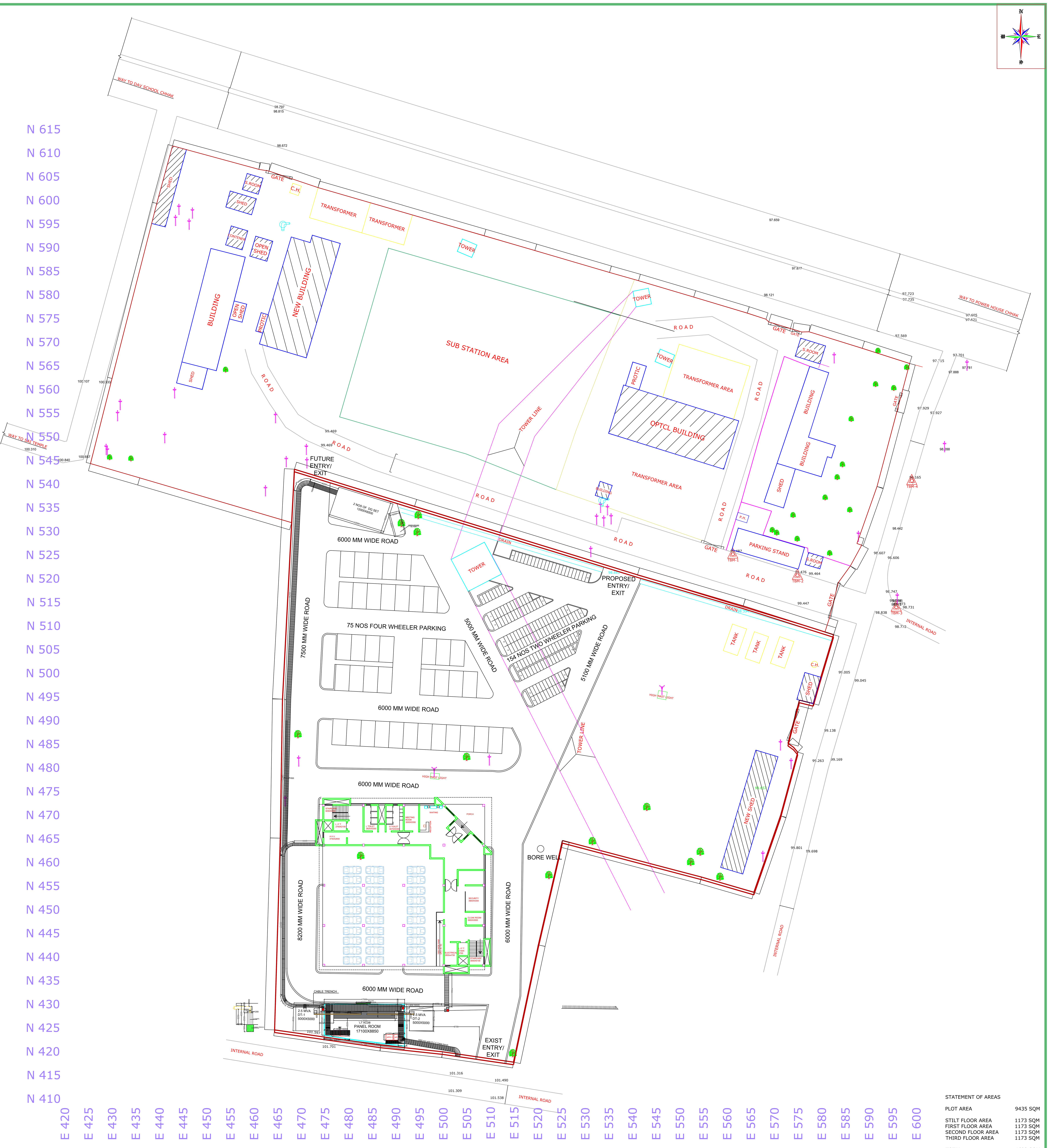
PRE BID QUERY REPLY, TENDER 1000000411 FOR 2000KVA DG SET					
SN.	Clause No.	Page no	DESCRIPTION	CLARIFICATIONS/COMMENTS	TPCODL Reply 04.09.2023
1	Scope				supply, design, constructional features, inspection, testing, commissioning & transportation of 415V, Diesel Generator (DG) Set complete with fuel system, lubrication system, cooling system, air intake, ventilation, heating system and exhaust system, battery and battery charger, instruments and protection, Control Panel and AMF Panel and accessories for efficient and trouble free operations at TPCODL site
2			(i) For Site testing diesel fuel & load in purchaser's Scope ?? (ii) Any major or minor civil work like grouting, excavation, backfilling etc in whose scope ? (iii) Construction Power & water will be provided by purchaser ?? (v) Any kind of statutory Approval in whose scope ?		Only Civil foundation & shed will be constructed by TPCODL. However, required drawings shall be provided by bidder.
			TPCODL 2000 Tender_Doc		
1	Annexure-I, Price Schedule	Page 18 of 23	ventilation, heating system	Not in our scope. For open space installation no special ventilation arrangement required.	Shall be as per tender specification
2	Annexure-I, Price Schedule	Page 18 of 23	2. Supply of Fuel transfer system for supply and return of fuel from underground tank to DG set with suitable buffer tank, piping & fittings, valves, pumps and strainer etc. arrangements. 5.Supply of Main underground fuel tank with hose pipe, oil pumps, pipes & fittings, flanges, valves and other required fitting & accessories	Kindly provide fuel system layout to enable us to understand the requirement and quote further. Open space drawing with dimension is required	Layout attached
3	Annexure-I, Price Schedule	Page 18 of 23	Supply of complete exhuast system including bending, welding with aviation lighting, lightning arrester, support structure, aluminium cladding and all other required accessories	Kindly provide exhaust system layout to enable us to understand the requirement and quote further.	Bidder to provide the layout as per system requirements.
4	Annexure-I, Price Schedule	Page 18 of 23	Supply of Power & control Cable with cable termination kit for connection between DG with AMF Panel	Kindly provide the distance between the DG set and panel to calculate the power and control cables. Anf any cable tray or trench required or not ? Civil work of trench will be in whose scope?	Layout attached
5	Annexure-I, Price Schedule	Page 18 of 23	Obtain necessary environmental and statutory clearances for operation & commissioning of DG set and main fuel underground tank	CEIG, SPCB & CCOE approvals. Govt department chalans are in purchaser's scope. And purchasers coordination required in statutory process. Any other approval required other than above ??	Obtain necessary environmental and statutory clearances for operation & commissioning of DG set and main fuel underground tank is in bidder scope.
6	3. CLIMATIC CONDITIONS OF THE INSTALLATION:	Page 2 of 17	1 Max. altitude above sea level 1200m	Kindly provide the exact altitude of site.	Site Location is Bhubaneswar, Odisha
7	4. GENERAL TECHNICAL REQUIREMENTS:	Page 3 of 17	13 The noise level of the DG set less than 75 dB(A) at 1m under free field condition	As per CPCB norms noise insertion loss shall be 25 dBA at one meter distance form DG set under free field condition. For 800 kw and above capacity DG Sets	Shall be as per CPCB Norms.
8	4. GENERAL TECHNICAL REQUIREMENTS:	Page 3 of 17	14 Earthquakes of intensity in horizontal direction equivalent to seismic acceleration of 0.3g	Pl. note that we will offer as per Seismic zone 2 only. If there is any specific seismic zone pl. specify.	Shall be as per tender specification
9	4. GENERAL TECHNICAL REQUIREMENTS:	Page 4 of 17	5 Starting System Electric 24V DC with dual starters for cranking	As per manufacture standard single starter shall be provided.	Shall be as per tender specification
10	4. GENERAL TECHNICAL REQUIREMENTS:	Page 4 of 17	4 Current 2782.5 A	2780 AMP current.	Shall be as per tender specification
11	4. GENERAL TECHNICAL REQUIREMENTS:	Page 4 of 17	1 Operation Microprocessor control based Auto start/stop, Auto Load sharing & Auto sync panel suitable for 2x2000 KVA. Sync check relay with parallel operation facility shall be provided.	Pl. confirm whether AMF Panel to be offered or sync panel. Also at present we are quoting for only 1 DG Set hence pl. specify whetehr the 2nd DG Set is already present at site or for future. If existing DG Set is there then provide existing controller details and existing panel schematic. If future DG Set is required then provide complete panel SLD with incoming & outgoing.	Both DG set to be synchronized between them. At present only one DG to be supplied by bidder and no existing DG set is available at site. 2nd DG set provision to be considered.
12	4. GENERAL TECHNICAL REQUIREMENTS:	Page 4 of 17	Manual change over	Panel scope is not clear, at one place AMF Panel is mentioned and at other place sync panel is mentioned. Pl. clear the exact scope of panel.Also clear manual changeover requirement. Proposed SLD will help in clarification.	Provide provision for 2nd DG Set. Both DG set to be synchronized between them. ACB Panel board is located inside the main control room which is approx 140m away from DG set location. AMF Panel to be provided by bidder as per system requirements which shall be located near at DG Set area. Both DG set to be synchronized between them. At present only one DG to be supplied by bidder and no existing DG set is available at site.
13	4. GENERAL TECHNICAL REQUIREMENTS:	Page 4 of 17	Acoustic Enclosure : Low Noise Level <=75 dB at a distance of 1 Meter in free field condition	As per CPCB norms noise insertion loss shall be 25 dBA at one meter distance form DG set under free field condition.	Shall be as per CPCB Norms.
14	5. GENERAL CONSTRUCTIONS:	Page 7 of 17	I. The diesel engine shall be of stationary type, four stroke with special in line cylinder arrangement.	Cylinder arrangement shall be 'Vee' type for the DG Set.	Noted
15	5. GENERAL CONSTRUCTIONS:	Page 9 of 17	Acoustic Enclosure : II. The enclosure shall have necessary drain plugs to drain oil and provision for connection of the day fuel tank (inside the enclosure) to main fuel tank if required.	Due to space constraint 990 liter day tank shall be placed outside canopy.	Noted
16	5. GENERAL CONSTRUCTIONS:	Page 9 of 17	Acoustic Enclosure : III. Adequate ventilation shall be provided to meet air requirement for combustion and heat removal.	DG set is provided with acoustic enclosure which has self ventilation and if same is to be placed inside the room, room ventilation shall be in purchaser scope.	Shall be as per tender specification
17	5. GENERAL CONSTRUCTIONS:	Page 9 of 17	Fuel Supply and Return System : Fuel transfer system for supply and return of fuel from underground tank to DG set shall be provided with suitable buffer tank, piping & fittings, valves, pumps and strainer etc. arrangements.	Kindly proide layout and P&ID of fuel system.	Automatic & Manual Fuel Supply system shall be provided
18	5. GENERAL CONSTRUCTIONS:	Page 9 of 17	Each fuel day tank shall be double wall type sized for 3 hours of operation at full load. The tank shall be complete with all connections, controls and accessories for a complete system.	As per manufacture stadard we will supply 990 liter single wall tank which is suitable for 2.5 hours continuous operation at full load.	Noted
19	Fuel Supply and Return System	Page 9 of 17	Main Fuel Tank: The main fuel tank shall be of double wall construction and shall be provided with an electronic leak detection system to detect leakage in the interstitial space between the inner and outer walls	As per manufacture standard single wall fuel tank shall be provided.	Shall be as per tender specification
20	Local Electrical operation	Page 10 of 17	associated Air Circuit Breaker (ACB) of LT Panel board shall be closed and energize the bus.	Pl. clear whether DG Set breaker is in our scope or shall be part of LT Panel. Also provide panel SLD. So that it will be clear whether Single breaker or double breaker AMF Panel is required.	DG Set Breaker Panel is placed inside the main control room & it is TPCODL scope
21	7. TESTS:	Page 12 of 17	7. TESTS:	We shall offer the assembled DG set at our works for load trials for 1 hour before dispatch. Testing beyond the given duration shall be charged extra We have not considered any kind of separate routine/type tests on engine & alternator. However certificates for the same shall be provided after award of Contract.	Shall be as per tender specification
22	9. PRE DISPATCH INSPECTION:	Page 14 of 17	9. PRE DISPATCH INSPECTION:	Please clarify whether seperte Inspection of engine and alternator at principal's works is required or complete DG Set will be tested. Kindly confirm testing hours at our works & inspctor visiting charges will be in whose scope.	Complete DG will be inspected. TPCODL Inspector visiting charges shall be in TPCODL scope
23	11. GUARANTEE:	Page 15 of 17	11. GUARANTEE:	The components of the D G Set stands warranty of its respective manufacturer for a period of 18 months from the date of dispatch or 12 months from the date of commissioning or 5000 running hours whichever is earlier.	Shall be as per tender specification
24	12. PACKING:	Page 15 of 17	12. PACKING:	As per standard practice DG set shall be dispatched packed in polythene whereas panel shall be dispatched packed in wooden crate.	Noted
25	17. SPARES, ACCESSORIES AND TOOLS	Page 16 of 17	Bidder shall provide a list of recommended spares with quantity and unit prices for 5 years of operation after commissioning	We do not recommend stocking the spare as all the spares are readily available at nearest authorized Sales & Service dealers. Moreover the self life of spare is 6 months. Also note that spare required are depend on number of operation hours	Provide the recommended spares lists
26			Delivery period shall be 120 days from date of receipt of release order / CAT-A issuance, whichever is later. Installation, testing and commissioning time will be 15 days from date of site clearance.	For total SITC work minimum 180 days should be the time frame	Please mention deviation in Annexure III of tender (Deviation sheet)
1	Page 2 of 23 /3/ /5) Performance Bank Guarantees		PBG: 25%	As per the Govt Policy it revised to 3%. Please confirm MSME or Non MSME PBG %	CPBG will be applicable @ 2.5% of contract value for Odisha based MSME Bidder, otherwise it is 10% of contract value.

2	Page 18 of 23 / Annexure-I, Price Schedule		Supply of Fuel transfer system for supply and return of fuel from underground tank to DG set with suitable buffer tank, piping & fittings, valves, pumps and strainer etc. arrangements,	AS per the tender we will supply Set . For UG tank Please elaborate the requrirement as qty is One Set mentioned. Please confirm the exact requirement enable to quote accordinlgy. As per the operation requirement for 48 hours comntinous it comes to 18 KL. So UG tank capacity will be 20KL. Please confirm the exact capcity with accesories required. Also please provide the Site layout to evaluate the statutory clearnace of Bulk Storge Tank. Also confirm Civil Foundation for DG Foundation, Exhaust Pipe and UG tank is in scope of TPCODL. Please also provide site details for site visit.	Layout is attached Suitable size of Bottom oil underground tank (MS as per IS 2062) shall be provided by bidder for 48 hrs. Operation of DG set at full load. Only Civil foundation & shed will be constructed by TPCODL. However, required drawings shall be provided by bidder. All scopes shall be as per tender specification. Obtain necessary environmental and statutory clearances for operation & commissioning of DG set and main fuel underground tank is in bidder scope.
3	Page 2 of 17 / 3. CLIMATIC CONDITIONS OF THE INSTALLATION:		Maximum temperature attainable by an object exposed to sun is 60 Degree,	Please note that DG Set system will be design for suitable upto 50deg amb. Temperature. Please confirm.	Shall be as per tender specification
4	Page 8 of 17 /Alternator		The alternator shall be directly coupled to the diesel engine by flexible coupling and shall be brushless type, self-excited, self-regulated type and with drip proof enclosures,	We will be supply Single Bearing Alternator directly coupled with the Engine by closed coupling . Also please note Flexilbe coupling is obselete by the manufacturer due to Alignment issue as well more maintenance issue. SAE21	Shall be as per tender specification
5	Page 9 of 17 /Cabling		All internal panel wiring shall be carried out with 650V grade, PVC insulated, FRLS type, flexible copper wires,	We will be use 650V/1.1KV grade cable as per manufacturing standard requirement. Please confirm	Shall be as per tender specification
6	Page 5 of 17 /Acoustic Enclosure		The acoustic enclosure shall have necessary drain plugs to drain oil and provision for connection of the day fuel tank (inside the enclosure) to main fuel tank if required. The doors/joints of sheet metals shall be gasketted as required to reduce the noise level. DG Set enclosure shall be provided with two (2) nos. of earth pads suitable for connecting galvanized steel flat of adequate cross section, which shall be connected to earthing pit,	Due to higher rating Genset, Fuel tank will outide acoutic enlcousre . Also please note that as per CPCB Norms Acoustic Enclosure will be suitable for 25dBA insertion losse.	Shall be as per CPCB norms
7	Page 10 of 17 /Automatic Electrical Operation		For automatic starting of the DG Sets, following logic inputs are required to be provided to AMF panel.	We will avail No voltage signal from your Mains incomer/ Gird Incomer /Transformaer incomer breaker /Bus for the Auto Start/Srop logic. Multiple souce singnaling is not possile. Please confirm.	Automatic starting of the DG Sets is required
			(i) There is no voltage on bus-bars of the LT Panel Board,		
			(ii) There is no voltage on respective DT Bus Duct,		
			(iii) Respective ACB of DTs are opened		
8	Page 10 of 17 /Paralleling Control Functions:		Paralleling Control Functions:	As we understand the requirement is for Single 2000KVA DG Set. Please Clarify the sunchroziation requirement . Also please let us know whether any other DG set is installed at your site for which we need to do the synch from DG to DG Set OR any grid Synch is required.	Provide provision for 2nd DG Set. Both DG set to be synchronized between them. ACB Panel board is located inside the main control room which is approx 140m away from DG set location. AMF Panel to be provided by bidder as per system requirements which shall be located near at DG Set area. Both DG set to be synchronized between them. At present only one DG to be supplied by bidder and no existing DG set is available at site.
			(i)Digital frequency synchronization and voltage matching		
			(ii) Isochronous kW and kVAR load sharing controls		
			(iii) Droop kW and kVAR control		
			(iv) Sync check		
			(v) Extended paralleling (Peak Shave/Base Load)		
			(vi) Digital power transfer control (AMF) provides load transfer operation in open or closed transition or soft (ramping)transfer mode		
9	Page 10 of 17 /Electrical Connection		Electrical Connection: The connection between DG set to AMF Panel and AMF Panel to LT Panel Board shall be through XLPE Cable (1.1kV, 6 Run/phase, 1Cx630 sqmm). Arrangements shall be provided in DG set for connection of Cable through bottom entry only. Connection at DG end shall be done bidder,	multiple run 3.5Core x 300 Sqmm Allum Armoured cable is Recomded manufacturer. Please clary.	Shall be as per tender specification
10	Page 12 of 17 / 7. TESTS:		Routine, Acceptance & Type tests shall be carried out in accordance with the relevant IS/IEC/ International standard. Acceptance tests shall be witnessed by TPCODL/TPNODL/TPSODL/ TPWODL's authorized representative. Following tests shall be necessarily conducted on the DG Set in additions to others specified in IS/IEC/ANSI standards. Type tests shall be conducted from CPRI/ERDA/Any Govt. Lab.,	We will be provide alterantor Test certifictes from the original manufaccturer for your review and record. No individual of Engine and Alternator test is possible. Also we will provide witness test of assembled DG Set as per our QAP at DG Sets assembly works.	Shall be as per tender specification
11	Page 14 of 17 /8. TYPE TEST CERTIFICATES:		Type test should have been conducted in certified test laboratories during the period not exceeding 5 years from the date of opening the bid. In the event of any discrepancy in the test reports i.e. any test report not acceptable or any/all type tests (including additional type tests, if any) not carried out, same shall be carried out without any cost implication to TPCODL/TPNODL/TPSODL/TPWODL,	We will be provide alterantor Test certifictes from the original manufaccturer for your review and record. No individual of Engine and Alternator test is possible. Also we will provide witness test of assembled DG Set as per our QAP at DG Sets assembly works.	Shall be as per tender specification
12	Page 16 of 17 /17. SPARES, ACCESSORIES AND TOOLS		SPARES, ACCESSORIES AND TOOLS: Bidder shall provide a list of recommended spares with quantity and unit prices for 5 years of operation after commissioning. OEM to ensure availability of spares for next 25years.	We/OEM will be support the availaibility for the next 10 years after the commissionng of DG Set, Due to continuous development of product. Please confrim.	Shall be as per tender specification
13	Page 24 of 104 /14.6 Latent Defect / GCC		Latent Defect: Hidden defects in manufacturing or design of the product supplied and which could not be identified by the tests conducted but later manifested during operation of the equipment are termed as latent defects. Associates shall further be responsible for 'free replacement' for another period of THREE years from the end, of the guarantee period for any 'Latent Defects' if noticed and reported by the Company,	Our standrd warranty of DG Set is 24 Months / 5000 Hours of operation whihch ever occures ealier from the date of commissioning or 30 months from the date of delivery whichever occures earlier. Any extended warranty required beyond the warranty period shall be charged extra as per the manufacturer recommnedation.	Guarantee shall be tender specification clause no. 11 (page 38/186 of tender document) Please submit bid considering the same including extra charges, if any.



STATEMENT OF AREAS

PLOT AREA	9435 SQM
STILT FLOOR AREA	1173 SQM
FIRST FLOOR AREA	1173 SQM
SECOND FLOOR AREA	1173 SQM
THIRD FLOOR AREA	1173 SQM
TOTAL	4692 SQM

LEGEND :-

SURVEY STATION	
BOUNDARY	
ROAD	
SHED/ BUILDING	
ELECTRIC PILLAR	
TOWER LINE	
TREE	
HIGH MAST LIGHT	
DRAIN	
BORING	
DRAIN INVERT LEVEL	98.681
BLD PLINTH LEVEL	99.657
SPOT LEVEL	100.441
CONTOUR & LEVEL	

SL. NO.	T.B.M	EASTING	NORTHING	R.L.
1	T.B.M - 1	561.188	525.099	99.487
2	T.B.M - 2	574.848	520.651	99.476
3	T.B.M - 3	595.743	513.909	98.773
4	T.B.M - 4	599.026	540.670	98.165

PARKING PLAN FOR

PROPOSED TECHNOLOGY CENTER FOR TPCODL AT POWER HOUSE BHUBANESWAR , KHORDHA , ODISHA.

NOTES :-

1. ALL LEVELS AND DIMENSIONS ARE IN METER.
2. ALL GRIDS ARE IN ASSUMED CO-ORDINATES.
3. TAKING GRID LEVELS ARE 5.0 MTR INTERVAL.
4. ALL CONTOUR INTERVAL IS 0.25 M.
5. TOTAL SURVEY AREA = 9434.808 Sqm = 2.331 Acre.
6. OPTCL 2ND PART SURVEY AREA = 10033.699 Sqm = 2.479 Acre.

PROJECT :- TOPOGRAPHIC-CUM-CONTOUR SURVEY PLAN FOR PROPOSED TECHNOLOGY CENTER FOR TPCODL AT POWER HOUSE BHUBANESWAR , KHORDHA , ODISHA.

NAME: TPCODL TECHNICAL CENTRE PSS DRAWING

Consultants :- A.I.K. SURVEY CONSULTANCY

Architects :- SPACE ARCH ARCHITECTS.ENGINEER.PLANER 205,JAYADEV VIHAR, BHUBANESWAR

SCALE :- 1:400	Drawn By.	Checked By.
DRG. NO. : AR-01	PONRAJ G A	NIRANJAN KHUNTIA
DATE :- 24.07.2023		