the system and included in the scope of supply		To be complied. No modification suggested.
43	Annexure-I of Section-VII/Page 132	Bill of Material	If scope of supply of Bidder includes Printer also then NHPC is requested to indicate the Total Qty. of Printer also in this table.	Two nos. of printers A3/ A4 size for printing shall be in the scope of bidder



SL N.	Tender Reference	Tender Description	Pre-Bid query (Technical) received	Reply of NHPC LTD.
44	Page No. 132	Control and Instrumentation cables	We understand that all existing field cable shall be retained. There will be no requirement of adding new signals from field to Proposed DCS Panels. Please confirm.	Comply as per tender documents.
45	Page No. 132	Bill Of Material: 20 OPC Server	Workstation machine with required software licenses (OPC License) shall be supplied as a gateway PC station. Please confirm.	Comply as per tender documents.
46	CI-1.1/Scope of work/Page 134	Scope of Work Under this section covers the provision of labour, tools, plants, materials, and performance of delivery at site, <u>site storage and preservation</u> , installation, <u>guarantee for two years of control and monitoring system</u> as per the specifications hereunder, complete with all auxiliaries, accessories, spare parts and warranting a trouble-free safe operation of the installation.	1. As Bidder don't have any store at Teesta-V site, hence NHPC is requested to provide the proper storage and preservation facility. This is normal practice in any upgradation PJ. 2. In place of Guarantee, warranty shall be applicable, and the duration will be Total twelve (12) months from the date of supply of SCADA at Teesta-V site.	1. NHPC will provide only closed indoor area for storage. 2. As per tender documents.
47	Page No. 140	1.1.2 Central Control Centre: Two (2) servers (One main + one hot standby) . Network Attach Server(NAS)/ Historian Server with at least six month Data Storage capacity.	As per OEM standard , redundant HMI/Historian Server and individual Network Attached Server (NAS) shall be supplied . Please confirm.	Comply as per tender documents.
48	Page No. 140 Clause No. 1.1.4	Existing system shall be retained. However, any software or hardware required for interfacing with the new SCADA shall be in the scope of the Contractor. Also, the protocol of each communicable relay is to be supported, i.e. MODBUS,BECO 2200, and DNP 3.0, as per IEC 61850 and latest applicable IEC communication protocol considering provision for future upgradation Numerical Relays.	Request to share the part no of existing relays and please confirm its compatibility with the given protocols .	Comply as per tender documents.
49	Page No. 140 Clause No. 1.1.5	The Inverter and ACDB are already installed and the necessary AC/DC Power Supply shall be provided by NHPC.	We understand , power cables from DC charger to existing Panels, UPS to PC & Server shall be retained and no new power cables shall be required . Please confirm.	Power Cables will be in the scope of bidder.



SL N.	Tender Reference	Tender Description	Pre-Bid query (Technical) received	Reply of NHPC LTD.
50	CI-1.1.2/Central Control Centre, Page-140	Three (3) Operator Workstations each with three sets of dual redundant LED backlit monitors and all necessary accessories and software,	The present requirement translates into six (06) nos. of monitors for each of the Operator Workstation. Bidder's understanding is scope of supply will include Total Six (6) Nos. LED monitors for three (3) nos. Operator Workstations.	Confirmed.
51	CI-1.1.2/Central Control Centre, Page-140	•One (1) Portable Engineering station with dockable arrangements, printer, all necessary accessories and software,	Refer S.No.43 for the clarification on Printer Qty.	Reply provided at S. No.43 above.
52	CI-1.1.2/Central Control Centre, Page-140	•One (1) Portable Operator Workstation with dockable arrangements, printer, all necessary accessories and software,	Refer S.No. 43 for the clarification on Printer Qty.	Reply provided at S. No.43 above.
53	CI-1.1.2/Central Control Centre, Page-140	Two (2) servers (One main + one hot standby)	NHPC may clarify the purpose of the server. It is also not appearing in the BOM table.	Comply as per tender document specification. No change.
54	CI-1.1.2/Central Control Centre, Page-140	<ul style="list-style-type: none"> • Three (3) Emergency shutdown systems one for each individual unit. • One gateway server for Station with all hardware and lifetime license for remote communication with firewall (OPC UA/DA/ HDA enabled) for Corporate office, Faridabad for real time monitoring (As per Annexure A). • The gateway server with all necessary accessories & software, firewall arrangements for data telemetry, Remote operation from corporate office, Monitoring from HOP room. 	<p>1. Bidder understands that shutdown interlocks, logics will be as per existing implemented interlocks and logics, and there won't be any separate Emergency shutdown system. Please confirm.</p> <p>2. Bidder understands that the plant operational data signal transfer to Corporate office will be uni-directional only, as per Page 129, Clause 14 the data is to be sent and no receiving of data., from plant to Corporate office, instead of data telemetry and remote operation from Corporate office. Please confirm.</p>	<p>1. Confirmed.</p> <p>2. The gateway server with all necessary accessories & software, firewall arrangements for data telemetry, Remote operation from corporate office, Monitoring from HOP room.</p>
55	Teesta-V Power Station Bid Document Page-129/Page-140	<p>6. Communication to SLDC in IEC 104 interface shall be done with existing PLCC network.</p> <p>1.1.2 Central Control Centre</p> <ul style="list-style-type: none"> -One gateway server for Station with all hardware and lifetime license for remote communication with firewall (OPC UA/DA/ HDA enabled) for Corporate office, Faridabad for real time monitoring (As per Annexure-A). -The gateway server with all necessary accessories & software, firewall arrangements for data telemetry, Remote operation from corporate office, Monitoring from HOP room. 	<p>We would like to clarify that, the preferred communication protocol is IEC 60870-5-104 for external communication from the Powerhouse DCS system.</p> <p>GE's battery limit is up to the EtherNet ports of the appropriate n/w switches / firewall modules in the process network.</p> <p>Please review & confirm.</p>	Comply as per tender document specification. No change.

SL N.	Tender Reference	Tender Description	Pre-Bid query (Technical) received	Reply of NHPC LTD.
56	Teesta-V Power Station Bid Document Page-140	1.1.4 Protection System -Existing system shall be retained. However, any software or hardware required for interfacing with the new SCADA shall be in the scope of the Contractor. Also, the protocol of each communicable relay is to be supported, i.e. MODBUS, BECO 2200, and DNP 3.0, as per IEC 61850 and latest applicable IEC communication protocol considering provision for future upgradation Numerical Relays.	We would like to clarify that, the preferred communication protocol is IEC 61850 for communication with Protection relays. Please review and confirm.	Agreed & Confirmed. However, any software or hardware required for interfacing with the new SCADA shall be in the scope of the Contractor 
57	Teesta-V Power Station Bid Document Page-141/Page-143	1.1.10 Interfacing services and supply SCADA system and other online processing & measuring equipment shall be provided with suitable rating of Class C Type Surge protection devices. Surge arrester shall be tested as per IEC 61643-1. The surge arrester shall be pluggable type and shall have indication facility to indicate its health. However, any other proven method of surge protection shall also be acceptable subject to approval by the employer. All the control system equipment including UCBs, LCBs, Data loggers & retrieval System, routers, serial & digital interfaces of communication network Ethernet switches, power supply cards, I/O module connections and other external interfaces should have suitable rating of surge protection device at functional level. Surge protection devices for AC & DC supply of UCBs/ LCBs/RTU shall be of pluggable type. The surge protection device shall be tested with IEC61643-1. The surge arrester should have failure indication facility.	The primary purpose of the surge protection devices is to safeguard circuits and equipment from lightning surges, which mostly affect equipment outside the power plant. The components inside the powerhouse are properly grounded with Plant Earthing system. Further, as per our standard practices, the control circuits along with all automation & networking hardware in the control panels are used 24VDC which is derived through redundant 220VDC/24VDC converters & diode protection module. The converters used are of reputed make using industrial standards & having the inbuilt transient surge protection for the incoming voltage range. For the external interfaces (I/Os of outside area of power house like switchyard), we are providing the Isolation by the interposing relays/optical interface card before connecting to the Controller I/O modules. So, GE will not consider the additional SPD device for IO channels and for devices used in the control system.	Comply as per tender document specification. No change.         



SL N.	Tender Reference	Tender Description	Pre-Bid query (Technical) received	Reply of NHPC LTD.
58	Page No. 140 1.1.2 Central Control Centre	Two (2) servers (One main + one hot standby)	As per OEM standard , this redundant server shall have HMI Server License as well as the History Licenses. Please confirm.	Comply as per tender documents.
59	Page No. 140 1.1.2 Central Control Centre	One gateway server for Station with all hardware and lifetime license for remote communication with firewall (OPC UA/DA/ HDA enabled) for Corporate office, Faridabad for real time monitoring (As per Annexure A).	Workstation grade machine with required software licenses (OPC License) shall be supplied as a gateway server. Please confirm.	Comply as per tender documents.
60	Page No. 140 1.1.2 Process control networks & Power house LAN	New Fibre Optic P ower House LAN with all necessary accessories and interfaces,	We understand that , only the Proposed DCS system shall be interfaced with this network.	Comply as per tender documents.
61	Page No. 140 1.1.2 Process control networks & Power house LAN	New Fibre Optic Central Control Room Network with all necessary accessories and interfaces,	We understand that , Control Room components such as PC, Server and NAS shall be interfaced with this network. Please confirm.	Interconnectivity between Controllers, PC, Server and NAS shall be interfaced with OFC.
62	Page No. 140 1.1.2 Process control networks & Power house LAN	New Fibre Optic Plant Control Network with all necessary accessories and interfaces,	Please provide the list of devices which has to be interfaced with this network.	As per Network Diagram already available with Tender Documents.
63	Page No. 140 1.1.4 Protection System	Existing system shall be retained. However, any software or hardware required for interfacing with the new SCADA shall be in the scope of the Contractor. Also, the protocol of each communicable relay is to be supported, i.e. MODBUS,BECO 2200, and DNP 3.0, as per IEC 61850 and latest applicable IEC communication protocol considering provision for future upgradation Numerical Relays.	No Hardwares/ Softwares shall be supplied by bidder for interfacing DCS with the existing Relay panels. Since, the existing relays are hardwired with the UCBs Panels, communicating in Soft Signals may not be required. Please confirm.	Comply as per tender documents.
64	Page No. 140 1.1.2 Central Control Centre Printer quantity .		Printer quantity provided in Page no. 142 Clause No . 1.1.12 and Page No. 140 is contradictory. Please confirm which clause bidder to follow.	Both clauses to follow.
65	Page No. 140 1.1.13	The architectural finishing work, i.e., suspended ceiling, flooring, furniture, wall finishing, LED luminaries for a minimum 500 lux illumination level etc. required for the Central Control Room, in accordance to Clause 1.5.16, shall be in the scope of execution of this contract.	We understand that this clause is not relevent to this tender and scope of work . Please confirm.	Comply as per tender documents. The Old Luminaires have to be replaced



SL N.	Tender Reference	Tender Description	Pre-Bid query (Technical) received	Reply of NHPC LTD.
66	Page No. 141 1.1.7 Cable Accessories	All cable accessories like Cable lugs, cable glands, compression type terminals for control wiring, button tape (strap and studs), self-adhesive markers, aluminium strip, ferrules etc. shall be provided by the contractor as per clause no. 1.3.9.	Since, we are retaining the existing panels, accessories such as cable glands, cable lugs, terminals shall be retained and no supply of new glands shall be required. Please confirm.	Comply as per tender documents.
67	Page No. 141 1.1.9 Time synchronization	Output available at GPS system shall be IRIG-B, PPM, PPS, SNTP, PTP, Potential free contacts and FO etc. in addition to output for SCADA time synchronization.	As a standard practice , GPS shall be supplied with any one of these Protocols and not with the all. We prefer to supply GPS with SNTP Protocol. Please confirm.	Comply as per tender documents.
68	Page No. 141 1.1.9 Time synchronization	Supply & installation of cabling for GPS time synchronization of all equipment as deliberated above shall be in the scope of the supplier Universal time synchronization system and required convertor shall be in the scope of Contractor	GPS Time Sync device shall be in bidder scope , however need confirmation from customer whether existing devices are capable to synchrorize with the GPS device. Based on cofirmation and quantity , BOQ will be considered accordingly .	Comply as per tender documents.
69	Page No. 141 1.1.10 Interfacing services and supply	communication and data acquisition. SCADA system and other online processing & measuring equipment shall be provided with suitable rating of Class C Type Surge protection devices. Surge arrester shall be tested as per IEC 61643 1. The surge arrester shall be pluggable type and shall have indication facility to indicate its health.	Surge Protector shall be provided only for the Main Power Supply line for UCBs and LCBs. Please confirm.	Comply as per tender documents.
70	CI-1.1.13/Page 142	The architectural finishing work, i.e., suspended ceiling, flooring, furniture, wall finishing, LED luminaries for a minimum 500 lux illumination level etc. required for the Central Control Room, in accordance to Clause 1.5.16, shall be in the scope of execution of this contract.	The architectural finishing work etc. have been strike off under the clause no. 1.4.4 page no. 154. Bidder understands this work is not applicable in Bidder's scope. Please confirm.	Necessary corrigendum has been published.
71	1.1.11 Dismantling of Existing panels and Control Cables Section 8, Scope of Work Page 142	1.1.11 Dismantling of Existing panels and Control Cables Existing Unit control and Local Control panels shall be retained. Existing cables from Field sensors shall also be retained. All other control and instrumentation cables shall be retained. The replaced control and instrumentation cables shall be the property of the employer.	Noted. It shall be discussed during detailed engineering which panels need to supplied as new fully tested panels and if the exisiting panel at site can be modified.In doing so the design shall assure Existing cables from, Field sensors shall also be retained. All other control and instrumentation cables shall be retained. NHPC further to ensure the healthyness of all field cables retaining the same cables upto comissioning of all units.We shall provide internal panel cables only.Any additional cables if any at later stage shall be in scope of NHPC only. Kindly confirm.	If any additional cable or its accessories required, it is in the scope of contractor.

SL N.	Tender Reference	Tender Description	Pre-Bid query (Technical) received	Reply of NHPC LTD.
72	1.1.12 Miscellaneous items Section 8, Scope of Work Page 142	Availability of expert for one year from date of commissioning of control system of the last unit.	Kindly clarify if remote support of expert from our head office is required for one year here. Commencement date of Availability of Expert shall be from the date of commercial operation handover of the last unit.	No change. If expert required at site then contractor must have to depute.
73	Section 8, Scope of Work Page 142	1.1.13 The architectural finishing work, i.e., suspended ceiling, flooring, furniture, wall finishing, LED luminaries for a minimum 500 lux illumination level etc. required for the Central Control Room, in accordance to Clause 1.5.16, shall be in the scope of execution of this contract.	Kindly clarify the scope of architectural work in detail.	Shall be governed as per clause No. 1.4.4 of Section-VIII "Scope of Work".
74	Teesta-V Power Station Bid Document Page-142	1.2.1 Layout and General Arrangement The control system shall have provision to provide plant control and monitoring capability and furnish data to the ERP/external system for execution of applications such as ABT, Condition Monitoring (CM) and centralised analysis.	Kindly clarify the requirement in more details. Also kindly confirm the communication protocol to exchange data between control system and ERP/external system. For example Communication with condition monitoring system will be done via modbus TCP/IP protocol.	This shall be worked out during detailed engineering.
75	Teesta-V Power Station Bid Document Page-143	1.2.1 Layout and General Arrangement The control system shall be designed on open standards based on IEC 60870-5 series and Object Linking and Embedding for process control (OPC) standards.	We would like to clarify that GE DCS solution communicate over EtherNet/IP protocol which is the Common Industrial Protocol (CIP) implemented over standard Ethernet. For Remote monitoring to SLDC(Load dispatch center)/Corporate Office , IEC60870-5-104 protocol shall be used at supervisory level through separate gateway station and through DMZ/Firewall network.	Comply as per tender document specification. No change.
76	Page No. 143 1.2.1 Layout and General Arrangement	The control system shall have provision to provide plant control and monitoring capability and furnish data to the ERP/external system for execution of applications such as ABT, Condition Monitoring (CM) and centralised analysis.	OPC functionality is considered in bidders scope for third party communication. However , if any specific requirement to establish the communication with the ERP/external system , please share us the input to consider the BOQ accordingly.	Comply as per tender documents.
77	Teesta-V Power Station Bid Document Page-144	1.2.2 Networking and communications Process control networks shall be separated from Power House LAN by suitable hardware firewalls to restrict access to the control system.	We would like to clarify that, it's not advisable & recommended to integrate the Owner's office network (Powerhouse LAN) with plant's control room network due to cybersecurity concerns. Kindly review & confirm.	Comply as per tender document specification. No change.
78	CI-1.2.1/ Specific Parameters and Layout Conditions, Page 143,144	Layout and General Arrangement. • The control system shall have provision to provide plant control and monitoring capability and furnish data to the ERP/external system for execution of applications such as ABT, Condition Monitoring (CM)and centralized analysis.	Please refer Our Clarification Point-54.	Clarified at SI. No. 54.

SL N.	Tender Reference	Tender Description	Pre-Bid query (Technical) received	Reply of NHPC LTD.
79	1.2.2 Networking and communications Section 8, Scope of Work Page 144	1.2.2 Networking and communications All the optical fibre cabling within the power house shall be armoured type suitable for laying directly on the cable trays. All redundant cables shall be physically routed along different paths so as to ensure higher availabilities. The networks shall be designed for 1Gbps, real time and full duplex (bi-directional) communications New optical fibre cable shall be provided by the bidders. The bidder has to replace the existing hubs and switches with new ones	Please elaborate the detailed scope of Optical fiber cables for interfacing of different remote locations with plant SCADA system. Kindly specify the followings- 1)Scope of Optical fiber cable in detail between Powerhouse and other remote locations i.e outside power house specifying the distances and all details. 2)Type of Fiber Optic Cable required between various locations e.g. ADSS type that need to be considered in scope. 3)Scope of Laying and installation, laying length. Also specify if the laying will be underground or overhead. 4)Number of Fiber cores/modes required at different locations. 5)If redundant cores of the same cable can be used for communication. Please accept the same.	The number of cores and sizes of the cables required for various circuits from panel to panel shall be worked out during detailed engineering as per clause No. 1.3.8 of Section-VIII "Scope of Work". The layout drawing and other details may be collected during site visit.
80	1.2.5 Laying of Optical fibre cable Section 8, Scope of Work Page 146	1.2.5 Laying of Optical fibre cable New cable laying is required to complete the system up-gradation, all necessary works including supply & laying of optical fibre cable along with fibre splicing/terminations at both the ends of each OFC and site acceptance testing thereof shall be in the scope of Contractor.	We understand that optical fiber specified in the clause is related to control and monitoring purpose only. Please note that we can provide optical fiber cable as per distance requirement and necessary accessories in our scope. For External FO, if any route survey, clearance (if any), excavation, installation of HDPE, pipes, poles (if any), civil work, laying, erection of work required shall be in scope of NHPC only.	
81	CL-1.2.4/ Redundancy, Page 145, 146	<ul style="list-style-type: none"> The unit shut down system shall include emergency shut down system implemented by hard wired logic. The database storage system shall be redundant and implemented through. 	<p>1. Bidder understands that the existing hardwired logic system for emergency shut down system will be retained and not in Bidder's scope. Please confirm.</p> <p>2. Historian data storage will be implemented in single workstation with RAID-5 configuration.</p>	<p>1. Confirmed.</p> <p>2. Historian data storage should be in 02 Nos. OWS as a redundant. Historical data can be accessed from any of the three OWS using the respective Historian Client / Server Software.</p>
82	1.2.6 Laying of Control and instrumentation Cables Section 8, Scope of Work Page 146	1.2.6 Laying of Control and instrumentation Cables Existing control and instrumentation cables shall be retained and used for upgraded SCADA system. In case of new cable laying is required for the integration of the complete instrumentation, control and protection systems in the Power House shall be in scope of the supplier. It shall be laid on cable trays via routes which shall be finalised during detail engineering. Any additional Cable trays for carrying the cables shall be deemed to be included in the scope of this contract. The cable trays shall be galvanised, of covered perforated type and conforming to relevant IS All necessary works for laying the cables and terminations at the respective panels and site acceptance testing shall be in the scope of Contractor.	Kindly clarify the scope of cable that need to be considered with length and type if any foreseen.	This shall be worked out during detailed engineering.
83	Teesta-V Power Station Bid Document Page-148	1.3.5 DCS controllers for LCBs and UCBs The controller switchover shall be within 10ms.	We would like to clarify that, the controllers in GE's SmartControl network will incorporate a switchover mechanism of 20ms. However, the controlled process functioning will be bumpless with no perceivable impact of the controller switchover. Kindly review and confirm.	Comply as per tender document specification. No change.

SL N.	Tender Reference	Tender Description	Pre-Bid query (Technical) received	Reply of NHPC LTD.
84	Teesta-V Power Station Bid Document Page-148	1.3.5 DCS controllers for LCBs and UCBs -The I/O module should be hot swappable.	We do not recommend online modules (I/O) replacement as it can affect the life of the module. However, the modules used in our SmartControl solution are very rugged & used in many hydro power plants as well as other process applications / industries. Comprehensive diagnostics and configurable features make these modules easy to create a more efficient, nimble and productive plants. Kindly review and confirm.	Comply as per tender document specification. No change.
85	CI-1.3.5/DCS controllers for LCBs and UCBs/Page 148	From cyber security point of view, controllers shall also be in compliance with IEC 62443/NERC CIP guidelines. • The controller switchover shall be within 10ms. • LCB shall have 40% licensed & configured spare I/O channels for future use by the employer. • the contractor shall provide 20% unused extra channels in each card and additional overall 20% in all types of DI/DO/AI/AO for possibility of future rack expansion.	1. The SCADA/controller will be of Bidder's standard and proven design. 2. This is SCADA upgradation Project with the existing control system logic and interlocks. 40% spare I/O channel for future use is not necessary, since expansion of such large scale is not usually envisaged. We understand that the existing spare channel Qty. in the I/O cards are already considered in the existing IO details ANNEXURE-I of SECTION-VIII.	Comply as per tender document specification. No change.
86	CI-1.3.6/Emergency shut down, Page-148	Emergency shutdown equipment shall be implemented through hardwired logic using Safety Relays (SIL 3, IEC61508).	Bidders understand that the Safety Relays (SIL3, IEC61508) is not applicable for SCADA. Please confirm.	Agreed & Confirmed.
87	Page No. 148 1.3.5 DCS controllers for LCBs and UCBs	Main controller/processor should have the extended capability to manage at least 40% more I/O counts. Each LCB shall have 40% licensed & configured spare I/O channels for future use by the employer.	Spare IO Channels clause provided in page No. 174 and 148 is contradictory. Since, we are retaining the existing panels , provision of having additional 20% spares shall not be viable to accommodate in the existing panel dimension. IO counts shall be offered in line with the existing IO quantity only. Please confirm.	Comply as per tender documents.
88	Page No. 148 1.3.5 DCS controllers for LCBs and UCBs	Each I /O point of the controllers shall be supplied in standard rack mounted I/O modules with plug in boards. Each I/O point shall be furnished with:	As per OEM standard DIN rail mounted IOs shall be supplied . Please confirm.	Comply as per tender documents.
89	Page No. 148 1.3.5 DCS controllers for LCBs and UCBs	In addition to the existing I/Os of the power station, the contractor shall provide 20% unused extra channels in each card and additional overall 20% in all types of DI/DO/AI/AO for possibility of future rack expansion.	Since, we are retaining the existing panels , provision of having additional 20% spares shall not be viable to accommodate in the existing panel dimension. IO counts shall be offered in line with the existing IO quantity only. Please confirm.	Comply as per tender documents.

SL N.	Tender Reference	Tender Description	Pre-Bid query (Technical) received	Reply of NHPC LTD.
90	Page No, 148	In addition to the existing I/Os of the power station, the contractor shall provide 20% unused extra channels in each card and additional overall 20% in all types of DI/DO/AI/AO for possibility of future rack expansion.	20% of wired spares shall be provided in each module . Free rack space to be provided to accommodate 20% of Modules for future expansion to be provided additionally . Please confirm.	Comply as per tender documents.
91	1.3.8 Control and Instrumentation cables Section 8, Scope of Work Page 149	1.3.8 Control and Instrumentation cables The control and instrumentation cables shall be 1100 V and 600V Grade respectively, multi core, FRLS, colour coded/numbered, annealed stranded high conductivity Copper, single conductor, insulated with PVC insulation and PVC sheathed. The outer sheath shall be of specially formulated PVC compound. The copper conductor used shall be electrolytic grade annealed and shall be made of minimum 99.5% pure copper, The conductor having semi-conducting screen shall ensure perfectly smooth profile & avoid concentration of stress.	As understood control and instrument cables need to be retained.No new field cables are foreseen in scope Kindly confirm.	If any additional cable or its accessories required, it is in the scope of contractor.
92	1.4.3 System configuration Section 8, Scope of Work Page 153	The communication between electrical protection system and their respective LCB/UCB shall be based on Modbus protocol. However, there should provision for IEC 61850 for interfacing in future. The communication between governor and their respective UCB shall be based on TC-net. Communication between excitation system and respective UCB shall be modbus. However, there should be provision to interface the excitation system and governor system with its respective UCB on Modbus TCP/IP protocol in future.	Provision to interface over Modbus TCP/IP protocol shall be provided in our system for future integration. For Existing system interface kindly refer comments at s.no. 2,3&4 above.	External OEM support shall be in the scope of the Contractor as per Tender condition.
93	Page No, 154 1.4.4.1 Layout	High quality plotter along with accessories	Plotter is not included in the present scope. Please confirm.	Comply as per tender documents.



SL N.	Tender Reference	Tender Description	Pre-Bid query (Technical) received	Reply of NHPC LTD.
94	Section 8, Scope of Work 1.4.4.3 Operator workstations Page 156	1.4.4.3 Operator workstations In the control room three operator workstations with desks shall be provided. Each operator desk shall be equipped with two (2) VDUs, sealed membrane covered keyboard and pointing device such as mouse / trackball, integrated telephone set, microphone, writing pad and workplace integrated.	Kindly clarify the scope of VDU's for each Operator workstation as understood 2 No.s VDU's for each Operator workstation need to be considered. For rest workstation 1no. VDU shall be provided.	Required 2 Nos VDU for each workstation.
95		The configuration of each workstation shall be: Three (3) VDUs each of at least 26", LED backlit flat screen and flicker-free,		
96	Teesta-V Power Station Bid Document Page-140/Page-156	1.1.2 Central Control Centre -Three (3) Operator Workstations each with three sets of dual redundant LED backlit monitors and all necessary accessories and software. 1.4.4.3 Operator workstations The configuration of each workstation shall be: -Three (3) VDUs each of at least 26", LED backlit flat screen and flicker-free,	We would like to clarify that there is mismatch in the technical specification and existing architecture drawing regarding the number of LED/VDUs. We are considering two number of VDUs(27") for each operator Workstation as per the existing architecture drawing. Please review and confirm.	Necessary Corrigendum has been made.
97	Teesta-V Power Station Bid Document Page-129/Page-158	2. The communication of the Governor system is being made through Device-Net protocol. The Integration of Governor system shall be in the scope of contractor. 1.4.5 Unit Control Boards (UCB) -The governor and excitation system (already available) and protection relays (Existing) shall be integrated with Unit Control Board. The communication between governor and their respective UCB shall be based on TC-net.	We would like to clarify that, GE SmartControl advanced solution will communicate with existing governing/excitation system on Modbus TCP/IP Protocol. We request to confirm the Modbus TCP/IP Protocol compatibility with existing governing/excitation system. Also necessary technical and interface support for existing (non-GE) governing/excitation/Any-other system shall be arranged by customer if required during execution. Please Confirm.	Comply as per tender document specification. No change.
98	Teesta-V Power Station Bid Document Page-158	1.4.4.6 Simulator and training	We would like to clarify that offered Simulator and stand alone operator training station will be available with annual subscription based License. GE will consider the annual subscription license cost till defect liability period (2 Years), beyond defect liability period owner shall bear the annual subscription license cost if required for further use. Please review and confirm.	Comply as per tender document specification. No change. It should be licensed free.



SL N.	Tender Reference	Tender Description	Pre-Bid query (Technical) received	Reply of NHPC LTD.
99	CI-1.4.5/Unit Control Boards (UCB)/SI no- 19, Page 159	<ul style="list-style-type: none"> Covered push button and necessary controller for unit emergency shutdown. Two emergency push buttons for each unit, one at UCP & one at Control Room and one emergency push button for entire Power Station shutdown at Control Room. Emergency shutdown shall be implemented with hardwired logic using Safety Relays (SIL-3, IEC61508), in addition to the emergency shutdown controller for redundancy. 	1. As control desk is not in the scope of SCADA upgradation, hence push button will not be applicable. 2. Please refer Clarification S.No 34 for Safety relay.	Comply as per tender document specification. No change.
100	Page No. 160 1.4.5.4 Manual control of unit	Unit Control Boards shall be provided with all features, accessories, wiring, indications, and meters that are necessary for manual control of the unit locally through the unit programmable controllers. It shall be possible to operate generator circuit breaker from UCB even when upper control levels are out of order.	NHPC to confirm, does the existing wiring scheme have this provision. If this is available in the existing scheme, same shall be retained. Please confirm.	Confirmed.
101	Page No. 161 1.4.5.7 Generator Step-up Transformers	All Generator step up transformers shall be monitored, controlled and supervised with the electrical system delivered with "Generator Step Up Transformers" for temperature, cooling water system and fire fighting system.	We understand that, all these signals are wired up in the existing system and now same has to be implemented in the proposed DCS System. Please confirm.	Confirmed.
102	CI-1.4.5.9/ Synchronizing equipment / Page 161	Synchronizing facilities shall be provided from control room to allow automatic synchronizing of the units. <ul style="list-style-type: none"> Selector switches off / s / manual / automatic and all necessary instruments for manual synchronizing shall be provided at the Unit Control Boards. 	As per clause 5 in Page 126, The existing Auto/Manual synchronizer shall be retained and not in the scope of Bidder.	Agreed & Confirmed.



SL N.	Tender Reference	Tender Description	Pre-Bid query (Technical) received	Reply of NHPC LTD.
103	1.4.8 Router/Gateway for Remote Monitoring and Operation Section 8, Scope of Work Page 162	1.4.8 Router/Gateway for Remote Monitoring and Operation Provision shall be made to adopt the control system for future remote monitoring, control and operation from a Remote Control Centre. The highest control level shall be the Operator Workstations in the Central Control Room (CCR). From the Operator Workstations of power plant control room, the operator shall be able to perform in real-time, controls and adjustments for all the equipment of the scheme. For the dual OPC communication interface, the contractor DCS end will act as an OPC Server and OPC Gateway will be provided along with L3 networking switch and Firewall which will be the terminal point for the OPC interface to NHPC HQ	Our understanding is that the bidders scope is limited to - Provision of the Router / Gateway station with OPC communication facility at power house side only. Any Lease line/Optical link/Communication Link between Ph and remote end +Any hardware and engineering required at NHPC HQ shall be in NHPC Scope. Kindly confirm the same	Agreed & Confirmed.
104	Teesta-V Power Station Bid Document Page-162	1.4.9 Local control cubicles Separate Local Control Cubicles (LCC) provided for unit auxiliaries, Station services and Common services shall be controlled along with complete sequence interlocks from the LCC itself, corresponding Local Control Board and also from the Central Control Room.	Kindly Provide the detail of existing Local Control Cubicle(LCC) for consideration.	Agreed and will be provided during detailed engineering.
105	Page No, 162 1.4.7	Supply of any other items and any modification required in local control panel for making the system compatible with the SCADA, shall be in the scope of the contractor. This LCB should also for Common & Station Services	Scope of Supply of Service shall be limited to bidder technical offer which shall be submitted in tender . No additional items shall be envisaged in the scope.	Comply as per tender documents.
106	Page No. 162 1.4.9 Local control cubicles	All logics with I/O connections for manual as well as auto operation of the auxiliary are mostly built into Local Control Cubicles, which performs all its functions in auto and manual modes even when corresponding Local Control Board is not functional or even when communication between LCB and LCC is not established. It shall be the responsibility of the contractor to check the system available at site and consider all the changes required and include the same in its costs.	1.Existing wiring scheme shall be retained. No additional field wiring shall be envisaged in the scope. 2. If any specific wiring/ modification is required , kindly share the details as part of the corrigendum.	Comply as per tender documents.



SL N.	Tender Reference	Tender Description	Pre-Bid query (Technical) received	Reply of NHPC LTD.
107	Page No. 164	4.16 Central control room network: The network shall have redundant PC based historical data storage station necessary for automatic backup of online process data. The terminations for the central control room Network (LAN) shall be housed together in a closed unit along with the necessary switches. The routers, serial and digital interfaces of communication network, Ethernet switches etc. should be provided with surge protection devices of suitable rating	1 Set of Surge protector shall be provided for Input Power Supply (SMPS) of the DCS Panel . Since the Power Supply for ethernet switches sourced from this SMPS , no individual Surge Protector shall be supplied . Please confirm.	Comply as per tender documents.
108	1.4.15 Process Control Networks 1.4.16 Central control room network Section 8, Scope of Work Page 164	1.4.15 Process Control Networks 1.4.16 Central control room network The network shall have redundant PC based historical data storage station necessary for automatic backup of online process data	Two (2 No.) of Operator Workstation at Power house control room mentioned at spec clause no. 1.1.2 Central Control Centre , i.e serial no. 5 above shall act as Historian data storage/Historian server for data archiving of main tags at least of six months as per spec clause 1.1.2 Kindly confirm.	Shall be regulated as per Sl. No. 12 & 13 under "Brief Details of Work" clause No. (D) in conjunction with clause No. 1.1.2 of Section-VIII "Scope of Work". Further the servers shall have to be supplied separately. The Network Attach Server(NAS)/ Historian Server with at least six-month Data Storage capacity shall be supplied separately. The other conditions of clause No. 1.1.2 of Section-VIII "Scope of Work" shall have to be complied.
109	1.4.22 Data logger and Data Storage System Section 8, Scope of Work Page 167	1.4.22 Data logger and Data Storage System An on-line Data Storage and Retrieval System shall be provided for the power plant. It shall be located in the Central Control Room area and shall be equipped with		
110	1.1.2 Central Control Centre Section 8, Scope of Work Page 139-140	1.1.2 Central Control Centre Network Attach Server(NAS)/ Historian Server with at least six-month Data Storage capacity.		
111	Page No. 165	1.4.17 Plant Control Network: The two Servers shall be used. Latest Windows based Network Operating System shall be pre loaded on these servers. The two server s shall be preloaded with latest Developer version of Microsoft Office suite along with any other application software required for performing their intended functions.	We understand that , only 1 set of Redundant Server shall be supplied as part of the tender . Please confirm.	Comply as per tender documents.
112	Teesta-V Power Station Bid Document Page-166	Each raised alarm shall be provided with a suggestive course of action associated with its alarm display window to aid the operator in quick assessment of the fault.	We will provide alarms with built-in advance alarm features i.e. Alarm priority, shelving, alarm identification in bidder's SCADA software. So, separate audio visual alarm system is not proposed.	Comply as per tender document specification. No change.

SL N.	Tender Reference	Tender Description	Pre-Bid query (Technical) received	Reply of NHPC LTD.
113	Teesta-V Power Station Bid Document Page-167	1.4.22 Data logger and Data Storage System i) The information stored by these storage appliances shall be available on-line with automatic "hot" backup of on-line data and ready to be shared by clients and servers on the Central Control Room Network and Power house LAN. This centralized data storage system shall use fast read / write optical backup medium ii) One dedicated Relational Database Management System based on latest available version of ORACLE RDBMS database software, with necessary network user licenses covering all the workstations and computers shall be provided.	We would like to clarify that i) it's not advisable & recommended to integrate the Owner's office network (Powerhouse LAN) with plant's control room network due to cybersecurity concerns. Hence the storage system shall be proposed to exchange the information within Control system network.. ii) Proposed historian station shall use built-in SQL (DBMS)Data base which will be accessed by the client/Server connected within Control system network. Hence separate oracle based RDBMS is not required and hence for offered control system.	Comply as per tender document specification. No change.
114	Page No. 167	Data logger and Data Storage System	We understand that , apart from History Server , one no of Network Attached Storage Device to be supplied . Please confirm.	Comply as per tender documents.
115	Page No. 167 1.4.22 Communication interfacing	One dedicated Relational Database Management System based on latest available version of ORACLE RDBMS database software, with necessary network user licenses covering all the workstations and computers shall be provided.	As per OEM standard , SQL database shall be offered as part of History storage.	Comply as per tender documents.
116		PC & Server Quantity	Please confirm , Quantity of Server/PCs provided in BOQ in Page No. 132 is final and other PC/Servers shall be supplied. Please confirm.	Comply as per tender documents.
117	Page No. 167	One dedicated Relational Database Management System based on latest available version of ORACLE RDBMS database software, with necessary network user licenses covering all the workstations and computers shall be provided.	As per OEM standard , SQL database shall be offered as part of History storage.	Comply as per tender documents.
118	CI-1.4.22/Data logger and Data Storage System /Page 167	One dedicated Relational Database Management System based on latest available version of ORACLE RDBMS database software, with necessary network user licenses covering all the workstations and computers shall be provided.	1. Bidder understands the Data logger and Historian data storage are same. Please confirm. 2. Bidder will supply their standard Historian Data storage system. ORACLE RDBMS is not applicable.	Comply as per tender document specification. No change.
119	CI-1.6/Spare Parts/SI No-10	HMI -2no.	Bidder requests NHPC to confirm which HMI spare is required. Is it for 12" size panel mounted HMI?	Spare provide as per SI. No. 20.
120	CI-1.7.1/Special Tools	Special Tools	Bidder understands that the mentioned special tools are for Contractor's works at site only in returnable basis. Please confirm.	As per clause No. 1.7.1 under "Scope of Work" the tools shall be submitted for acceptance by the Employer.

SL N.	Tender Reference	Tender Description	Pre-Bid query (Technical) received	Reply of NHPC LTD.
121	Page No. 169 1.7.1 Special tools	1.7.1 Special tools: One (1) set of optical time domain reflectometer, iii. One (1) no. of fusion splicing equipment with accessories iv. One (1) Optical Power Meter.	Please provide the clear specification and approved makes for this special tools.	Will be provided during detailed engineering after award of Contract.
122	Page No. 169 1.7 Tools & Instruments	The Contractor shall supply all necessary tools and instruments etc. for installation, repair and maintenance.	No Special tools shall be required for installation, repair and maintenance. Hence, no Tools shall be supplied by bidder.	Comply as per tender documents.
123	CI-3.0 /Automatic Generation Control (AGC), Page 170	The DCS shall have sufficient AI/AO/DI/DO to cater with AGC requirement.	Bidder understands that the existing control logic and interlocks will be implemented and the number of I/O signals to be considered in DCS as provided by NHPC. Please confirm.	Agreed & Confirmed.
124	Page No. 170 3.0 Automatic Generation Control (AGC)	The DCS shall have sufficient AI/AO/DI/DO to cater with AGC requirement. However, existing logic of AGC system shall be integrated during SCADA upgradation work.	Any modification in existing AGC Controls system shall not be envisaged in this contract. NHPC to provide the OEM support during commissioning time for such interface.	Comply as per tender documents.
125	Page No. 170 3.0 Automatic Generation Control (AGC)	The DCS shall have sufficient AI/AO/DI/DO to cater with AGC requirement. However, existing logic of AGC system shall be integrated during SCADA upgradation work.	Please confirm, whether the IOs provided in Page NO. 174 is included with AGC IO counts or additional IO counts to be considered . Please confirm.	Comply as per tender documents.
126	Page No. 170 Guaranteed technical Particulars	2.4 Availability of expert for One year from the date of commissioning of last unit	We understand that, 1 engineer capable of trouble shooting the Proposed DCS System shall be deputed in Plant for general Shift (9 .00 AM to 6.00 PM) for 1 year from the date of commissioning of Unit. Please confirm.	Comply as per tender documents.
127	Teesta-V Power Station Bid Document Page-170	2.0 Cyber Security vi. The software developer/integrator shall consider the minimum features of Malware Protection, Security patch development and backup management. A centralized patch management shall be there for running patches automatically or manually, reporting & scanning of installed patches on a certain group of servers/stations, downloading the patches.	We would like to clarify that, vi. GE shall ensure the latest patches delivered after successful completion of FAT/SAT/handling over of the system as per the GE product Policy. Separate Annual Maintenance Contract shall be considered to cover the patching activities after completion of defect liability period.	Comply as per tender document specification. No change.
128	Page No. 171	Overall control and monitoring system availability for top order event " Availability to retrieve all processed data from LCBs and operate all breakers" -> 99.98	Please explain the requirement.	Comply as per tender documents.
129	Page No. 171	Overall control and monitoring system availability for top order event " Availability to retrieve all processed data from LCBs and operate all breakers" -> 99.98	Duration of Availability	Comply as per tender documents.



SL N.	Tender Reference	Tender Description	Pre-Bid query (Technical) received	Reply of NHPC LTD.
130	Guaranteed technical Particulars/CI-2.2, Page 171	Overall control and monitoring system availability for top order event " Availability to retrieve all processed data from LCBs and operate all breakers" \geq 99.98	The SCADA system availability will be 99.7% as per Industry practice	Comply as per tender document specification. No change.
131	Guaranteed technical Particulars/CI-2.3, Page 171	Availability data channel for real time, full duplex transmission @ 1 Gbps between two remote stations \geq 99.99	This clause is not clear. Pls. clarify the requirement.	Comply as per tender document specification. No change.
132	Guaranteed technical Particulars/CI-3.3.2, Page 172	Type of cable used DWDM (min. 12 cores)	Please note that type of Optical Fiber (FO) cable and number of core in FO cable will be as per Bidder's system requirement only. We will provide 100% spare core in each FO cable.	Comply as per tender document specification. No change.
133	Guaranteed technical Particulars/CI-3.5, Page 172	Method of clock synchronization with GPS clock reference IRIG-B / PPM/ PPS/IRIG-E/ SNTP etc.	Bidder requests NHPC to provide number of Master Clock sync signals and quantity for their use. Master clock time sync signal ports will be considered based on Bidder's requirement and NHPC requirement. Cables from Master clock time sync output port to respective equipment of NHPC will be by NHPC. Please confirm.	Agreed to provide the these data.
134	Page No. 172 Guaranteed technical Particulars	2.10 The control system shall have physical & functional or operational redundancies	Redundancy shall be provided at Controller level , Controller to IO Communication , Power Supply for DCS, Communication from Controller to Server only. Redundancy in IO level is not envisaged. Please confirm.	Confirmed.
135	Page No. 172 Guaranteed technical Particulars	2.11 All necessary works including supply / laying of OFC & fibre splicing/ terminations at the GIS/ Transformer Cavern/ PH control room/ Dam control room/ route survey are included.	Laying of FO Cables in side the Power House shall be in the scope of Bidder. However, laying of FO cables required for Dam to Control room communication shall not be in the scope of bidder.Please confirm.	Confirmed.
136	Page No. 173 Guaranteed technical Particulars	Protection class of UCB/LCB panel enclosures (IP class) - IP 66	As per the contract, we have to retain the existing panels. Hence , the IP rating of existing panels shall remain same. Please confirm.	Confirmed.
137	Teesta-V Power Station Bid Document Page-174	Digital Input : 64 channel on each card Digital Output : 64 channel on each card Analog Input : 08 channel on each card RTD : 08 channel on each card Analog Output Card : 16 channel on each card Remarks: In addition the existing I/Os of the power station, the contractor shall provide 20% unused extra channels in each card and additional overall 20% in all types of DI/DO/AI/AO for possibility of future rack expansion.	We would like to clarify that the offered DCS system shall have following channel density at each input/output card. Digital Input : 8/16 Channel/Card Digital Output : 8 Channel/Card Analog Input : 8 Channel/Card Analog Output: 4 Channel/Card RTD Input : 2 Channel/Card In line with above, We like to propose 20% spare unused channels on overall used I/O counts for each type of input/output.. Please review and confirm.	Comply as per tender document specification. No change. It should be licensed free.
138	Page No. 174	ANNEXURE-I of SECTION-VIII: In addition the existing I/Os of the power station, the contractor shall provide 20% unused extra channels in each card and additional overall 20% in all types of DI/DO/AI/AO for possibility of future rack expansion	Since, we are retaining the existing panels , provision of having additional 20% spares shall not be viable to accommodate in the existing panel dimension. IO counts shall be offered in line with the existing IO quantity only. Please confirm.	Comply as per tender documents.
139	Page No. 174	ML (Modbus communication card) i. Governor (Device Net Protocol is used) ii. Excitation iii. MW/MVAR Transducer iv. SOE	As per OEM standard, no individual MODBUS Card shall be provided. All the MODBUS signals shall be connected at HMI Level. Please confirm.	Comply as per tender documents.
140	Page No. 174	Analog Output Card (Not included in Existing scheme)	Please provide the quantity of cables to be considered for the field wiring of these Analog Modules.	As per site requirement