

## Tata Power Northern Odisha Distribution Limited, Balasore

## Pre-Bid Tech-Comm Query Response NIT-023, 11kV RMU

SN	Document Reference	Page Ref	Clause Ref	Requirement as per Tender	Ammendment Proposed	Justification	TPNODL Remarks
1	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY	1 of 41	1.0 Scope	This specification covers the technical requirements of design, manufacture, testing at manufacturer's works, packing, forwarding, supply and unloading at site/store and performance of 11kV Ring Main Units with various configurations in Non-motorized, Motorised and Smart RMU along with all accessories and necessary training for trouble free & efficient performance.		Scope for this package is only design, manufacture, testing at manufacturer's works, packing, forwarding, supply and unloading at site	Discuss in Technical Evaluation
2		3 of 41	3.0 CLIMATIC CONDITIONS	The design of equipment and accessories shall be suitable to withstand seismic forces corresponding to an acceleration of 0.1 g.		The foundation/plinth of the RMU has to be designed suitably by the end user, in that cases the RMU would be able to withstand the shocks that will be experienced in the seismic zone	Foundation/Plinth of the RMU will be proper, RMU should have the capability to withstand seismic forces
3		4 of 41	4.0 GENERAL TECHNICAL REQUIREMENTS OF RMU:	14 Opening time of breaker (max.) without relay time 2.5 cycle		Approx. 40-80 ms	Shall be less than 60 ms
4		4 of 41	4.0 GENERAL TECHNICAL REQUIREMENTS OF RMU:	15 Closing time of breaker (max.) without relay time 3 cycle		Approx. 40-70 ms	OK
5		4 of 41	4.0 GENERAL TECHNICAL REQUIREMENTS OF RMU:	Contact material in Vacuum bottle- Copper chromium with silver plating or better		Solid Copper Chromium without silver plating	OK

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6		4 of 41	4.0 GENERAL TECHNICAL REQUIREMENTS OF RMU:	Make of vacuum bottle		Make: ABB India Ltd Type: VG5	OK
7		9 of 41	5.2 GENERAL DETAILS	5.2.11 opening of panel covers is only possible with special tools which shall be provided by the Bidder as mandatory spare/tool.		No Special tools are envisaged to open the panel covers for offered RMU	Share the details
8		9 of 41	5.2 GENERAL DETAILS	5.2.14 The terminal bolt used in LBS compartment shall have 15mm longer than regular bolt		We shall provide M16 bolts as per manufacturer standard Request to give more clarification for using the more lengthier bolt	Shall be suitable for proper connection with Cable Lug
9		12 of 41	5.5 Circuit Breaker For Transformer / Local Feeder Control	5.5.24 Wiring for auto-reclosing operation of CBs through relay to be done. (Reclosing shall be only done with 10 sec. delay programed in relay)		Request you to pls confirm the make & model of relay to be used for this function	Self powered relay Ashida
10		20 of 41	5.11 Remote Control of the RMU & other requirements	e) The On/Off Push button of LBS and VCB shall be illuminated type with inbuilt LED indicating presence of electrical supply.		We shall provide non illuminated push buttons for LBS & VCB	Two contacts in series shall be used for LBS/VCB On/off control cmd

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11		20 of 41	5.11 Remote Control of the RMU & other requirements	h) 1 No. Surge Protection Device to be provided for the relay communication ports for protection from external surge.		Request you to pls confirm the make & model of relay to be used for this function	Self powered relay Ashida
12		31 of 41	8.0 TYPE TEST CERTIFICATE	Type tests shall have been conducted in certified Test laboratories during the period not exceeding 5 years from the date of opening the bid.		11KV RMU's are type tested as per IEC standards Request to accept the validity of the Type test reports as per the latest guidelines from CEA Dated: May 2020	Share the date and year of Type test report. Submit the letter on letter head if no change in source of material, No Design change,
13		33 of 41	14. TRAINING	The bidder shall arrange to provide the installation and operating training at TPNODL offices as and when required for better installation and usage of the product.		Pls confirm the number of days to be considered for training	Need to comply as per TPNODL Remarks in Tender
14		17 of 162	ANNEXURE-I Schedule for Items	RATE CONTRACT FOR Supply of 11kV-4Way RMU Outdoor Type in TPNODL Area		As per Clause 4.1 - Page No: 4 of 41 of SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY There are three 4 way configurations pls confirm which one to quote iii) 4 Way with 2CB (For Indoor and Outdoor application): Both side extensible 2 Nos. 630A Load Break Switches + 2 Nos. 630A Feeder Vacuum Circuit Breakers with self powered O/C + E/F relays + shunt trip coil + 1 No. Electronic Fault Passage Indicator in left side LBS in each RMU iv) 4 Way with 2CB (For Indoor and Outdoor application): 2 Nos. 630A Incomer Load Break Switches + 2 No. 630A Local Feeder/transformer Control Vacuum Circuit Breaker with self powered O/C + E/F relays+ shunt trip coil+1 No. Electronic Fault Passage Indicator and 1Cx 630 sq mm cable provisions in one LBS v) 4 Way with 3 CB Non extension type (For Indoor and Outdoor application): 1 Nos. 630A Incomer Load Break Switch + 3 Nos. 630A Feeder Vacuum Circuit Breakers with self powered O/C + E/F relays + Shunt trip coil + 1 No. Electronic Fault Passage Indicator in left side LBS in each RMU	Outdoor Application 3 Way with 2 LBS + 1 CB 3 Way with 1 LBS + 2 CB 4 Way with 2 LBS + 2CB
15			5.1.5	It is mandatory to fit an absorption material in the tank to absorb the moisture from the SF6 gas and to regenerate the SF6 gas following arc interruption.		Since interrupting medium in our RMU is vacuum, so chances of degradation of SF6 are less. Still we used silica bag as an absorption material. Kindly allow manufacturer to offer their standard desing.	OK

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16			5.2.9	The earth switch shall be fitted with its own operating mechanism and manual closing shall be driven by a fastacting mechanism		Earthing attend by 3 way switch along with the breaker, which caters the purpose of earth switch(Close-Open-Earth).	OK
17			5.2.14	CB- E2,M1,C1 LBS- E3,M1 ES- E2, M0		We request you to kindly allow manufacturers for offer their standard design CB- E1,M1,C1 ES- E1, M0 LBS- E1,M1	Not Acceptable
18			5.5.4	In view of safety each VCB shall be assisted with feeder side disconnector having 3 positions, open-disconnected, closed, and earth (having fault making capacity) and shall be constructed in such a way that natural interlocking prevents unauthorized operations.		Our RMU is design for bus Side disconnector having 3 positions, open-disconnected, closed, and earth (having fault making capacity). Hence we request you to kindly allow manufacturers to offer their standard design of RMU with 3 Position disconnecting switch to be provided between Busbar and VCB.	OK
19			5.5.10	The operating mechanism shall be compatible for remote/ SCADA operation. The required motor for this operation shall be delivered separately to stores (at a later date) and shall be compatible with older versions of RMUs already working within the TPNODL network.		The motor used in our RMU shall be of CGPISL make, & it will suitable for our RMU only.	OK
20			5.5.18	The relays shall be self-powered suitable numerical relay with necessary elements. Please refer Specification no. ENG-HV-95 for Self power relay for RMU feeder protection. The preferable make of relay are ABB, Ashida, Schneider, Siemens make relay.		We request you to kindly include CG make Numerical Relays.	Not Acceptable

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21			5.11	The FRTU offered model and make (As on date of release of document the approved models are ABB Make FRTU with Model No – RTU540 Siemens Make FRTU with Model No – A8000, Schneider Make FRTU with Model No – T 300 compling to FRTU specs.)		We request you to kindly include CG make FRTU.	Shall not be considered.
22	Procedure to Participate in Tender			RATE CONTRACT FOR SUPPLY OF 11kV 4-Way RMU in TPNODL Area B. RATE CONTRACT FOR SUPPLY OF 11kV 3-Way (2LBS) RMU in TPNODL Area C. RATE CONTRACT FOR SUPPLY OF 11kV 3-Way (1LBS) RMU in TPNODL Area		We are considering the specification of 4 way and 3 way RMU's as below <b>4 Way with 2CB (For Outdoor application):</b> Both side extensible : Both isolators are Motorized and Breaker shall be manual. <b>3 Way with 1CB (For Outdoor application):</b> Both side extensible : Both isolators are Motorized and Breaker shall be manual . <b>3 Way with 2CB Non extension type(For Outdoor application):</b> Both isolators are Motorized and Breaker shall be manual .	OK
23	Mandatory documents required along with the Bid		1.4	Drawing, Type Test details along with a sample of each item as specified at Annexure I (as applicable)		Drawing, Type Test Report will be submitted. However, submission of sample item is not possible	OK
24	Type Test		3.9	The type tests specified in TPC specifications should have been carried out within five years prior to the date of opening of technical bids and test reports are to be submitted along with the bids. If type tests carried out are not within the five years prior to the date of bidding, the bidder will arrange to carry out type tests specified, at his cost. The decision to accept/ reject such bids rests with TPC		As per Central Electricity Authority guideline the validity of type test for medium voltage switchgear is for 10 years, attached copy for your referennce. Furthermore, we confirm that there is no change in offered design.	Share the date and year of Type test report. Submitt the letter on letr head if no change in source of material, No Design change,
25	SPECIFICATIO N OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		1.0 Scope of RMU	design, manufacture, testing at manufacturer's works, packing, forwarding, supply and unloading at site/store		Please confirm unloading at site/store is in TPC scope.	Discuss in Commercial Evaluation

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26	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		3.0.2	Maximum ambient air temperature 50°C		The Offered RMU is designed for 630A at max ambient temp of +40 Deg C with temperature rise as per relevant IEC. The suitable current derating is applicable at higher temperature.	Share exact details of derating .
27	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		3.0.9 & 10	Earthquakes of an intensity in horizontal direction - equivalent to seismic acceleration of 0.3g Earthquakes of an intensity in vertical direction - equivalent to seismic acceleration of 0.15g (g being acceleration due to gravity)		The foundation/plinth of the RMU is to be designed suitably by the end user, then the RMU as such can withstand the shocks that will be experienced in the seismic zone	OK
28	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		4.1.22	Non removable MIMIC Diagram on Front of panel		Earth switch shall be marked separately through yellow mimic	All LBS , CB and ES shall be shown in Mimic
29	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.1.1	The outer body shall be made of minimum CRCA of 3mm or GI high tensile steel 2mm thick with thick gland plates of 3mm as per IS 513.		Please accept outer body of CRCA of 2mm thick with gland plate of 3mm thick suitable for outdoor applications	OK
30	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.1.2 & 5.1.6	The main tank shall be of Stainless steel grade 304 or better with sheet thickness of 2.5 mm minimum and meet the "sealed pressure system" criteria in accordance with the IEC 62271-200.		The main SF6 tank, housing the on-load break switches and the vacuum circuit breakers, should be with SS 441 material & 2 mm thickness stainless steel tank with magnetic material, which is sufficient to guarantee full performance of the RMU as per norm laid by IEC with respect to Internal arc, gas pressure & degree of protection of stainless steel tank.  The choice of the thickness of tank varies manufacturer to manufacture. It is based upon design specific & depends on many parameters like profile of the tank, grade of stainless steel, the shape & size of internal component & their mounting arrangement inside the tank, the pressure of SF6 gas etc. Schneider make RMU is made in fully accordance to IEC 62271-200 where IES does not call for specific thickness of tank but the tank design is derived after proper calculations, simulations and tests to fulfill all the above functional and IEC requirements.  Further we would like to inform you that we have supplied more than 50000 Nos. of RMUs across India with the same design which are working very satisfactorily. Hence request you to please accept our standard type tested design.	Compatibility will be checked during technical evaluation

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31	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.1.11	Temp rise above ambient of 50 deg.		Temperature rise shall be as per IEC 62271-1 table III, over an ambient of 50degree. De-rating as per IEC shall be applicable on rated current of 630A. For an ambient of 45 degree , rating shall be 600A . For an ambient of 50 degree , rating shall be 570A. For an ambient of 55 degree , rating shall be 535A.	Ok as per IEC
32	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.2.1	Cable compartment shall be IP54.		For indoor type of RMU , cable compartment shall be IP2X.	For outdoor application IP54 is mandatory
33	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.1.14 & 5.6.3	Three way with two CB & Four way configuration following thing to be complied: The incomer LBS shall be suitable for 1Cx 630 sq.mm cable. Cable boots, gland plate, cable cleat, washer, bushings & terminal bolts should be suitable for 1Cx 630 sq.mm cable in LBS cable compartment.		The incoming LBS function ( 1no LBS function) shall be suitable for 1Cx630sqmm cable with touchproof cable boots.Rest of the functions will be suitable for 400sqmm cables with non-touch proof boots.	OK
34	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.1.14	The terminal bolt used in LBS compartment shall have 15mm longer than regular bolt to accommodate the mechanical type lug having large thickness		Termination bolt and associated accessories required for cable boots shall be in line with manufacturer's standard practise.	OK
35	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.4.4	5.4.4 Earthing of the cable shall be either through a three position switch & Earth Switch having fault making capacity.		Earth switch shall be provided on the cable side , tested for making duty.However the design of the same shall be sa per type tested design.	Compatibility will be checked during technical evaluation
36	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.4.8	The Load break switch should have minimum spare (for TPNODL use) 3 NO+ 3 NC auxiliary contacts and 1NO+1NC for earth switch		Please note that 2 NO+ 2 NC contacts can be provided for C function and Earth switch shall have 1NO+1NC as auxiliary contacts in total.Spare contacts shall be provided in LV chamber through Aux contact multiplication,kindly confirm	Min 2 NO + 2NC Required

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37	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.5.2 & 5.5.7	The position of the power and earthing contacts shall be clearly visible on the front of the RMU.		Since the power contacts & earthing contacts are housed inside the completely enclosed gas tank & hence their position visibility shall not be available on the front of the RMU.However their positions can be identified from the position of indicators on the mimic.	OK
38	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.5.6	Breaker contact resistance should be <=50 micro-ohms. The various circuit contact resistance should comply with provisions in IEC 62271-200.		Shall be around < 350 micro Ohms , as per IEC 62271-100	Shall be as per IEC
39	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.5.7	The breaker should have minimum spare (exclusively for TATA POWER-DDL use) 4 NO+ 4 NC auxiliary contacts.		Standard motorized T2 function shall have only 1NO+ 2NC as spare for customer exclusive use.Spare contacts shall be provided in LV chamber through Aux contact multiplication,kindly confirm	Min Direct aux contact shall be 2 NO + 2 NC required
40	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.5.10	The operating mechanism shall be compatible for remote/ SCADA operation. The required motor for this operation shall be delivered separately to stores (at a later date) and shall be compatible with older versions of RMUs already working within the TATA POWER-DDL network.		We have considered Manual RMU provision shall be made for future motorization.We have not considered motorisation in VCB	OK
41	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.5.13	CT shall be resin cast only, CT shall be of Protection class having duel ratio i.e. 400/1A and 60/1A. The ratio selection shall be made available on one TB on control cubicle. The ratio section chart shall be fixed permanently at suitable nearest arrangement available.		Ratio selection chart shall be provided as a sticker near TB on control cubicle.	OK
42	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.5.18	The relays shall be self-powered suitable numerical relay with necessary elements. Please refer Specification no. ENG-HV-95 for Self power relay for RMU feeder protection. The preferable make of relay are ABB, Ashida, Schneider, Siemens make relay.		We are offering C&S make CSDPR-V2-500 , catalogue attached for reference.	Not Acceptable. shall be ABB, Ashida or Schneider make only



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43	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.5.22	The breaker should have one series trip coil and one shunt trip coil. The shunt trip coil shall be of 24V DC along with charger and complete wiring up to trip coil through DC MCB and MCB arrangement for AC charger.		We have not considered any aux supply , 24V DC in scope.Kindly arrange to provide aux supply for RMU.	All wiring shall be brought to TB, input supply shall be arranged by TPNODL
44	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.5.24	Wiring for auto-reclosing operation of CBs through relay to be done. (Reclosing shall be only done with 10 sec. delay programed in relay)		The Offered relay will have auto reclosing function. Closing is through motorisation operation , no separate close coil available. Trip coil (shunt) and CB status (through Aux contact ) can be wired up to the relay.In case of manual RMU , closing operation to be done manually.	AR not required. Manual Operation
45	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.6.1	Bushing should be of Epoxy resin of minimum F class. Each cable compartment shall be provided with three bushings of adequate sizes to terminate the incoming and outgoing cables. The termination bolt shall be of stainless steel and M16 size with min. 30mm only for all bushings and for RMU with 630sq.mm single core cable design the 20 mm longer terminal bolt to be provided.		Bushing shall be as per manufacturer's standard. We provide MS M16 termination bushing stud for termination , size shall be as per manufacturer's standard.	Share Bushing details.
46	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.7.2	The extension of this earth bus shall be taken out minimum 50mm outside the enclosure on both sides for fixing of the TATA POWER-DDLs GI earth flat of 50mm width. The extension coming out of enclosure shall be properly sealed such a way to ensure vermin proofing of the cable compartment.		Complied.We have provided earthing stud instead of extension for easy conection of the customer earth bus and the same is rated for rated fault current capacity and resistance equal to earth busbar.	OK
47	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.8.2	There should be electrical interlock of cable presence indicator and operation of earth switch in RMU incomer cable compartment of LBS.		For any RMU ( motorised or manual) , the earth switch operation is manual.Offered RMU has a separate Earthing switch independent of operator operation and electrical interlock with VPIS is not possible in our standard design.Since operation of earth switch is manual and indicaton of cable live is available in the front facia , chances of closing on live cable is very less. Additionally padlocking arrangement can be provided for Earth switch position for additional safety.Kindly also note that offered earth switch is tested for making current as well.	OK

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48	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.8.5	This feedback should be used to operate the interlock for earth switch such that earth switch shall not operate when back end of cable is live		For any RMU ( motorised or manual ) , the earth switch operation is manual.Offered RMU has a separate Earthing switch independent of operator operation and electrical interlock with VPIS is not possible in our standard design.Since operation of earth switch is manual and indicaton of cable live is available in the front facia , chances of closing on live cable is very less. Additionally padlocking arrangement can be provided for Earth switch position for additional safety.Kindly also note that offered earth switch is tested for making current as well.	OK
49	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.9.6 & 5.9.7	The mimic shall have clear Words for "CLOSE/OPEN/EARTH" at each desired place. All status indicators shall be marked appropriately with permanent labels as Earth On/OFF, Disconnecter/LBS On/OFF, CB On/OFF		labelling shall be done on the mimic through stickers as per previous supplies	PI note permanent labels required as stickers will vanish after few years
50	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.9.12	For gas pressure indication a dial type manometer to be provided with will show actual pressure.		We have considered relative pressure guage in the SF6 tank,however the same shall not show the actula pressure .It will show whether the pressure inside the tank is healthy or not	Shall provide actual pressure
51	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.9.14	IN case of smart RMU the FRTU should be programmed such that in case of low GAS pressure the remote switch operation should be blocked.		Not applicable as there is no SMART RMU in the offer	OK
52	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.9.15	All the other accessories and boxes shall be properly labelled with permanent marking/printing such a way that the product is self-explanatory for user. Nomenclature to be provided along with symbols.		Mimic shall be as per manufacturer's standards and labelling shall be done on the mimic through stickers as per previous supplies	Permanent Labels shall be provided
53	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.10.1	Fault Passage Indicators shall be installed on the Ring Main Unit. These devices shall be, electronic devices with their own energy source and connected to Single 3 phase Split Core CTs (CBCT) for O/C. These shall be provided with bright LED s / flag Indicators, which shall be clearly visible in the day time. These shall have the following resetting facilities:		Complied,We have considered C&S FPI in scope , however spare contacts are not required since the RMU is not a SMART RMU.	OK

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54	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.10.5 5.14.18	The process of fixing the FPI shall be fixed on the wall of the incomer LBS cable compartment along with pictorial view.		labelling shall be done on the mimic through stickers as per previous supplies	Permanent Labels shall be provided
55	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.11	f) Both the LBS should be wired up for auto changeover scheme. And CB to be wired up for Autorecloser Scheme/feature. g) The CB mechanism should be suitable for auto reclosing after 10second dead time.		The Offered relay will have auto reclosing function. Closing is through motorisation operation , no separate close coil available. Trip coil (shunt) and CB status (through Aux contact ) can be wired up to the relay.In case of manual RMU , closing operation to be done manually.	OK
56	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.11	h) 1 No. Surge Protection Device to be provided for the relay communication ports for protection from external surge.		Relay communication ports are tested for surge protection , separate surge devices are not required. Necessary surge protection is a part of relay standard design, NO separate protection devices are required.	OK
57	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.11	j) All Close-Open coils/ auxiliary contacts shall be rated for 24 V DC. Following auxiliary contacts are essential for remote operation of RMU: a. Aux. contact for Line Isolator (Status ) b. Aux. contact for all earthing switch (Status) c. Aux. contact for Breaker (Status) d. Aux. contact for FPI indication e. Aux. contact for Protection trip (Breaker module) f. Aux. Contact for Low Gas Pressure  n) Signal requirement for field RTU (which shall be mounted near RTU) is attached (refer Annexure 1). The bidder shall quote the cost of		Not applicable as there is no SMART RMU in the offer	OK
58	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.11	k) 2 Nos. spare relay tripping NO, NC contacts to be provided. Flag Indications on RMU when tripped should be on shunt trip. A provision for physical disconnection of motor supply (like fuse) of line isolator must be provided in RMU unit itself.		No mechanical flag shall be provided , however we can provide trip LED indication on the relay for tripping can be provided , irrespective of series and shunt trip.We have provided a MCB for DC supply disconnection in the RMU itself.Spare tripping contacts shall not provide as remote tripping is not applicable in these RMU.	OK
59	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY			Cable cleats (full circle) Nylon (Fire Retardant)		We have considered HDPE cable cleat , kindly confirm	OK
60	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.13.14	VPIS electric interlock The VPIS shall have electrical interlock with earth switch such that only earth when cable not charged		For any RMU ( motorised or manual ) , the earth switch operation is manual.Offered RMU has a separate Earthing switch independent of operator operation and electrical interlock with VPIS is not possible in our standard design.Since operation of earth switch is manual and indicaton of cable live is available in the front facia , chances of closing on live cable is very less. Additionally padlocking arrangement can be provided for Earth switch position for additional safety.Kindly also note that offered earth switch is tested for making current as well.	OK

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61	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.13.21	To be provided along with series trip coil and specify DC power rating and charger/converter ratings offered		We have not considered any aux supply , 24V DC in scope.Kindly arrange to provide aux supply (AC and DC) for RMU.	OK
62	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.13.22 5.13.29	MCB for LT AC incomer and TB connection of all CT, Aux switches and relay wiring in separate control cabinet All auxiliary contact, relay LT Supply contact, relay DI/DO contact, provision for communication device in a control compartment.		Complied , the same shall be provided in the LV compartment of the offered RMU.No separate compartment has been considered in scope.	OK
63	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.13.30	In each cable compartment each bushing shall have temperature sensors.		We have not considered any sensors in the cable compartment as the tender requirement is not for SMART RMU's.	OK
64	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		5.13.31	Total height of the indoor RMU should be <1900mm		Height of the RMU shall be as per type tested design ( 2100mm)	OK
65	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		6	The name plate data should be printed in QR code with name plate details, purchase details, operating manual, SOP, troubleshooting techniques, warranty details and customer care contact details with complaint registering mechanism and fixed on the front cover or suitable place		We have not considered any QR code in the FBX RMU.	OK
66	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		7	All the Routine and acceptance tests shall be carried out in accordance with the relevant IS/IEC standards. All routine/acceptance tests shall be witnessed by the purchaser/his authorized representative. All the components within the RMU enclosure shall have been tested for Routine/acceptance and Type tests as per the relevant standards. All Type tests as per latest IS / IEC shall have been carried out on the RMU as a whole as per relevant IS/IEC. Following tests shall be necessarily conducted on the equipment and its components as specified in IEC 62271-200:		We shall be conducting routine tests in the manufacturing facility at our works , type test reports shall be submitted for your review.	OK
67	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		7.1.17	Partial Discharge test on CB & LBS		Partial Discharge is not part of the mandatory type test for the switchgear , its part of the routine test conducted on the switchgear.	OK

## Tata Power Northern Odisha Distribution Limited, Balasore

## Pre-Bid Tech-Comm Query Response NIT-023, 11kV RMU

SN	Document Reference	Page Ref	Clause Ref	Requirement as per Tender	Amendment Proposed	Justification	TPNODL Remarks
68	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		7.1.24	Capacitive current switching test		Not applicable for RMU.	OK
69	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		7.3	For smart RMU compatibility & data integration check after operations, alarms and reset check Relay testing- Relay testing should be done with primary injection kit on installed relay. Temperature sensor check		Not applicable as there is no SMART RMU in the offer	OK
70	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		12	It is preferred that the service engineer present during installation shall arranged to provide the operation training of RMU to the staff during installation and inform about the critical points. In addition to this for new bidder, new product or change in design the bidder has to provide minimum 12 training sessions one at each district office of TPNODL		We will provide one training session for all district offices coming under TPNODL.	Need to comply as per TPNODL Remarks in Tender
71	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY		19	f) Arc path drawing of all variants offered		Kindly note that the mechanical design of the product is part of manufacturer's intellectual property and hence cannot be shared. However Sample GA is attached for reference	OK
72		8 of 41	5.2.10	Mechanical interlocking systems shall prevent access to the operating shaft to avoid all operator errors such as closing the earth switch when the Load break switch is closed and when cable is charged.	Mechanical interlocking systems shall prevent access to the operating shaft to avoid all operator errors such as closing the earth switch when the Load break switch is closed and when cable is charged.	Load break switches are fitted with VPIS which is manually operated device that gives visible indication for presence of voltage in the LBS. A field operator should always activate the VPIS to confirm whether Voltage is presence or not before operating the LBS to Earth. Coupled with the mechanical interlocking of the cable compartment for earth position- this methodology is the industry accepted standard procedure. Request you to accept the same.	OK
73		9 of 41	5.2.14, (7)	The RMU metal parts shall be greater than 2mm thickness high tensile steel/CRCA.	The RMU metal parts shall be greater than or equal to 2mm thickness high tensile	The RMU Metal parts shall be made of 2mm GI/CRCA as per our type tested design. Request you to accept the same	OK

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## Pre-Bid Tech-Comm Query Response NIT-023, 11kV RMU

SN	Document Reference	Page Ref	Clause Ref	Requirement as per Tender	Ammendment Proposed	Justification	TPNODL Remarks
74		11 of 41	5.4.9	The LBS shall be fitted with an electrical operating mechanism and can remotely open-disconnected, closed and earthed from a reserved location.	The LBS shall be fitted with an electrical operating mechanism and can remotely open-disconnected, closed and earthed from a reserved location.	LBS shall be fitted with an electrical mechanism and it is possible to remotely open-disconnected, closed. Earth switch is manually operated & it can operate locally, and we understand reserved location means location of RMU. Please clarify?	OK Reserve location is from SCADA
75		12 of 41	5.5.4	In view of safety each VCB shall be assisted with feeder side disconnector having 3 positions	In view of safety each VCB shall be assisted with feeder side or busbar side disconnector having 3 positions	Our RMU shall have feeder side vacuum circuit breaker as per our type tested design and last supplies to TPCODL. Request you to accept the same.	Compatibility will be checked during technical evaluation
76		12 of 41	5.5.8	The vacuum interrupter shall withstand 10-7 milli-bar Vacuum Pressure ensuring high quality vacuum for interruption and shall have Copper Chromium Arcing Contacts. The interrupter manufacturing unit shall have shall be single Shot brazing and have high First pass Yield. (Shall be part of Bidders own vendor evaluation criteria)	The vacuum interrupter shall withstand 10-6 milli-bar Vacuum Pressure ensuring high quality vacuum for interruption and shall have Copper Chromium Arcing Contacts.	The vacuum pressure inside the Vacuum Interrupter is 10-6 milli-bar. Please accept the same.	OK
77		12 of 41	5.5.11	The circuit breaker shall include three toroid transformers incorporated in the transformer tee-off bushings	The Circuit Breaker shall include three nos cast resin transformer mounted on bushing or cable.	The RMU shall have Resin cast current transformer mounted on cables in circuit breaker compartment of RMU. CT mounting on cable or bushing is as per manufacturer design.	OK
78		13 of 41	5.5.18	Please refer Specification no. ENG-HV-95 for Self power relay for RMU feeder protection. The preferable make of relay are ABB, Ashida, Schneider, Siemens make relay.	The preferable make of relay are ABB, Ashida, Schneider, Siemens, C&S make relay.	Please accept C&S Make Relay also as we have supplied RMUs with C&S make relay also. Provide the specification No. ENG-HV-95.	Not Acceptable

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## Pre-Bid Tech-Comm Query Response NIT-023, 11kV RMU

SN	Document Reference	Page Ref	Clause Ref	Requirement as per Tender	Ammendment Proposed	Justification	TPNODL Remarks
79		15 of 41	5.6.11	The cable cover door shall be pad lockable.	Cable cover door shall be open only when cable is earthed.	The Cable door shall be mechanically interlocked with respective LBS/VCB feeder of RMU and can be opened only in earth position for operator's safety. Request you to accept the same.	OK
80		17 of 41	b	There should be electrical interlock of cable presence indicator and operation of earth switch in RMU incomer cable compartment of LBS.		Earthing switch is manually operated device therefore provision of electrical interlock of voltage presence indicator & earth switch is not a standard feature in our design. Further we wish to state that the earth switch is with making capacity thus ensuring operator's safety.	OK
81		17 of 41	5.8.2	There should be electrical interlock of cable presence indicator and operation of earthswitch in RMU incomer cable compartment of LBS.		Load break switches are fitted with VPIS which is manually operated device that gives visible indication for presence of voltage in the LBS. A field operator should always activate the VPIS to confirm whether Voltage is presence or not before operating the LBS to Earth. Coupled with the mechanical interlocking of the cable compartment for earth position- this methodology is the industry accepted standard procedure.Request you to accept the same.	OK
82		20 of 41	5.11. A(f)	Both the LBS should be wired up for auto changeover scheme. And CB to be wired up for Autorecloser Scheme/feature.		Please clarify changeover scheme is required or not. If changeover scheme is required then RMU shall be motorised with FRTU.	No FRTU, motorised operation locally with Push buttons
83		23 of 41	5.11 (8)	4G modem for communication of data (Approved Make- ABB Viola as on date of release of document) 4G modem Model to be mentioned		Wherein you are asking for the Modem. Is the RMU is with FRTU? Please provide the specification of FRTU.	No FRTU

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## Pre-Bid Tech-Comm Query Response NIT-023, 11kV RMU

SN	Document Reference	Page Ref	Clause Ref	Requirement as per Tender	Ammendment Proposed	Justification	TPNODL Remarks
84		25 of 41	5.13 (30)	In each cable compartment each bushing shall have temperature sensors. The temperature data should be shown on one common display unit and shall be communicated to SCADA in motorised and Smart RMU.	Deleted	Temperature sensor on bushing is not available. Request you to accept the same.	OK
85		26 of 41	5.13 (31)	Total height of the indoor RMU should be <1900mm	Total height of the indoor RMU should be <1950mm	Total Height shall be 1942mm with the base frame of 60 mm. Request you to accept the same.	OK
86		27 of 41	7.1	Type Tests		Below tests are currently not available with us 1. Single phase test on CB 2. Double Earth Fault test on CB	Share type test report to review, as per IEC all type test report to be submitted
87		17	Annexure-1 (S.No.1),	1.Rate contract for supply of 11kV 4way RMU Outdoor type in TPNODL Area. 2.Rate Contract for Supply of 11kV 3Way (2LBS+1Breaker) RMU Outdoor Type in TPNODL Area. 3.Rate contract for Supply of 11kV 3Way(1LBS+2Breaker) RMU Outdoor Type in TPNODL Area		Please confirm, the RMU shall be 1. Extensible or Non extensible? 2. Battery charger required or not? 3. Metering PT required or not? 4. Auxilliary PT required or not? 5. RMU shall be Motorised, Non Motorised or Smart RMU. 6. FRTU is required or space for FRTU is required.  Also clarify the configuration of 4way RMU.	RMU shall be 1. Non extensible 2. Battery charger not required 3. Metering PT not required 4. Auxilliary PT not required 5. RMU shall be Non Motorised 6. FRTU is not required 4way RMU.(2LBS+2CB)
88		Pg. No 7 of 162 1.4 Mandatory		Drawing, Type Test details along with a sample of each item as specified at Annexure I (as applicable)		Drawing, Type Test Report will be submitted. However, submission of sample item is not possible	OK
89		Pg. No 8 of 162 1.7 Qualification		The bidder should procure equipment & services from the Manufacturers Approved /authorized by TPNODL.		We are the manufacturer of the tender item. Kindly share TPNODL approved list of service provider.	Discuss in Technical Evaluation



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SN	Document Reference	Page Ref	Clause Ref	Requirement as per Tender	Ammendment Proposed	Justification	TPNODL Remarks
90		Pg. No 10 of 162 3.1 Bid Submission Signing of Bid		The bid must contain the name, residence and place of business of the person or persons making the bid and must be signed and sealed by the Bidder with his usual signature.		Considering current situation we are adapting minimum paper transaction. In view of which, please allow us to sign the documents through digital signature format other than hard copy signature.	Ok, Considering the conditions, ARIBA accepting the same
91		Pg. No 11 of 162 3.1 Price Bid		The bidder shall complete the appropriate Price Schedules included herein, stating the Unit Price for each item & total price with taxes, duties & freight up to destination at various sites of TPC. The all-inclusive prices offered shall be inclusive of all costs as well as Duties, Taxes and Levies paid or payable during the execution of the supply work, breakup of price constituents.		As per clause 3.3 Price bid and Annexure - I, Note - 4. The unit Ex-Work price should be inclusive of Freight & Insurance. We request to amend the Price Bid with separate column for Freight & Insurance. Also, TCS column is missing, kindly add it to in amended price bid.	As per tender only
92		Pg. No 12 of 162 3.9 Type Test		The type tests specified in TPC specifications should have been carried out within five years prior to the date of opening of technical bids and test reports are to be submitted along with the bids. If type tests carried out are not within the five years prior to the date of bidding, the bidder will arrange to carry out type tests specified, at his cost. The decision to accept/ reject such bids rests with TPC		As per Central Electricity Authority guideline the validity of type test for medium voltage switchgear is for 10 years, attached copy for your reference. Furthermore, we confirm that there is no change in offered design.	OK but there should not be any change in design
93		Pg. No 12 of 162 4.2 Technical Bid Opening		The technical bid of the bidders who have furnished the requisite EMD will be opened, one by one. The salient particulars of the techno commercial bid will be read out at the sole discretion of TPNODL.		Will the result of Technical bid opening share on TPNODL website	As per TPNODL decision & conditions
94		Pg. No 13 of 162 5.0 Award Decision		TPNODL reserves all the rights to award the contract to one or more bidders so as to meet the requirement or nullify the award decision without assigning any reason thereof.		What will be the ratio quantity of L1 bidder against other bidder.	As per TPNODL requirements
95		Pg. No 14 of 162 7.1 Special Conditions of Contract		Within 15 days of Rate Contract issuance by TPNODL, it is the responsibility of BA to get manufacturing clearance and CAT-A issued from TPNODL. In case BA does not get necessary approvals for issuance of CAT-A within mentioned timelines, then TPNODL reserve the right to cancel issued rate contract / release order and also reserve the right to forfeit EMD / PBG.		We will submit the detailed engineering drawing within 15 working days after issue of RC for approval. However, manufacturing clearance & drawing approval is depend on TPNODL & its approval should not effect forfeit EMD / PBG.	Successful bidder shall submit the drawing within 7 days from date of issuance of RC. Further, bidder shall submit the clarification within 3 days from date of query raised by technical team-TPNODL regarding drawing approval. In case, there will be delay on account of these timelines on BA part, same shall be considered in total delivery period.

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SN	Document Reference	Page Ref	Clause Ref	Requirement as per Tender	Ammendment Proposed	Justification	TPNODL Remarks
96		Pg. No 14 of 162 7.5 Payment Terms		On delivery of the materials in good condition and certification of acceptance by certified official		What are the condition for issuing certification of acceptance by certified official	Material will be accepted if found physically ok, However if there will be any ambiguity/fault occurs during warranty period vendor will responsible for the same.
97		Pg. No 17 of 162 Annexure -1		Description		As per technical specification pg 126/162 Functional requirement, which variant of 4 way is required.	4 Way (2LBS+2CB)
98		Pg. No 18 of 162 Annexure -1		Note: The quantity mentioned above is for evaluation purpose only and may vary during the execution. Release Orders against this Rate Contract shall be issued by TPNODL as per actual requirement		What will be the qty variation +/- 10% or different	Since this is a rate contract so RO will be issued as per the requirement. However if need further value enhancement in the RC vendor acceptance will be taken.
99		Pg. No 18 of 162 Annexure -1		Note: Delivery of material shall be in Odisha and same shall be mentioned in respective release order.		Kindly share store address, this will help to consider Freight amount	TPNODL Main Store, Balia, Balasore
100		Pg. No 20 of 162 Annexure -IV		1c. Inclusive of Excise Duty 1d. Sales tax applicable at concessional rate 1e. Octroi payable extra		Please note that Excise Duty, Sales Tax, are replace by GST. Octroi is not applicable. Kindly change accordingly and issue amended Annexure - IV	Put it as per actual.

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SN	Document Reference	Page Ref	Clause Ref	Requirement as per Tender	Ammendment Proposed	Justification	TPNODL Remarks
101		Pg. No 21 of 162 Annexure - V		17. Credit rating/ Solvency certificate		We are sharing audit balance sheet and Turnover Certificate in that case is it mandatory to submit Solvency certificate or exemption is allow	CA Certified Solvency Certificate will be applicable only, exemption is not available now.
102		Pg. No 122 of 162 T.S.RMU 1.0 Scope of RMU		This specification covers the technical requirements of design, manufacture, testing at manufacturer's works, packing, forwarding, supply and unloading at site/store and performance of 11kV Ring Main Units with various configurations in Non-motorized, Motorised and Smart RMU along with all accessories and necessary training for trouble free & efficient performance		Please confirm requirement is for Non-motorized, Motorised RMU. What is mean by Smart RMU. Are you required extra accessories? What kind of training & no of days are required. Please clarify.	All RMUs are non motorised
103		Pg. No 124 of 162 T.S.RMU 3.0 Climatic Conditions of Installation of RMU		2.Maximum ambient air temperature 50°C		The Offered RMU is designed for 630A at max ambient temp of +40 Deg C with temperature rise as per relevant IEC. The suitable current derating is applicable at higher temperature.	Pl share the exact details of derating
104		Pg. No 126 of 162 T.S.RMU 4.1 RMU Configurations		Provision for future motorization on of LBS and CB should be kept in configuration while designing RMU for non-motorized units		Kindly clarify LBS & CB to be manual or motorized	All RMUs are non motorised
105		Pg. No 128 of 162 5.0 General construction of RMU & 5.1.11.6		5.1.2The main tank shall be of Stainless steel grade 304 or better		Kindly allow as per manufacturer Type Tested Designed. As per early supplied to TPCODL.	Share the exact details

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SN	Document Reference	Page Ref	Clause Ref	Requirement as per Tender	Amendment Proposed	Justification	TPNODL Remarks
106		Pg. No 129 of 162 General Details		5.2.4 The position of power contacts and earthing contacts clearly visible on the front of RMU		All contacts are in sealed SS tank. Cladding is provided over the tanks housing the interlocks with front panel. Mechanical Position indicators are provided on the front mimic without transparent covers.	OK
107		Pg. No 130 of 162 General Details		Minimum Operation class of RMU components, LBS- E3,M1		As per IEC Minimum Operation class of RMU components, LBS- E2,M1	Not Acceptable
108		Pg. No 132 of 162 5.4 Incomer Load Break Switch (LBS)		5.4.1 The position of the power contacts and earthing contacts shall be clearly visible on the front of the RMU.		All contacts are in sealed SS tank. Cladding is provided over the tanks housing the interlocks with front panel. Mechanical Position indicators are provided on the front mimic without transparent covers.	OK
109		Pg. No 132 of 162 5.4 Incomer Load Break Switch (LBS)		5.4.3 The disconnector should have the maximum 200micro ohm contact resistance		Kindly allow, as per manufacturer type tested designed	Not Acceptable
110		Pg. No 132 of 162 5.5 Circuit Breaker		5.5.2 The position of the power contacts and earthing contacts shall be clearly visible on the front of the RMU.		All contacts are in sealed SS tank. Cladding is provided over the tanks housing the interlocks with front panel. Mechanical Position indicators are provided on the front mimic without transparent covers.	OK
111		Pg. No 133 of 162 5.5 Circuit Breaker		5.5.6 The Breaker contact resistance should be $\leq 50$ micro ohms		The contact resistance of the circuit breaker will be as per manufacturer's type tested design	Not Acceptable

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SN	Document Reference	Page Ref	Clause Ref	Requirement as per Tender	Ammendment Proposed	Justification	TPNODL Remarks
112		Pg. No 133 of 162 5.5 Circuit Breaker		5.5.10 The operating mechanism shall be compatible for remote/ SCADA operation.		Kindly clarify CB to be manual or motorized.	All RMUs are non motorised
113		Pg. No 133 of 162 5.5 Circuit Breaker		5.5.11 three toroid transformers incorporated in the transformer tee-off bushings		CT shall be mounted on cable in the cable compartment	OK
114		Pg. No 134 of 162 5.5 Circuit		The preferable make of relay are ABB, Ashida, Schneider, Siemens make relay.		Kindly add C&S in approved make of relay	Not Acceptable
115		Pg. No 136 of 162 5.6.11 Circuit Breaker		The circuit breaker and earth switch shall be lockable in the open or closed positions by 1 to 3 padlocks.		Only arrangement for pad lock is provided	Shall be suitable to provide 3 Loto padlocks
116		Pg. No 137 of 162 5.7 Earthing		The RMU outdoor metal clad switchgear enclosure, load Break Switch, VCB, SF6 tank etc. shall be equipped with an tinned copper earth bus throughout all compartments and securely fixed along the base of the RMU with cover.		Kindly allow as per manufacturer Type Tested Designed. As per early supplied to TPCODL.	Kindly share the details of Cooper bus
117		5.1.13 Paint		Sufficient quantity of touch-up paint shall be furnished for application at site.		Please note no separate paint will be supply along with the unit	OK
118		Pg. No 152 of 162 8.0 Type Test Certificate		Type tests shall have been conducted in certified Test laboratories during the period not exceeding 5 years from the date of opening the bid		As per CEA guideline the validity of type test for medium voltage switchgear is for 10 years, attached copy for your referemnce. Further we confirm that there is no change in offered design.	Shall be discussed in Technical evaluation
119		Pg. No 153 of 162 9.0 Pre Dispatch				Final inspection of the RMU shall be conducted at our Factory. All cost towards the To & Fro, lodging, boarding, local conveyance will have to be borne by TPNODL	Ok

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SN	Document Reference	Page Ref	Clause Ref	Requirement as per Tender	Ammendment Proposed	Justification	TPNODL Remarks
120		Pg. No 153 of 162 11.0 Guarantee				Guarantee / Warrantee shall be 48 months from the date of commissioning or 60 months from the date of supply, whichever is earlier. We shall undertake to repair / replace free of cost the products supplied, should it become defective under proper use due to faulty materials or workmanship. However any rectification of a defect caused due to mishandling of the equipments shall be charged extra at actuals to your account. Chain Guarantee / Warranty shall not be applicable. The warranty period for repaired / modified shall not exceed the base warranty period.	Warranty period -60 months shall be applicable from date of receipt of material by TPNODL in good condition
121		Pg. No 154 of 162 11.0 Guarantee		3.0 Bidder 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 Purchaser.		Any guarantee beyond guarantee period is not acceptable	Not acceptable
122		Pg. No 154 of 162 12. Packing		No single use plastic to be used in packing material. Packing should be done with environment friendly recyclable materials		Kindly allow as per manufacturer standard practice	OK
123		Pg. No 154 of 162 12. Training		The bidder shall arrange to provide the installation and operating training at TPNODL offices as and when required for better installation and usage of the product.  It is preferred that the service engineer present during installation shall arranged to provide the operation training of RMU to the staff during installation and inform about the critical points. In addition to this for new bidder, new product or change in design the bidder has to provide minimum 12 training sessions one at each district office of		One man day trailing will be arrange via Video call  Service engineer attending the installation work will depend on total qty awarded, no of site.	Need to comply as per TPNODL Remarks in Tender
124		Pg. No 12 of 20 18. Spares, Accessories & Special Tools/Gauges		Bidder has to provide below spare with one lot of RMU		Is this list is mandatory to quote with the bid. If yes, then will it be consider while evaluating the offer. Kindly, also provide price scheule for the same.	PI share required list of spares to finalise requirement
<b>Commercial Queries Response</b>							
1	TPNODL/OT/2021-22/023 Dtd.07.07.21	9 of 162	2.1 Price Variation Clause:	The year wise prices as finalized shall remain firm during the entire contract period		We request you to introduce IEEMA price variation clause in the tender	Price shall be firm as per tender only
2		11 of 162	3.5 Period of Validity of Bids	Bids shall remain valid for 180 days from the due date of submission of the bid		We request you to introduce IEEMA price variation clause in the tender	Price shall be firm as per tender only

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SN	Document Reference	Page Ref	Clause Ref	Requirement as per Tender	Ammendment Proposed	Justification	TPNODL Remarks
3		14 of 162	7.1 Special Conditions of Contract	BA will ensure & co-ordinate with TPNODL team for approval of CAT-A / drawing / GTP within 15days from issue of RC.		Shall submit the drawings for approval within 10 days from the date of receipt of RC Issuance of drawing approval shall be in TPNODL scope	Successful bidder shall submit the drawing within 7 days from date of issuance of RC. Further, bidder shall submit the clarification within 3 days from date of query raised by technical team-TPNODL regarding drawing approval. In case, there will be delay on account of these timelines on BA part, same shall be considered in total delivery period.
4		14 of 162	7.1 Special Conditions of Contract	Delivery period shall be 10-12 weeks from the approval of GTPs and drawings BA needs to submit drawings within 10 Days from award		Noted Delivery shall be 30 Qty per month	Delivery period shall be 12 weeks from date of issuance of order. However, Bidders shall submit the drawing within 7 days as mentioned in above point.
5	Annexure VII General Conditions of Contract	28 of 162	4.0 Scope of Work	Completeness: Any supplies and services which might have not been specifically mentioned in the Contract but are necessary for the scope mentioned in Special Terms & Conditions and/or completeness of the works at the highest possible level, including any royalties, license fees & compensation to be paid, whether incurred by the associates or by a third party for the work covered in the scope, regardless of when incurred, shall be supplied/provided by the associate without any extra cost and within the time schedule for efficient, smooth and satisfactory operation and maintenance of the works at the highest possible level under Indian conditions (but according to international standards for facility of this type), unless expressly excluded from the scope of supplies and services in this Contract.		Scope for this package is only design, manufacture, testing at manufacturer's works, packing, forwarding, supply and unloading at site Clause 4.0 is not applicable for this package since the scope is only supply of RMU's	Bidder scope - Complete Design, Supply, loading, unloading transportation (from factory to TPNODL site) will be in bidder scope.
6		35 of 162	11.2 Facilitating Inspection	The Associate shall provide free of charge office accommodation, office facilities, secretarial services, communication facilities, general and drawing office stationary, etc. as may be reasonably required by the TPNODL's engineers. Similarly, facilities shall also be provided by Associate's outsource agencies/partners/authorized dealers (collectively termed as sub associates) if such basic and detail engineering activities are carried out in the design offices of sub-Associates		Clause 11.2 is not applicable All expenses shall be borne by TPNODL	As per tender only
7		37 of 162	12.2 Right to Rejection on Receipt	Goods/Material/Equipment delivered in condition physically damaged & incomplete as a product ordered, or not packed and transported as per the terms and conditions of the contract is liable to be rejected		Any such rejections shall be brought to our notice immediately in writing, we shall examine the same & take action as per mutual agreement	Ok
8		39 of 162	13.3 Failure in Guarantee Period (GP)	If Associate fails to repair/rectify/replace the equipment or material supplied rendered under the contract, failed in Guarantee Period, TPNODL will be at liberty to get the same done at Associate's risks and costs and recover all such expenses plus the TPNODL's own charges (@ 20% of expenses incurred), from the Associate or from the "Security cum Performance Deposit" as the case may be.		Clause 13.3 is not acceptable In case such situation arises, expenditure for rectification shall be discussed & agreed mutually	Limitation of Liability shall be 100% of Contract value. Any deviation regarding this clause is not acceptable.
9		39 of 162	13.6 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		Latent defects shall only include inherent design defects and no other defect. Hidden manufacturing defect will not be included in latent defect.	Not acceptable. It shall be firm as per tender. Any deviation against this clause; bid shall be liable for rejection
10		40 of 162	14.0 LIQUIDATED DAMAGES	For delay of each week and part thereof from the delivery schedule specified in the contract, 1% of contract value corresponding to undelivered quantity, provided full quantity is supplied within 130% of the original contract time. If full contractual quantity is not delivered within 130% of contract time for delivery, TPNODL has the right to levy LD on the entire contract value, subject to a maximum of 10% of the total contract value.		Any delay attributed to the supplier beyond agreed date of delivery will attract Liquidated Damage (LD) if agreed to at the time of order, as a genuine pre estimated losses and not as penalty, @0.5% per week or part thereof subject to maximum 5% of the undelivered portion of the order value. However, in case of any delay for the reason not attributable to the supplier or even, force majeure conditions, the provision of liquidated damages shall not apply. Liquidate Damages shall be the exclusive and the sole remedy available to the purchaser under this contract, tort or any other law applicable for the time being	Not acceptable. It shall be firm as per tender. Any deviation against this clause; bid shall be liable for rejection

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SN	Document Reference	Page Ref	Clause Ref	Requirement as per Tender	Ammendment Proposed	Justification	TPNODL Remarks
11		42 of 162	17.0 INTELLECTUAL PROPERTY RIGHTS	If, in the course of performance of its functions and duties as envisaged by the scope of the present GCC, the Associate acquires or develops, any unique knowledge or information which would be covered, or, is likely to be covered within the definition of a trademark, copyright, patent, business secret, geographical indication or any other form of intellectual property right, it shall be obliged, under the terms of this present GCC, to share such knowledge or information with the TPNODL. All rights, with respect to, or arising from such intellectual property, as afore mentioned, shall solely vest in TPNODL.		Any intellectual property developed or acquired by Associate during course of contract shall be owned by Associate. TPNODL will have such rights as granted by Associate in the intellectual property so developed as may be necessary for the use of Associate's products by TPNODL	Ok
12		42 of 162	18.0 INDEMNITY	The Associate assumes responsibility for and shall indemnify and save harmless the TPNODL from all liability, claims, costs, expenses, taxes and assessments including penalties, punitive damages, attorney's fees and court costs which are or may be required to be paid by the TPNODL and its officers, directors, employees, affiliates, agents, successors and assigns arising from any breach of the Associate's obligations under the Contract or for which the Associate has assumed responsibilities under the Contract including those imposed under any local or national law or laws, or in respect to all salaries, wages or other compensation for all persons employed by the Associate or his Sub-Associates or suppliers in connection with the performance of any work covered by the Contract.		The Associate assumes responsibility for and shall indemnify and save harmless the TPNODL from all liability, claims, costs, expenses, taxes and assessments including penalties, punitive damages, attorney's fees and court costs which are or may be required to be paid by the TPNODL and its officers, directors, employees, affiliates, agents, successors and assigns arising from any breach of the Associate's obligations under the Contract or for which the Associate has assumed responsibilities under the Contract including those imposed under any local or national law or laws, or in respect to all salaries, wages or other compensation for all persons employed by the Associate or his Sub-Associates or suppliers in connection with the performance of any work covered by the Contract.	Not acceptable. It shall be firm as per tender. Any deviation against this clause; bid shall be liable for rejection
13		43 of 162	19.1 Liability	Except for any specific liability which may be identified in the Contract and which may be payable hereunder, Associate shall not be liable for any special, incidental, indirect, or consequential Damages or any loss of business Contracts, revenues or other financial loss (or equivalents thereof no matter how claimed, computed or characterized) arising out of or in connection with the Performance of the Work or supply of Goods unless caused by Associate's negligence, willful misconduct or breach of contract.		Except for any specific monetary value liability which may be identified in the Contract and which may be payable hereunder, Associate shall not be liable for any special, incidental, indirect, or consequential Damages or any loss of business Contracts, revenues or other financial loss (or equivalents thereof no matter how claimed, computed or characterized) arising out of or in connection with the Performance of the Work or supply of Goods unless caused by Associate's gross negligence, willful misconduct	Ok
14		43 of 162	19.2 Limitation of Liability	The total liability of Associate against any contract shall be limited to the Total All Inclusive Contract Value.		Notwithstanding any other provision to the contrary, the total liability of Associate under this contract shall be limited to the total all inclusive contract value	Limitation of Liability shall be 100% of Contract value. Any deviation regarding this clause is not acceptable.
15		48 of 162	22.3 Termination for Convenience of TPNODL	TPNODL at its sole discretion may terminate the contract by giving 30 days prior notice in writing or through email to the Associate. TPNODL shall pay the Associate for all the supplies/ services rendered till the actual date of contract termination against submission of invoice by the Associate to that effect.		In case of termination for convenience of TPNODL or cancellation of project, Associate shall also be paid for the cost of actual executed work for WIP project along with supplies/services rendered until date of termination	Only executed part shall be paid by TPNODL. however, subject to reason of the same attributed to TPNODL part only.
16		48 of 162	24.0 ATTRIBUTES OF GCC 24.1 Cancellation	The Company reserves the right to cancel, add, delete at its sole discretion, all or any terms of this GCC or any contract, order or terms agreed between the parties in pursuance without assigning any reasons and without any compensation to the Associates.		In case of termination for convenience of TPNODL or cancellation of project, Associate shall also be paid for the cost of actual executed work for WIP project along with supplies/services rendered until date of termination	Only executed part shall be paid by TPNODL. however, subject to reason of the same attributed to TPNODL part only.
17		49 of 162	26.0 TRANSFER OF TITLES	However, such passing of title of ownership and property to the TPNODL shall not in any way absolve, dilute or diminish the responsibility and obligations of the Associate under this Contract including loss or damages and all risks, which shall vest with the Associate.		Loss, theft, damages occurred during the storage, handling of the product (Transportation to site, erection, installation) shall not be covered under the responsibility of associate	Not acceptable. Till HOTO it shall be under bidder scope.
18	SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY	1 of 41	1.0 Scope	This specification covers the technical requirements of design, manufacture, testing at manufacturer's works, packing, forwarding, supply and unloading at site/store and performance of 11kV Ring Main Units with various configurations in Non-motorized, Motorised and Smart RMU along with all accessories and necessary training for trouble free & efficient performance.		Scope for this package is only design, manufacture, testing at manufacturer's works, packing, forwarding, supply and unloading at site	Bidder scope - Complete Design, Supply, loading, unloading transportation (from factory to TPNODL site) will be in bidder scope.
19		3 of 41	3.0 CLIMATIC CONDITIONS	The design of equipment and accessories shall be suitable to withstand seismic forces corresponding to an acceleration of 0.1 g.		The foundation/plinth of the RMU has to be designed suitably by the end user, in that cases the RMU would be able to withstand the shocks that will be experienced in the seismic zone	As per tender only



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SN	Document Reference	Page Ref	Clause Ref	Requirement as per Tender	Ammendment Proposed	Justification	TPNODL Remarks
20		4 of 41	4.0 GENERAL TECHNICAL REQUIREMENTS OF RMU:	14 Opening time of breaker (max.) without relay time 2.5 cycle		Approx. 40-80 ms	Shall be less than 60 ms
21		4 of 41	4.0 GENERAL TECHNICAL REQUIREMENTS OF RMU:	15 Closing time of breaker (max.) without relay time 3 cycle		Approx. 40-70 ms	OK
22		4 of 41	4.0 GENERAL TECHNICAL REQUIREMENTS OF RMU:	Contact martial in Vacuum bottle- Copper chromium with silver plating or better		Solid Copper Chormium without silver plating	OK
23		4 of 41	4.0 GENERAL TECHNICAL REQUIREMENTS OF RMU:	Make of vacuum bottle		Make: ABB India Ltd Type: VG5	OK
24		9 of 41	5.2 GENERAL DETAILS	5.2.11 opening of panel covers is only possible with special tools which shall be provided by the Bidder as mandatory spare/tool.		No Special tools are envisaged to open the panel covers for offered RMU	Share the details
25		9 of 41	5.2 GENERAL DETAILS	5.2.14 The terminal bolt used in LBS compartment shall have 15mm longer than regular bolt		We shall provide M16 bolts as per manufacturer standard Request to give more clarification for using the more lengthier bolt	Shall be suitable for proper connection with Cable Lug
26		12 of 41	5.5 Circuit Breaker For Transformer / Local Feeder Control	5.5.24 Wiring for auto-reclosing operation of CBs through relay to be done. (Reclosing shall be only done with 10 sec. delay programed in relay)		Request you to pls confirm the make & model of relay to be used for this function	Self powered relay Ashida
27		20 of 41	5.11 Remote Control of the RMU & other requirements	e) The On/Off Push button of LBS and VCB shall be Illuminated type with inbuilt LED indicating presence of electrical supply.		We shall provide non illuminated push buttons for LBS & VCB	Two contacts in series shall be used for LBS/VCB On/off control cmd
28		20 of 41	5.11 Remote Control of the RMU & other requirements	h) 1 No. Surge Protection Device to be provided for the relay communication ports for protection from external surge.		Request you to pls confirm the make & model of relay to be used for this function	Self powered relay Ashida
29		31 of 41	8.0 TYPE TEST CERTIFICATE	Type tests shall have been conducted in certified Test laboratories during the period not exceeding 5 years from the date of opening the bid.		11KV RMU's are type tested as per IEC standards Request to accept the valaidity of the Type test reports as per the latest guidelines from CEA Dated: May 2020	Can be discuss in Technical evaluation, submit the deviation accordingly
30		33 of 41	14. TRAINING	The bidder shall arrange to provide the installation and operating training at TPNODL offices as and when required for better installation and usage of the product.		Pls confirm the number of days to be considered for training	3 Days Tarining Program along with online assistance will be sufficient at TPNODL premises.
31		17 of 162	ANNEXURE-I Schedule for Items	RATE CONTRACT FOR Supply of 11kV-4Way RMU Outdoor Type in TPNODL Area		As per Clause 4.1 - Page No: 4 of 41 of SPECIFICATION OF 11kV RING MAIN UNITS - 3W, 4W and 5 WAY There are three 4 way configurations pls confirm which one to quote iii) 4 Way with 2CB (For Indoor and Outdoor application): Both side extensible 2 Nos. 630A Load Break Switches + 2 Nos. 630A Feeder Vacuum Circuit Breakers with self powered O/C + E/F relays + shunt trip coil + 1 No. Electronic Fault Passage Indicator in left side LBS in each RMU iv) 4 Way with 2CB (For Indoor and Outdoor application): 2 Nos. 630A Incomer Load Break Switches + 2 No. 630A Local Feeder/transformer Control Vacuum Circuit Breaker with self powered O/C + E/F relays+ shunt trip coil+1 No. Electronic Fault Passage Indicator and 1Cx 630 sq mm cable provisions in one LBS v) 4 Way with 3 CB Non extension type (For Indoor and Outdoor application): 1 Nos. 630A Incomer Load Break Switch + 3 Nos. 630A Feeder Vacuum Circuit Breakers with self powered O/C + E/F relays + Shunt trip coil + 1 No. Electronic Fault Passage Indicator in left side LBS in each RMU	Outdoor Application 3 Way with 2 LBS + 1 CB 3 Way with 1 LBS + 2 CB 4 Way with 2 LBS + 2CB
32			1.7.2	The bidder should have executed either 100% of the average Order value in line with Clause No.1.7.1 above, during last three years; or single Order of 50% of above value during last three years; or 2 Orders of 30% each of the above value during last 3 Years. Copy of Work Order / Completion Certificate to be submitted in this regard.		We request you to kindly modify the Qualificaiton Criteria as below The bidder should have executed either 100% of the average Order value in line with Clause No.1.7.1 above, during last Seven years; or single Order of 50% of above value during last Seven years; or 2 Orders of 30% each of the above value during last 5 Years. Copy of Work Order / Completion Certificate to be submitted in this regard.	As per tender only
33	STATUTORY COMPLIANCE		9.4 ISO 14001	The vendor to confirm whether their organization is ISO 14001 certified. If not, the Vendor must certify that the handling, use and disposal of their product/ by-products conform to practices consistent with sound environment management and local statues. The Vendor shall ensure that all the wastes are disposal in environmental friendly way with strict compliance to applicable laws including adherence to MoEF guidelines with respect to the disposal of batteries, lead waste, copper cables, ash, waste oil, e-waste etc. which shall be disposed through MoEF approved parties only. The vendor shall also dispose-off the e-waste generated at the end of the product life cycle at its own costs and risk as per the MoEF guidelines/ Orders		We Will Submit ISO-9001-2015 DNV. However we have applied for ISO 14001 Certification. By Nov-2021. We will get the 14001 Certification from DNV. We have attached Prof of Application.	Can be discuss in commercial evaluation

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34		Pg. No 53 of 162 Annexure - B		In accordance with the terms of the said contract, "the Vendor" agreed to furnish you with an irrevocable, unconditional and acceptable bank guarantee for 3% of the value of contract and to be valid till the end of Guarantee period plus one month towards "Contract cum Equipment performance".		The Clause no. 7.1 Special Conditions of Contract specifies a PBG requirement of 5%, kindly clarify	Will be 5% Only