

EPC Package for Andaman & Nicobar Gas Power Project (50 MW)
Pre-Bid Clarifications

SL. NO.	ENQUIRY SPECIFICATION				SPECIFICATION REQUIREMENT	COMMENTS / CLARIFICATIONS	Owner's Reply
	SEC/PART	SUB SEC.	PAGE NO.	CLAUSE NO.			
1.	General				De-Salination plant	Owner is requested to provide the P&ID for Desalination Plant as well as Effluent Treatment Plant.	Schematic shall be decided during detail engineering as per proven practice of system supplier meeting tech spec requirements as a minimum.
2.	General				Pre-treatment Plant	Since the tender does not specify any facility / scheme for Pre-treatment Plant, Owner is requested to furnish the same.	Please refer Tech Specifications Clause No. 4.01.00 (Page No 2 of 8 of Chapter-M3, Volume-I, Part-B, Section VI) which states that "The Desalination Plant shall be skid mounted. Capacity of UF+RO skid shall be 2X100%. The desalination plant shall consist of Pre-treatment facilities, Ultra filtration, Reverse osmosis (RO) and a Post-treatment facilities (as required)". Further, schematic shall be decided during detail engineering as per proven practice of system supplier meeting tech spec requirements as a minimum.
3.	VI/B	Vol I M3	8/8	11.03.00	Valves Type and material of construction of valves in RO skid shall be as per Manufacturer's standard practice.	Owner to provide the material for other applications apart from RO skid.	As per manufacturer proven practice. However, the same shall be compatible with the respective water/chemical etc. Bidder to also refer amendment.

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7.	VI/A	Vol III	5/69	11.00.00	11.00.00 WATER SYSTEM	Bidder requests owner to provide pipe corridor of sea water intake piping and also confirm whether it is above ground or below ground.	No separate corridor is identified for sea water intake pipes. Further, details shall be decided during detail engineering.
8.	VI/A	Vol III	28/69	26	TERMINAL POINTS : Fuel : Tap-off from gas supplier within plant premises. Exact location of tap-off point shall be informed during detailed Engineering. Bidder to connect gas supply line with incoming gas lines inside the plant boundary at terminal point of gas.	Bidder requests owner to provide the tentative location of tap-off point within the plant premises at bidding stage itself.	Layout and tap off point will be finalized during detail engineering. Bidder to comply specification requirement.
9.	VI/B	Vol II E1 Vol II E13	2/26	1.01.00	Service Transformers 33/0.433kV Dyn11 Auxiliary Transformers (including LT Outdoor) ii) Voltage Ratio (KV) : 11/0.433 kV	Bidder understands that Voltage Ratio (KV) : 11/0.433 kV in Clause 1.01.00 of Chapter II-E13 needs to be read as "33/0.433kV" as mentioned in SLD. In such case, Owner may please issue amendment for correct parameters of winding, bushing, CT, etc corresponding to 33/0.433kV Auxiliary Transformers.	Bidder to refer amendment in this regards.
10.	VI/B	Vol II E1	-	-	General Notes 3: Standard LT transformer ratings with their impedances are as follows 2.0 / 1.6 / 1.0 / 0.63 MVA	Bidder requests Owner to accept LT transformers of rating 2.5,1.25, 0.75, 0.5 & 0.315 MVA in addition to the range mentioned in the referred clause.	Bidder to comply with specification requirement.

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11.	VI/B	Vol II E1	5/9	2.06.00	Grounding and lightning protection for the entire plant areas or buildings covered in the specification shall be provided in accordance with IS 3043, IS 2309, IEEE 80 and IEEE 665.	Lightning Protection design – IS 2309 mentioned in the specification stands withdrawn. Bidder will need to design Lightning Protection system based on IEC 62305 – 2010. Owner may please review and confirm.	Bidder understanding is clear. Lightning Protection system shall be designed based on IEC 62305.
12.	VI/B	Vol II E5	4/7	2.11.00	All LT power cables of sizes more than 120 sq.mm. shall be XLPE insulated and sizes shall be of 1Cx150, 1Cx300, 1Cx630, 3Cx150 & 3Cx240 sq.mm. However for cable sizes upto 120 sq.mm. both XLPE insulated & PVC insulated LT power cables are acceptable.	Owner is requested to allow for following additional cable sizes above 240 sq.mm. 1) 3CX185 Sqmm 2) 3CX300 Sqmm 3) 3.5/3Cx400 sq.mm	Bidder to comply Technical specification.
13.	VI/B	Vol V	2/12		The bidder has to install the solar PV rooftop system on the buildings in this package on the basis of 15 square metre area (shadow free) per kwp and the bidder shall also consider utilizing all the rooftops(Buildings) for installing solar PV project. The final plant capacity shall be as per detailed approved engineering design of each of the buildings rooftops.	Owner may please specify minimum total KW rating of roof top solar plant system for bid purpose. Any change in kw rating shall be dealt through per kw rate for addition/deletion at later stage.	From our past experiences, NTPC is not mentioning the minimum capacity for solar PV rooftop. The same will be decided during detailed engineering stage. Bidder to comply with specifications.

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14.	VI/B	Vol III	4/52	202.05 (e)	Monitor sensor wire break/open circuit/short circuit and take suitable actions in logic/loop. (This will include blocking of trip signals in case of RTD failure).	Please note that the features like Monitor Sensor wire break/open circuit/ short circuit shall be as per PLC manufacturer's standard.	Bidder to comply the specification requirement.
15.	VI/B	Vol III	12/52	4.01.00 (12)	For Hot extractive sampling type and Dilution extractive sampling type system – The components involved in sample handling system shall be imported & further, Sample handling system design shall be vetted by Original Analyzer Manufacturer (OAM). Necessary documents shall be furnished during detailed engineering in order to establish the above requirement. Technical expert of OAM shall witness testing of sample handling system and validate it. Alternatively sampling handling system assembled at Original Analyzer manufacturer (OAM) works shall also be accepted.	Please note that sample handling system shall be sourced from approved local sub vendors of original analyzer manufacturer (OAM).	Bidder to refer Amendment in this regard
16.	VI/B	Vol III			AAQMS	Owner to kindly provide the contract quantities for AAQMS System.	Bidder to refer Amendment in this regard.

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17.	VI/B	Vol I M5	11/12	15.01.00 (d)	Relative humidity and temperature measurement of all control rooms and CERs, and all major air-conditioned areas shall be available in DDCMIS.	Bidder understands that the referred clause shall be read as follows : Relative humidity and temperature measurement of all control rooms and CERs, and all major air-conditioned areas shall be available in DDCMIS/PLC. Please confirm.	Bidder's understanding is correct.
18.	VI/B	Vol II E2	3/5	4.00.00 (2c)	Interface: All the above temperature measurement devices shall be connected to DDCMIS.	Bidder understands that the referred clause shall be read as follows : Interface: All the above temperature measurement devices shall be connected to DDCMIS/PLC. Please confirm.	Bidder's understanding is correct.

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19.	VI/B	Vol III	12/52	4.01.00 (8)	i) All interconnection tubing and cabling between probe and analyser / analyser panel and cabling from analyser/ analyser panel to DCS (in respective unit control room) are to be provided by Contractor.	Bidder understands that the referred clause shall be read as follows : All interconnection tubing and cabling between probe and analyser / analyser panel and cabling from analyser/ analyser panel to DCS/PLC (in respective unit control room) are to be provided by Contractor Please confirm.	Bidder's understanding is correct.
20.	VI/B	Vol III	17/52	4.05.00	Further, additional 4-20 ma signal for stack temperature through temperature transmitter shall be provided and connected to DDCMIS.	Bidder understands that the referred clause shall be read as follows : Further, additional 4-20 ma signal for stack temperature through temperature transmitter shall be provided and connected to DDCMIS/PLC. Please confirm.	Bidder's understanding is correct.

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21.	VI/B	Vol III	18/52	4.07.00	All the accessories and cables required for connecting Analysers outputs to DCS and provision of bidirectional communication as defined above shall be provided by Contractor on as required basis.	Bidder understands that the referred clause shall be read as follows : All the accessories and cables required for connecting Analysers outputs to DCS/PLC and provision of bidirectional communication as defined above shall be provided by Contractor on as required basis.. Please confirm.	Bidder's understanding is correct.
22.	VI/B	Vol IV	17/37	6.08.00	RCC Retaining wall (sea wall) up to formation level along the sea side to be provided for protection from high tide of minimum M35 grade concrete.	Bidder requests Owner to provide cross sectional details of retaining wall to be provided along with height details.	Design of RCC Retaining wall & its foundation shall be in scope of bidder as mentioned in cl.no. 6.08.00. Height of the wall shall be from existing ground to proposed FGL and above that FGL, boundary wall of 3.0m height as cl. no. 7.05.00 of part-B section VI civil chapter. Section detailed of retaining wall shall be as per design requirement and in the design bidder scope.
23.	VI/B	Vol IV	17/37	7.03.00	Permanent store shall be of suitable size to store all mandatory spares and this will be of mixed construction with structural steel roof truss/purlins supported over RCC columns.	Bidder requests Owner to provide size of permanent store.	Permanent store shall be of suitable size to store all mandatory spares. However, size should not be less than 50 sqm.

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24.	VI/B	Vol IV	17/37	7.02.00	A new fire station building of suitable size shall be provided to house all equipment of fire station, fire rest room with toilet, small office.	Bidder requests Owner to provide size of fire station building.	A new fire station building of suitable size shall be provided to house all equipment of fire station, fire rest room with toilet, small office.
25.	VI/B	Vol IV	16/37	6.01.00	Earth to be used for filling purpose shall be sand or other inorganic materials and they shall be clean and free from shingle, salts, organic, large roots and excessive amount of sod, lumps, concrete or any other foreign substances.	There is contradiction regarding filling material. i.e. Sand or Borrowed earth. Please clarify.	There is no contradiction. Bidder is requested adhere to specification of contract. Either of sand or borrowed earth may be used.
			17/37	6.05.00	The specified formation level(s) shall be achieved either by excavation where the existing ground levels are higher than the specified formation level or by raising by controlled filling with borrowed earth where the existing ground levels are lower than the specified level with slope protection and retaining wall wherever required as shown in tender drawing.		
26.	General				Land for labour colony	Bidder understands that land for labour colony shall be arranged by Owner near to plant boundary. Please confirm.	Bidder is requested adhere to specification of contract. PI refer cl no. 22.01.00 of part A, volume III.

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27.	General				Land for laydown	Very small area is allocated for laydown and pre-assembly. Bidder understands that additional land if required for laydown, office, fabrication yard, stores, batching plant etc. shall be arranged by Owner near to plant boundary. Please confirm.	Bidder is requested adhere to specification of contract. PI refer cl no. 22.01.00 of part A, volume III and General layout plan.
28.	General				Land for disposal of excess material.	Bidder understands that land for disposal of excess excavated material shall be arranged by Owner within 5kms of plant boundary. Please confirm.	Land for disposal of excess excavated material shall be arranged by bidder.

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29.	VI/B	Vol IV	34/37	19.01.00	Cement Fly ash based portland pozzolana cement conforming to IS:1489 (Part-1) shall be used for all areas other than for the critical structures identified below. However, Engineer may allow the use of other types of cement namely, ordinary portland cement & portland slag cement conforming to IS: 269 and IS: 455 respectively under special circumstances on specific request of the bidder and prior approval of the Engineer. Minimum grade of cement shall be Grade 33. Higher grade of portland ordinary cement namely Grade 43 and Grade 53 conforming to IS:8112 and IS:12269 respectively can also be used for specific application. However the ordinary portland cement shall necessarily be used for following structures.	Bidder requests following: 1. "Fly ash based portland pozzolana cement conforming to IS:1489 (Part-1) shall be used for all areas other than for the critical structures identified below." - Kindly provide list as same is missing. 2. "However the ordinary portland cement shall necessarily be used for following structures." - Kindly provide list as same is missing.	Please refer amendment
30.	VI/B	Vol IV				There are no civil spec for desalination plant, water treatment plant mentioned in tender document. Owner is requested to provide the same.	PI refer cl no. 3.03.00 of chapter IVD, part B, volume IV.

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31.	VI/B	Vol IV				a) There are no civil spec for sea water intake system mentioned in tender document. Owner is requested to provide the same. b) Owner to furnish schematic drawing of sea water pump house. c) Owner to mark the location of sea water intake pump house in the GLP with GPS coordinates.	a) PI refer cl no. 3.03.00 of chapter IVD, part B, volume IV b) There is no schematic drawing of sea water pump house needed. Bidder to design as per system requirement. c) Location of sea water intake shall be near Jetty (Jetty location shown in General layout plan).
32.	VI/B	Vol IV				a) There are no spec for Rain water harvesting tank. b) Sizing criteria for the rain water harvesting tank to be furnished.	a) PI refer cl no. 3.03.00 of chapter IVD, part B, volume IV. b) Minimum 300 Cum capacity Rain water harvesting tank shall be provided refer... cl 19.02.23 of Part A section VI volume III .
33.	VI/B	Vol IV				There are no civil spec for ETP system mentioned in tender document. Owner is requested to provide the same.	PI refer cl no. 3.03.00 of chapter IVD, part B, volume IV.
34.	VI/B	Vol IV	GLP		Formation level for the project is (+) RL 6.5 m	Instead of common formation level for the entire plant, Bidder understands that terrace grading with different formation levels may be adopted in order to optimize cutting and filling quantity. Please confirm.	Bidder is requested to adhere provision of specification

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35.	VI/B	Vol IV	GLP			Guard wall shown in the GLP is excluded from Bidder's scope of work. Please confirm.	Guard wall shown (black coloured) in the GLP is excluded from Bidder's scope of work.
36.	VI/B	Vol IV	GLP			Patrol road shall be provided inside the boundary wall. No Patrol road is envisaged outside plant boundary wall. Please confirm.	Confirmed.
37.	VI/A	Vol VII	18/46	36.05.00 (m)	m) Compliance to all environment and other conditions stipulated by the concerned statutory authorities while according clearance / NOC (No objection certificate) to the project.	Bidder's understanding is that the compliance is limited to construction works related only.	Compliance to all environment and other conditions stipulated by the concerned statutory authorities while according clearance / NOC (No objection certificate) to the project including construction work, transportation, sanitation, water supply etc.
38.	VI/A	Vol VII	18/46	36.05.00 Last Para	In case the progress on site management plan is unsatisfactory, Employer may withhold up to 1% of the monthly running bill (for civil and site erection works) till such time the required progress is demonstrated. Incase in the opinion of Employer, bidder's actions on site management aspects is not adequate, Employer may get the relevant work executed through a separate agency and deduct the expenses incurred from Bidder's bill along with overheads @10 %.	Since the project location in Island area and having extended monsoon seasons this clause is not acceptable to us. We request NNVN to delete the monthly running bill withholding clause for progress delays.	Bidder to comply specification requirement.

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39.	V	SCC	3/12	5	The Guarantee test of the Facilities shall be successfully completed within 18 months from the date of completion of the respective facilities. CONDUCTANCE OF PERFORMANCE / ACCEPTANCE TESTS Functional Guarantees/Demonstration shall be conducted at Site by the Contractor in presence of the Employer/Client. The contractor's Commissioning and start-up Engineer shall make the unit ready to conduct such test before start of initial operation. Such test shall be conducted along with the Initial Operations.	There is discrepancy between 2 clauses related to conductance of PG test. Bidder requests owner to clarify which clause to be referred for conductance of PG test.	There is no discrepancy in the bidding documents. The guarantee test of Facilities shall be conducted along with Initial operation. However it shall be successfully completed within 18 months from the date of completion of respective facilities.
40.	VI/B	Vol IV	GLP			Approach road and drain upto plant main gate are excluded from Bidder's scope of work. Please confirm.	Approach Road and drain is available up to the project site. Bidder to use the existing sea route and road infrastructure for transporting machineries and materials. Further the bidder may refer clause 52.02.00 (h) of Volume VII, Part A of Section VI of IFB.
41.	VI/A	Vol VII	8/46	18.01.00	ACCESS TO SITE AND WORKS ON SITE; Suitable access to site and permission to work at the Site shall be accorded to the Contractor by the Employer in reasonable time.	Access to project from NH to be provided by employer from start of contract to end of our contract.	Bidder may please refer clause 10.2 of GCC (Section IV of IFB)

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42.	VI/A	Vol VII	16/46	36.05.00 (a)	Bidder shall ensure that the plant site within the plant boundary is managed in a coordinated and professional way all through the construction phase till handing over of plant, ensuring safe, easy & unhindered working conditions and a healthy & hygienic working environment at site. He shall ensure the following measures at site while executing the project. a) Unhindered motorable road access to all work areas and facilities both during the construction/erection and as they get completed progressively. Required temporary access roads other than the permanent roads shall also be provided.....	Bidder understands that, motorable access road outside the plant boundary to ply heavy vehicles up-to site from nearest national highway shall be made ready by NVVN before commencement of work.	Approach Road is available up to the project site. Bidder to use the existing sea route and road infrastructure for transporting machineries and materials. Further the bidder may refer clause 52.02.00 (h) of Volume VII, Part A of Section VI of IFB.
43.	VI/A	Vol VII	16/46	36.05.00 (a)	 Adequate onsite stock of road materials shall be kept and maintained disturbed over the site for repairs especially before the monsoon period.	Noted. However bidder shall not be responsible for any unwilful damage due to regular plying of heavy vehicles upto the plant boundary (i.e from port to site outside plant boundary).	Approach Road is available up to the project site. Bidder to use the existing sea route and road infrastructure for transporting machineries and materials. Further the bidder may refer clause 52.02.00 (h) of Volume VII, Part A of Section VI of IFB.

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44.	VI/A	Vol VII	18/46	36.05.00 (o)	o) Provision of adequate shelters, water supply, sanitation and lighting in construction workers and staff camps. No camps for workers and staff shall be permitted within the plant premises and Bidder shall make separate arrangement outside the plant premises for locating and development of camps for construction workers and staff. The designated areas shall be suitably developed with infrastructure like roads, drains, water supply and sewerage and shall be free from water logging. Suitable low cost shelters will be provided for the workers. Complete area shall be secured by fencing and shall be provided adequate area lighting. Suitable waste disposal, shopping and recreation facilities will be developed in these camps.	Bidder request NVVN to provide the designated area at free of cost at outside the plant boundary for bidders workmen and staff accommodation.	Provisions of Bid Document and its amendments shall prevail.
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45.	VII/A	Vol VII	15/46	35.01.00	All the equipments furnished under the Contract and arriving at Site shall be promptly received, unloaded and transported and stored in the storage spaces by the Contractor.	Bidder requesting the followings. 1) Incase bidder needs to transport materials from Port-blair to site via water way, necessary approvals from concern authorities shall be arranged by NVVN. However leg work shall be done by bidder. 2) Considering the logistics constraints with the main land, bidder needs to opt for ordering of bulk quantities for all materials (construction and as well as plant materials). Hence bidder request's NVVN to arrange sufficient storage space at site.	1)The requisite approval shall be arranged by bidder. The bidder may refer clause 52.02.00 (h) of Volume VII, Part A of Section VI of IFB. NVVN shall provide only 02 acres of land as project site. The Bidder shall plan logistics accordingly.
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