

CENTRALIZED CONTRACTS GROUP**NIT No.: TPCODL/CCG/23-24/100000586****Corrigendum- I****NIT No. : TPCODL / CCG / 2023-24 / 100000586****Rate Contract - Supply of Single Phase Smart Meter (5-30 Amp) with Boxes for
Tata Power Odisha Discoms****Dated 20th March 2024****Following changes in Calendar of Events in page no 5 of tender document is made;****1.3 Revised Calendar of Events:**

(b)	Date by which Interested and Eligible Bidder to pay Tender Fee and confirm participation as mentioned in "Procedure to Participate in Tender"	21.03.2024 [15:00 hrs]
(e)	Due date and time of receipt of Bids	29.03.2024 [15:00 hrs]
(f)	Date & Time of opening technical bids	29.03.2024 [15:30 hrs]
(g)	Date & Time of opening of Price of qualified bids	To be notified to the successful bidders

Following changes in Calendar of Events in page no 14 & 15 of tender document is made;**10.0 Reverse Auction:**

Reverse Auction shall be as per the below approach:

No of bidders allowed to participate in RA process shall be: Total No of bidders on whom tender would be split **PLUS 2** more bidders.**Following changes in Calendar of Events in page no 15 of tender document is made;****11.0 Award Decision:**CCG reserves the right to split the order quantity wise / Line item wise among **4 Nos Bidders**. All bidders are advised to quote their most competitive rates against each line item. However CCG reserves the right to adjust the splitting as per bidders' participation/qualification/any other unforeseen condition in tender.**Following changes in Calendar of Events in page no 18 (ANNEXURE-I: Price Schedule)**

TPCODL

TP Central Odisha Distribution Limited

TPNODL

TP Nothern Odisha Distribution Limited

TPSODL

TP Southern Odisha Distribution Limited

TPWODL

TP Western Odisha Distribution Limited

CENTRALIZED CONTRACTS GROUP**NIT No.: TPCODL/CCG/23-24/100000586****of tender document is made;****ANNEXURE-I : Price Schedule**

Sr No	Item Description	Unit	Quantity	HSN/ SAC Code	Unit Ex-Work Price (Rs. / Unit)	GST (Rs/ Unit)	All Inclusive Unit Rate (Rs.)	Total All Inclusive Value (Rs.)
(A)	(B)	(C)	(D)	(D)	(E)	(F)	(G)	(H)
	Supply of Smart Meters with NIC and Meter Boxes							
1	Single Phase Two Wire, 230V, 5-30 A static Smart Energy Meter	EA	13,10,000					
2	NIC Card	EA	13,10,000					
3	Single Phase Meter Boxes	EA	13,10,000					
Total Package Cost (in Rs.)								

NOTE:

- Prices shall remain Firm.
- The bids will be evaluated commercially on **the Overall Lowest Cost** basis.
- The unit price to be entered in column “F” of above table is exclusive of GST.
- The prices mentioned above shall be on FOR basis for all the TPNODL, TPCODL, TPSODL & TPWODL locations.
- The material shall be delivered as per the location captured in the Release Order.
- The bidders are advised to quote prices strictly in the above format. Failing to do so, bids are liable for rejection.
- The bidder must fill each and every column of the above format. ***Mentioning “extra/inclusive”/other conditions in any of the column may lead for rejection of the price bid.***
- No cutting/ overwriting in the prices is permissible.
- The quantity mentioned above are for evaluation purpose only and may vary as per actual site requirement.

All other terms and conditions of the above tender shall remain unaltered.

Yours faithfully,**-sd-****Head-Contracts
CCG, Bhubaneswar***Property of TPCOD/TPNODL/TPSODL/TPWODL – Not to be reproduced without prior written permission of
TPCOD/TPNODL/TPSODL/TPWODL*

Format for Pre-Bid Queries

Tender No: TPCODL / CCG / 23-24 / 100000586

Tender Description: Rate Contract - Supply of Single Phase Smart Meter (5-30 Amp) with Boxes for Tata Power Odisha Discoms

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
1	2	3	4	5
1	Tender_Smart Meter/ 4.1 / 33 of 315	<p>Disconnecter Switch:</p> <p>a. Default setting 150% of I_{max}</p> <p>2. Operating current range: 20mA to 72A</p> <p>6. Utilization categories: UC2 or better</p>	<p>As per clause 4.1 of specification default setting is 150% of I_{max} for relay connection and disconnection where as in Table no.1 (tamper table) of specification over current tamper occurrence threshold mentioned as 120% of I_{max}. Both the requirements are conflicting. Kindly clarify which threshold is to be considered.</p> <p>* Load switch with UC1 category is enough for 5-30A rating meter which is having maximum current capacity of 45A (150% I_{max}). So kindly accept Load switch with UC1.</p> <p>* If UC2 is mandatory to provide, kindly accept the type test report with UC1 category as per IS1644.</p>	Specification to be complied
2	Tender_Smart Meter / 4.3.3 / 35 of 315	<p>It shall be possible to reconfigure the meters for RTC, TOD slots reprogramming, DIP (Demand Integration period), billing date, display parameters etc. through proper authentication process locally through MRI and remotely over the air (OTA). Meter data should remain intact with timings.</p> <p>And billing should be done whenever any above mentioned attribute is changed. The change should be recorded as upgrade event.</p>	<p>Kindly note that Billing shall be done at the programming of parameter list given in Sr.No.5 of 'Downloadable parameters' in page 64 of 315 of specification as mentioned below. Kindly accept the same.</p> <p>"Billing shall be done at following programming events and programing can be done OTA"</p> <p>a. Metering mode change b. Prepayment mode change c. Communication driven MD reset d. Time zone activation e. Demand integration period change f. Display parameter configuration g. Firmware upgrade "</p>	Specification to be complied
3	Tender_Smart Meter / 4.3.17 / 36 of 315	<p>Communication NIC / network should be immune with any external Magnetic field / ESD/ Jammer/ HV voltage influence such that it shall not affect the normal overall functionality</p>	<p>Kindly note that this requirement shall be complied when meter is installed in meter box</p>	This functionality shall be checked with meter as well as meter with box.
4	Tender_Smart Meter / 4.4.1 / 37 of 315	<p>Abnormal Magnetic field is defined as below;</p> <p>a) Continuous DC magnetic induction: >0.27 Tesla ± 5%(Value of the magneto motive force to be applied shall be generally >10000 AT.</p> <p>b) AC magnetic induction: > 10 milli Tesla (if produced with circular metal core with square cross section as specified in CBIP latest report with 2800 AT)</p> <p>c) Permanent Magnet: Immune up to 0.5T and Event logging >0.5T.</p>	<p>Kindly note that meter shall be either immune or run at V_{ref}, I_{max} & UPF condition and also log the event in case not immune with the application of permanent magnet of 0.5T. Request to kindly accept magnet influence in line with CBIP-325.</p>	As per CBIP 325
5	Tender_Smart Meter / 4.4.2 / 37 of 315	<p>Electrostatic Discharge (ESD):</p> <p>Meter, inside meter box, shall be immune up to 50 kV and shall record accurate energy as per IS 13779:1999 / CBIP-325. Meter shall log the event into memory as 'ESD' with date & time stamp for any ESD greater than 35 kV with snap shot the event logging threshold values as per table no. 1 in 4.6.</p>	<p>Please note that meter shall be immune with application of ESD up to 35kV in line with CBIP-325. Kindly accept the same.</p>	As per CBIP 325
6	Tender_Smart Meter / 4.4.4 / 38 of 315	<p>Meter inside meter box should be immune to high / low frequency Jammer devices.</p> <p>Meter shall log the event in its memory as 'JAMMER' with date and time stamp, the threshold values as per table no. 1 in 4.6.</p>	<p>Meter is immune to Jammer device and the logging of event is not applicable during immune condition, Please accept the immune to high/low frequency jammer devices as offering</p>	Specification to be complied.

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
7	Tender_Smart Meter / 4.4.5 / 38 of 315	The meter inside meter box should be immune or log the tamper on application of any other higher magnetic field of any frequency waves, micro waves like magnetron etc. the threshold values as per table no. 1 in 4.6.	Kindly note that magnetron is a non-standard device and behavior of meter with application of magnetron cannot be guaranteed. Also it may be hazardous to the person who perform the testing. Kindly accept the same.	This clause is deleted
8	Tender_Smart Meter / 4.6.5 / 39 of 315	During abnormal & tamper conditions, the current shall be recorded as active current and line current.	Kindly accept currents in snapshot parameters as per the captured parameter list given in IS 15959 Part-2.	Specification to be complied
9	Tender_Smart Meter / 4.6.8 / 39 of 315	The Cover Open tamper detection should be through heavy duty, sturdy micro switches such that it should not log false event on vibration or impact during handling or testing.	Kindly accept the push button switch alternatively which is heavy duty, sturdy, withstands vibration and considering the GP period of meter which serves the purpose of utility.	Specification to be complied
10	Tender_Smart Meter / 4.8_Component List / 42 of 315	Display modules makes: Taiwan: Holtek Singapore: Bonafied Technologies Korea: Advantek China: Xiamen, Trullysemiconducto	Kindly add 'Holitek & Pixel' makes, since these are reputed make and are having good presence in the India and the lead time is within tie limits for the execution.	Noted
11	Tender_Smart Meter / 4.8_Component List / 42 of 315	Battery: Varta / Tedirun / Vitzrocell / Sanyo or equivalent	Kindly add 'EVE, Panasonic, Mitsubishi' since these are also reputed makes	Noted
12	Tender_Smart Meter / 4.8_Component List / 42 of 315	Temperature sensor shall be internal to the meter and its accuracy shall be as per relevant IEC / IS standards. The OEM test report to be furnished. With good performance till life of meter.	The temperature sensor is in built Micro controller. Kindly accept the same.	Noted
13	Tender_Smart Meter / 5.8.3 / 55 of 315	Name plate and Marking: iv. Serial number (<u>Meter serial number shall be laser printed on name plate instead of sticker</u>). However the following shall be printed in bar code on the meter nameplate (<u>shall be laser printed on name plate instead of sticker</u>). All data shall be laser printed on meter along with Sr. NO and date of manufacturing. No sticker to be used to avoid loss of data in event of fire.	Kindly accept Name plate details with indelible pad printing alternatively.	Specification to be complied
14	Tender_Smart Meter / 5.8.3 / 55 of 315	Bidder should ensure that each NIC provided in meter is having laser printed Sr. No., MFG date, 'Property of TP(C/N/S/W)ODL' marking, PO / RO no.& date (same as that of meter PO / RO	Kindly accept details on NIC with indelible pad printing alternatively.	Specification to be complied
15	Tender_Smart Meter / 7.1(12) / 56 of 315	Acceptance Test: Error measurements with 38 abnormal condition as per annexure I along with magnet, ESD and microwave (if not possible during inspection the meter from lot shall be tested at MTL)	Kindly accept the error measurement with 38 abnormal conditions as per annexure I requirement without magnet, ESD and microwave	Specification to be complied
16	Tender_Smart Meter / 57 of 315	6. Following annexures are added in this document a. Push data list – Annexure-A b. Downloadable parameter list- Annexure-B c. Display parameter list - Annexure-C d. Tamper threshold table- Annexure-D	Request to kindly accept the Display Parameter, Display Navigation and Event logging document along with the Data Model as per previous tender supplies	specification to be complied

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
17	Clause No. 5 Page No. 16	GTP & Drawing: BA shall submit GTP/ Drawing within 07 days from issuance of rate contract	We would like to request that please amend this clause as Bidder shall submit Drawing and GTP for approval process within 2 months due to mutually discussion and testing from both side.	specification to be complied
18	Clause No. 2(b) Page No. 28	IS 13779 : 1999 A.C. Static Watt hour meter class 1.0 and 2.0	We request you to kindly accept revised IS 13779:2020	Noted
19	Clause No. 4.01 Page No. 30	4.01 Single phase two wire, static watt-hour, VAR-hour direct connected type smart meter without application of any Multiplication Constant	We request you to kindly accept the watt hour direct connected type smart meter in place of VAR- hour direct connected type smart meter.	Noted
20	Clause No. 4.04 Page No. 30	<u>Reference Conditions for testing the performance of the meter : Vref = 230 V</u>	We request you to kindly accept Meter voltage rating 240V.	Voltage Rating - 240V (Complies with 230V)
21	Clause No. 4.07 Page No.30	Voltage circuit: Maximum 5.0 W and 15 VA Current Circuit: Max 4VA (The additional power requirement during data transmission shall not exceed 7W per communication module)	Power consumption of the current circuit will be provide as per IS 16444 Part 1.	Power consumption of Voltage & Current Circuit along with NIC shall be as per IS.
22	Clause No. 4.25 Page No.32	In case of meter power failure, the reading / data should be retrieved with the help of battery or other power source	In that case the reading / data will be retrieved with the help of battery by optical port.	Noted
23	Clause No. 4.27 Page No.31	Minimum Internal diameter of the terminal holes 5.5 mm (minimum) Depth of the terminal 22 +1 mm	We request you to kindly accept the Depth of the terminal holes 18±1mm	Noted
24	Clause No. 4.33 Page No.32	Communication module of meter for AMI All the NICs should be same & compatible with all types of meters (single phase/PPWC/LTCT/HT) & should be hot Swappable.	NICs will be same for 3 Ph Whole current, LTCT, HTCT and compatible for each other and The NIC for single phase will be different, it will be as per single phase meter design, which Same as supplied of the single phase meter in TPCODL.	Specification to be complied.
25	Clause No. 4.1 (2) Page No.33	Operating Current range 20 mA to 72 A	Meter rating 5-30 Amp, So Operating Current shall be acceptable range 20 mA to 36 A	Noted
26	Clause No. 4.1 (4) Page No.33	No. of poles – Double pole relay for phase & neutral	We will provide two relay one for phase element and second for neutral element.	Specification to be complied.
27	Clause No. 4.4.1 Page No.37	Abnormal Magnetic field is defined as below: a) Continuous DC magnetic induction: >0.20 Tesla ± 5% (Value of the magneto motive force to be applied shall be generally >10000 AT. b) AC magnetic induction: >10 milli Tesla (if produced with circular metal corewith square cross section as specified in CBIP latest report with 2800 AT) c) Permanent Magnet: Immune up to 0.5T and Event logging >0.5T.	We request you to kindly accept the magnetic test conditions as per CBIP 325.	As per CBIP 325
28	Clause No. 4.4.1 Page No.37	Electrostatic Discharge (ESD). Meter, inside meter box, shall be immune up to 50 kV and shall record accurate energy as per IS 13779:1999 / CBIP-325. Meter shall log the event into memory as 'ESD' with date & time stamp for any ESD greater than 35 kV with snap shot the event logging threshold values as per table no. 1 in 4.6.	We request you to kindly accept the meter either immune or log the event, as per CBIP 325	As per CBIP 325
29	Clause No. 4.4.2 and 4.4.4 Page No.38	4.4.4 Meter should be immune to high/low frequency jammer devices. Meter shall log the event in its memory as 'JAMMER' with date and time stamp, the threshold values as per table no. 1 in 4.6	We request you to kindly accept the meter either immune or log the event, as per CBIP 325	As per CBIP 325
30	Clause No. 4.4.3 Page No. 38	The shielding around the meter inside meter box, shall be such that it does not get affected by high Voltage and high energy or low energy impulse when comes in contact with meter from any side.	We request you to kindly accept the appropriate protection as per the meter design.	Specification to be complied.

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
31	Clause No. 4.4.5 Page No.38	The meter inside meter box should be immune or log the tamper on application of any other higher magnetic field of any frequency waves, micro waves like magnetron etc. the threshold values as per table no. 1 in 4.6.	For Microwave there is no limit and meter may be damaged within fraction of seconds. Microwave based testing may Hazardous to person apply testing. We request you to kindly accept the same and remove this Requirement.	This clause is deleted
32	Clause No. 4.5.3 Page No.38	<u>NEUTRAL DISTURBANCE & OTHER TAMPERS</u> The meter shall record energy proportional to the current and V Ref (230V) when any of the tamper circuits enclosed as per annexure1 are used to tamper energy using any type of diode or a variable resistance or a variable capacitance, energy saving device. Or any DC injection as per 4.5.2.	During neutral disturbance tamper condition,The meter will record energy proportional to the current, V Ref (240V) and UPF, accuracy limit +/- 3%.	Noted, Defraud metering is not required when all the connections are intact & supply voltage is low.
33	Clause No. 4.5.5 Page No.38	Current mismatch – Meter should logged current mismatch event as per thresholds in table no. 1. Priority of logging this event in memory of meter is higher than EL. Further, earth LED shall glow & log event as per its own logic irrespective of this Logic	We request you to kindly accept Earth load indication on meter display.	Noted
34	Clause No. 4.6.1 Page No.38	4.6.1 Meter shall be immune to the influence of Magnet, ESD, Jammer, microwaves as per clause 4.53 during all the tamper conditions of Annexure-I. The meter shall record forward energy under any abnormal conditions as given in the Annexure- I, for all 38 tamper conditions, with above abnormal influencing signals	We request you to kindly accept the meter either immune or log the event, as per CBIP 325	As per CBIP 325
35	Clause No. 4.6.8 Page No.39	The Cover Open tamper detection should be through heavy duty, sturdy micro switches such that it should not log false event on vibration or impact during handling or testing.	The cover open detection will be through carbon pad, it will not log false event on vibration or impact during handling or testing.	Specification to be complied.
36	Cl. No. 5.1.4 Meter Body Page No. 43	Meter cover shall be transparent with polycarbonate LEXAN 143R / 943A or equivalent on prior approval from the TP(C/N/S/W)ODL. (the bidders should submit material data sheet in technical bid)	Top cover opaque, Printing will be provided on Meter Top Cover through laser.	Noted
37	Clause No. 5.1.8 Page No.43 Meter Body	The Meter body shall be such that the liquid or chemical shall not reach the electronic parts if liquid is injected from any side of meter body such as meter terminals, push button, display, NIC card casing Necessary protection and water tight sealing to be provided at terminals and Push buttons etc.	Comply with IP51. However please mention the testing procedure to explore.	Specification to be complied.
38	Cl. No. 5.2.3 – 5.2.4 Terminals and Terminal Block	The material of which the terminal block is made shall be capable of passing the test given in ISO 75 for temperature of 180°C and pressure of 1.8 M Pa. The terminal block shall be of opaque with polycarbonate LEXAN 500R or equivalent on prior approval from the TP(C/N/S/W)ODL. (the bidders should submit the relevant material data sheet in technical bid).	PBT 30% G.F. material will be provided which is passing the test given in ISO 75 for temperature of 180°C and pressure of 1.8 M Pa.	Noted

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
39	Cl. No. 5.2.6 Terminal Screw Page No. 44	The Size of the screw shall be 6mm dia. The material and plating details of terminals screw shall be provided. MS screws shall not be accepted. To get the desired temperature rise & avoid hot spots the design of the each terminal screw shall be Allen head screw & shall be operated with Allen key.	MS Allen Screws will be provided as the brass Allen screws head get damaged after several times tightening of the screw	Specification to be complied. MS screw is not acceptable.
40	Clause No. 5.2.11 Page No.44 TERMINALS, TERMINAL BLOCK	The internal diameter of terminal hole shall be minimum 9.5mm, clearance 10mm and Depth 22mm	The internal diameter of terminal hole shall be minimum 5.5mm, clearance 10mm and Depth 18±1mm	Noted
41	Clause No. 5.3.3 Page No.44 Meter Body	The terminal cover shall be short: 25 mm length from bottom of terminal block in line with meter Base.	The terminal cover will be short: 20 mm length from bottom of terminal block in line with meter base.	Noted'
42	Clause No. 5.6 Page No.46	LOAD SURVEY (FOR PRE-PAID, POST-PAID & NET METER MODE): Meter serial number and NIC serial number shall be recorded and communicated for all profiles of data. The meter shall be capable of recording load profile of 35 days with 15 min integration period for kWh, kVAh, KW, kVA, Voltage, Phase and Neutral current, Metering Current, Power Factor, Temperature (°C) for ON days/time.	Load survey parameters will be provided as per the Block Load Profile of the annexure B which given in the tender specification. KW,KVA, PF will be derived at HES/MDM side only. Meter serial number and NIC serial number will be provided in Name plate profile.	Specification to be complies
43	Clause No. 5.6 Page No.46	Midnight energy value of cumulative kWh, KVAh along with Current (Rising Demand) KW and Current (Rising Demand) KVA along with daily consumption kWh should be available in meter memory for last 35 Days.	Midnight parameters will be provided as per the Daily load profile of the annexure B.	Annexure -B
44	Clause No. 5.7 Page No. 46	INSTANTANEOUS PARAMETERS:	INSTANTANEOUS PARAMETERS will be provide as per the instantaneous Profile of annexure B.	Annexure -B
45	Clause No. 5.8.2 (4) Page No. 54	Load Switch LED indicator-The meter shall be provided with suitable LED indication for condition of load switch (Close / open). LED should show when load switch is open. (Red Colour LED)	Load switch indication will be provided on meter LCD display.	Specification to be complied.
46	Clause No. 5.6 Page No.47	GENERAL INFORMATION: Meter serial number and NIC serial number shall be recorded and communicated for all profiles of data. Meter shall be capable for providing below mentioned general parameters in BCS and HES Meter Serial number Firmware Version Manufacturer's Name Manufacturing Date (MM/YY) Meter Type Meter Class Meter Constant Meter Voltage Rating Meter Current Rating TOD profile	General information will be provided as per the Name Plate profile of annexure B.	Annexure -B

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
47	Clause No. 5.7.2 Page No.47	<p><u>BILLING PARAMETERS:</u> Meter serial number and NIC serial number shall be recorded and communicated for all profiles of data. Both Export-Import mode, below mentioned parameters should be for both Export and Import. 1) Maximum Demand (Reset date, Current Month & 12 History, time zone register wise) a) MD - Abs Active Load/kW b) MD - Abs Apparent 2) Billing Dates (12 History) 3) Cumulative Energy (Reading date Current Month & 12 History, time zone register wise) kWh and kVAh 4) Consumption (Reading date, Current Month & 12 History, time zone register wise) kWh and kVAh 5) Average Power factor (12 History) 6) Mode of operation of dis-connector switch 7) Monthly power ON/OFF hours Last five modes with date & time of switching with cumulative energy parameters of kWh, TOD1 kWh, TOD2 kWh, kVAh, TOD1 kVAh, TOD2 KVAh</p>	The billing parameters will be provided as per billing profile of the annexure B.	Annexure -B
48	Clause No. 5.7.3 Page No.47	<p><u>TRANSACTIONS:</u> All the changes in software of meter to be logged along with date & time stamp and readings. Meter should do billing if any billing related transaction is done.</p>	Transactions will be logged with event ID, date and time as per annexure B. Control (e=6) events	Annexure -B
49	Clause No. 5.8.3 Page No.54	<p><u>NAME PLATE AND MARKING</u> Meters shall have a name plate clearly visible and effectively secured against removal. The name plate data should be laser printed. The base color of Name plate shall be blue(as of TP(C/N/S/W)ODL logo)Indelibly and distinctly marked with all essential particulars as per relevant standards along with the following.</p>	We request you to kindly accept printing details will be laser printed on meter top cover, because meter top cover will be opaque with viewing display window.	Noted
50	Clause No. 5.8.3 Page No.55	<p><u>NAME PLATE AND MARKING</u> Content Format for bar code: TP(C/N/S/W)ODL S.No. XXXXXXXXXX (9-digit Serial no.) Bidder should ensure that each NIC provided in meter is having laser printed Sr. No., MFG date, 'Property of TP(C/N/S/W)ODL' marking, PO / RO no.& date (same as that of meter PO / RO)</p>	Content of the barcode information are large, so we are suggesting for QR code which more information can be provided.	Meter SI No. to be provided in BAR code / QR code
51	Cl. No. 7.2 Meter Box Page No. 57	Meter box shall be of polycarbonate transparent type (Degree of protection-IP55) Cable entry to meter box should be from side and gland should be such aligned that cable should enter meter box in upward direction to ensure that in case of rain water does not enter meter box by flowing along the cable.	Cable entry to meter box will be from bottom side	Specification to be complied.

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
52	Annexure-A ,B Page No. 65	OBIS Codes and profile parameters	OBIS Codes of the profiles (annexure A and B) will be shared at the time of approval document for order.	OBIS codes & TPXODL specific codes shall be shared during detailed engineering as the HES are different for all Discoms. The integration shall be the responsibility of the bidder for retrieval of data through HES for all the profiles.
53	Annexure-C , Page No. 72, Single phase Common Display list for all combinations	Single phase common display list with following combinations 1. Post-paid with TOD 2. Post-paid without TOD 3. Pre-paid with TOD 4. Pre-paid without TOD (default setting)	Display parameters with TOD or without TOD configuration and payment mode (Pre paid or postpaid) both are configuration mechanism will be separate.	Specification to be Complied
54	Annexure-C , Page No. 74 Push Mode Display	Single phase Common Display list for all combinations NIC card status(12nos. error codes)	We will provide a separate display mode (test mode) for the NIC card status (12 nos error codes)	Specification to be Complied
55	Downloadable Parameters Page No. 64	2. Single phase default display parameter shall be configured as Pre-paid without TOD & shall be programmable through HES (OTA) for following combinations. a. Pre-paid without TOD b. Pre-paid with TOD c. Post-paid without TOD d. Post-paid with TOD	Display parameters with TOD or without TOD configuration and payment mode (Pre paid or postpaid) both are configuration mechanism separate.	Specification to be complied
56	Downloadable Parameters Page No. 64	4. Communication LCD indicator -Meter display shall have indication in context to NIC. The blinking should be slow when NIC is detected; blinking should be fast when NIC had searched the network and it should be stable when it is successfully latched to the HES.	We will provide alternate provision for the communication indication.	Specification to be complied
57	Annexure-1, Price Schedule, Page No. 18	Under foot note point no. 3, it is mentioned that the unit price to be entered in column "F" & "G" of above table is exclusive of GST.	Column "F" & "G" are not specified. May kindly be clarified. We understand that all inclusive unit rate and total all inclusive value shall be including applicable GST.	As per Corrigendum-I
58	Clause 1, Page 28	1. SCOPEThere exists separate and distinct HES in 4 Utilities of Odisha. Bidder has to integrate in all 4 pre-existing HES at individual Utilities. The Data table & OBIS codes & Discom Specific codes shall be shared during detailed engineering & integration validation.	It is understood that only successful bidder shall ensure integration with HES of all 4 DISCOMS, instead of all participating bidders.	HES Integration at Bidders Scope. RO will be issued only after successful HES integration & GTP approval. The details of HES available at present each Discom level are as follows; TPCODL- Fluent Grid TPNODL- Schneider TPSODL-Fluent Grid TPWODL- Genus It shall also be in the scope of the bidder in case any other HES shall come in further at TPXODL.
59	Clause 4.3.24, Page 37	It must be noted that HES of 4 Discoms in Odisha are separate and distinct: therefore, the meters have to be seamlessly integrated with the existing HES available at each utility and there shall be no provision of a new HES being opted for by any bidder . All the integration efforts of meters at the 4 utilities and purposes stated here and elsewhere in the specification must take into account this requirement as a part of exercise.	Kindly confirm.	
60	Clause 1, Page 28Single Phase Two Wire, 230V , 5-30 A.....	Meter with Voltage rating of 240V provided. Please accept.	Vref - 240V(Complies with 230V)
61	Clause 4.04, Page 30	Vref = 230 V		
62	Clause 4.11, Page 30	Rated Impulse withstand voltage : 10kV	Impulse withstand Voltage will be 6 KV as per IS 13779.	Specification to be complied, test report to be submitted

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
63	Clause 4.31, Page 31	Display ... 6+1 digits LCD display (not for reading)	The phrase "not for reading" is not understood. Kindly clarify.	KWH display (6digits without decimal)
64	Clause 4.33, Page 32Meter should be able to provide required power supply to NIC provided by communication provider, if separately required, recommended / finalized by TP(C/N/S/W)ODL.	Power supply to communication NIC is provided internally from the meter, hence no additional / separate power supply is required and not provided.	Noted
65	Clause 4.33, Page 32 All the NICs should be same & compatible with all types of meters (single phase/PPWC/LTCT/HT) & should be hot swappable.	NICs are specific to the type of meter and are swappable with same meter type of same manufacturer. As, the requirement is for 1Ph meters only, NIC will be swappable for same make of 1Ph meters.	Specification to be complied
66	Clause 4.1, Page 33	S.No. 6 : Utilization Categories - UC2 or better	UC2 is required for Current Range of more than 60A. For 5-30A rating, UC1 serves the purpose. Kindly accept the same.	Specification to be complied
67	Clause 4.2.2.10, Page 34	The bidder should have back to back Service Level Agreements (SLA) with NIC provider, communication network provider and component suppliers	NIC will be an integral part of the 4G Smart meter (hence SLA not applicable). SIM is not in the Scope of Work for this Tender, hence SLA with communication network provider and any other component suppliers cannot be in OEM's scope.	Specification to be complied
68	Clause 4.3.22, Page 37	TP(C/N/S/W)ODL will hand over the SIM cards to OEM and supply will be accepted with SIM cards already installed	Kindly amend.	Specification to be complied
69	Clause 4.3.3, Page 35	It shall be possible to reconfigure the meters for RTC, TOD slots reprogramming, DIP (Demand Integration period), billing date, display parameters etc. through proper authentication process locally through MRI and remotely over the air (OTA). . . . And billing should be done whenever any above mentioned attribute is changed.	Kindly check and confirm whether Billing should happen when RTC is changed (including RTC synchronization from HES)and/or Display Parameters are programmed.	Specification to be complied
70	Clause 4.4.1, Page 37	Magnetic Field: Meter shall record accurate energy in case of any external influencing signals in line with IS 13779:1999 Cl.11.2 and variation in limits of error (up to 100% I _{max}) shall be as per the table 17 of IS 13779.	Magnetic influence and immunity will be as per CBIP-325.	As per CBIP 325
71	Clause 4.6, Page 39	4.6 ABNORMAL AND TAMPER CONDITIONS TABLE NO.1	Please clarify which Tamper Logic table to be considered.	Annexure- D
72	Annexure-D, Page 75	Tamper threshold table- Annexure-D		
73	Clause 4.6, Page 39	Meter Top Cover Open (TC Open) - immediate - 05 (stay p	We request you to accept Cover Open as No-Rollover type, i.e. single event only	Specification to be complied.
74	Clause 5.4, Page 45	5.4.3. One no polycarbonate seal shall be provided by the TP(C/N/S/W)ODL. This seal shall be fix on right hand side of meter. 5.4.6 For Plug in type NIC card, cover should have proper sealing arrangement and should be sealed with TP(C/N/S/W)ODL polycarbonate seal.	Please confirm whether for each meter, 2 nos. Seal will be provided by TP(C/N/S/W)ODL) - one for Meter Body and one for NIC.	Specification to be complied.
75	Clause 5.7.5, Page 48	AUTO SCROLL / PUSH BUTTON MODE WITH POST-PAID PAYMENT MODE	Please clarify which Display Parameter List to be considered.	Please refer annexure- C
76	Annexure-C, Page 73	Single phase Common Display list for all combinations		
77	Clause 5.7.5, Page 48	Inst. Phase Power Inst. Neutral Power	Inst. Active Channel Power will be provided	Specification to be complied
78	Clause 5.7.5, Page 50	Bidder to provide software to convert meter to any mode over the air by sending command through HES.	Mode change can be achieved with the existing HES (after integration is completed). It will not be in Bidder's scope to provide Software for mode change 'over the air'. Kindly amend.	Specification to be complied
79	Clause 5.8.2, Page 54	5.Phase Indication – Power on indication shall be provided as icon on the LCD.	Phase indication is not applicable for 1ph meters.	Power on indication is required as a icon on LCD instead of LED

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
80	Clause 5.8.3, Page 55	However the following shall be printed in bar code on the meter nameplate.	Please allow printing of QR Code also.	Noted
81	Clause 7.2, Page 57	Box : Cable entry to meter box should be from side and gland should be such aligned that cable should enter meter box in upward direction	Bottom Cable Entry arrangement can be provided. Kindly accept.	Specification to be complied
82	Clause 11, Page 59	SAMPLE: Tendering Stage: Bidders are required to manufacture 04 numbers of sample meters as per the TP(C/N/S/W)ODL specification (sealed, unsealed and openable base and cover to view/test the inner circuits)and submit the samples (non-returnable) along with bid for approval.....	Request allow submission of tender samples within 3 weeks from date of Bid submission, as the time is too short to prepare and submit the Sample meters within the Tender Due date.	As per NIT, Bidders need to provide 2nos. Sample to Meter Testing Lab of TPSODL for necessary sample testing Meter Testing Laboratory, TPSODL, Duduma Colony, Near OPTCL grid, Ambagada, Ganjam-760002 Name: Leena Patel, Mob: 9437570562
83	Clause 11, Page 59	11.SAMPLE: Tendering Stage: Bidders are required to manufacture 04 numbers of sample meters as per the TP(C/N/S/W)ODL specification (sealed, unsealed and openable base and cover to view/test the inner circuits)and submit the samples (non-returnable) along with bid for approval.The tender sample as per IS 13779 & IS 15959 shall be acceptable for verification and other checks. Bidder to demonstrate all communication features during sample testing.	Request allow us to submit tender sample meters with 10-60A during Bid submission. We will ensure submission of Samples with 5-30A rating in the event of OrderPrototype samples.	Specification to be complied
84	GCC - Annex B, Page 104	PROFORMA FOR PERFORMANCE BANK GUARANTEE (CP cum EP) 8. Any claim / extension under the guarantee can be lodge-able at outstation banks or at Bhubaneswar branch and claim will also be payable at Bhubaneswar Branch (to be confirmed by Bhubaneswar Branch by a letter to that effect in case BG is from the branch outside Bhubaneswar).	We request you to kindly amend and remove the requirement of Payability of the BG in Bhubaneswar/local Branch, as any Claim sent by mail is accepted and honoured by the issuing Bank anywhere in the country. This Request is in view of difficulty we are facing in getting the BG's issued with local invocability.	As per NIT
85		Load Switch LED indicator-The meter shall be provided with suitable LED indication for condition of loadswitch (Close / open). LED should show when load switch is open. (Red Colour LED)	The meter will be provided with suitable LCD indication for condition of load switch (Close / open).	Specification to be complied. LED indication required for relay status for ease of identification of connected/disconnected meters by the consumer/field staffs.
87		Battery Lithium with guaranteed life of 15 years	10 years	Specification to be complied
88		Push data list More than as per IS	data Exceeds form single packet so push as in IS 15959_part_2	Specification to be complied
89		Experience The bidder should have manufactured & supplied 2.0 Lakh (Quantity) Number of Smart Meters in last 5 years as on original bid submission date.	Supplied 1.0 Lakh (Quantity) Number of Smart Meters in last 5 years	As per NIT
90	Please refer, Clause no. 5.2.11, 'Terminals, Terminal Block	Internal diameter of the terminal holes shall be minimum 9.5 mm ; minimum clearance between adjacent terminals shall be 10 mm. Depth of the terminal holes shall be of 22 mm. Similarly in clause no. 4.27 "GENERAL TECHNICAL REQUIREMNTS" it is mentioned that Internal diameter of the terminal holes 8.5 mm (minimum) Depth of the terminal holes 22mm.	Comment: - Kindly note that depth of terminal holes shall be 20 to 22mm as per manufacturer design however hole diameter shall be minimum 5.5mm. Kindly accept the same as per IS 13779.	Noted

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
91	Please refer, Clause no. 5.3.3, 'Terminal Cover'	The terminal cover shall be short: 25 mm length from bottom of terminal block in line with meter base.	Comment: - Kindly also accept the terminal cover with 25 to 30mm length from bottom of terminal block in line with meter base. Kindly confirm.	Specification to be complied
92	Please refer, Clause no. 5.2.6, 'Terminals, Terminal Block.	The Size of the screw shall be 6mm dia . The material and plating details of terminals screw shall be provided. MS screws shall not be accepted.	Comment: - Kindly also accept M4 terminal screws with zinc/ brass plating, which is technically suitable for 5-30A rating Meter terminals. The MS screws are tighten at higher torque / force comparatively brass so kindly also accept the same.	MS screw is not acceptable. Nickel / Tinned Plated Brass of 6mm dia to be provided.
93	Clause No. 4.32 Page No.69/181	Calibration: Meters shall be software calibrated at factory and modifications in calibration shall not be possible at site by any means. There shall be provision for firmware update to change payment mode from Prepaid to Postpaid and vice versa; similarly for metering mode from Import only to Export-Import (NET mode) and vice versa, through proper authentication process remotely over the air (OTA). The change should be recorded as Transaction event. Billing should be done at that time of firmware upgrade so that readings at which this upgrade has happened are logged in meter and system. Display update shall be done accordingly remotely.	Both payment method and metering mode will be configurable as per IS 16444. Firmware upgrade will not be required for this requirement. On doing the configuration, the event will be recorded the programming count will increase, Pl. confirm We will be provide configurations parameters as per the DLMS IS 15959 Part 2, The parameters which beyond the DLMS IS 15959 Part 2 need to OBIS code from the Tenderer, pl. confirm	specification to be complied
94	Clause No. 4.4.2 Page No.37/315	Electrostatic Discharge (ESD) Meter, inside meter box, shall be immune up to 50 kV and shall record accurate energy as per IS- 13779:1999 / CBIP-325. Meter shall log the event into memory as 'ESD' with date & time stamp for any ESD greater than 35 kV with snap shot the event logging threshold values as per table no. 1 in 4.6.	We will provide ESD as per CBIP 325, pL. accept	As per CBIP 325
95	Clause No. 4.4.2 Page No.25/181	The shielding around the meter shall be such that it does not get affected by high voltage, high and low energy impulse when comes in contact with meter from any side.	We will provide suitable protection, Pl. accept	specification to be complied
96	Clause No. 4.4.3 Page No.38/315	The meter should immune to high/ low frequency Jammer devices. Meter shall log event in its memory as jammer with date and time stamp along with snapshot.	We will provide as per CBIP 325, pL. accept	As per CBIP 325
97	Clause No. 5.4 Page No.38/315	Abnormal and Tamper conditions: Meter shall store cumulative count and cumulative durations of all the tamper event which have logged by meter from the date of energization till life of meter.	Cumulative duration of the tamper events will be logged individually at HES/BCS end, pl. confirm	Specification to be complied

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
98	Page No.33/315 The brief technical particulars of this Disconnecter / load switch are furnished below, bidders to comply for the same:-	The brief technical particulars of this Disconnecter / load switch are furnished below, bidders to comply for the same:- Utilization Categories:-UC2 or better	Temperature Rise occurrence and Restoration time not specified in Table, we suggest the persistence time of the temper – 30 min. Occurrence and 120 sec. Restoration, pl. accept	Temperature rise event logging Occurrence - 30 min Restoration - 2 min
99	Components Clause No. 1	Measurement/ computing chips - USA: Analog USA: Anolog Devices, Cyrus Logic, Atmel, Phillips, freescale,NXP South Africa: SAMES Japan: NEC Singapore: Texas	Renasas Texas Instruments Sylergy (Taridian-Maxim)	Noted
100	Components Clause No.2	Memory chips / NVM - USA: Atmel, National Semiconductors, Texas Instruments, Phillips, Onsemi Japan:Hitachi or Oki Europe: SGS Thomson	- Adesto Technolgies - Winbond - Onsemi - Rohm - Micron technology	Noted
101	Components Clause No. 3	Display modules - Taiwan: Holtek Singapore: Bonafied Technologies Korea: Advantek China:Xiamen/ Tianma	- Yeebo - Tianma Microelectronics	Noted
102	Components Clause No. 4	Optical port - USA: National Semiconductors Holland / Korea: Phillips Taiwan: MAXIM Japan:Hitachi, Everlight	Everlight - Liteon - Paralight - Oasis Tek - Ligitek - Osram - Fairchild –Onsemi - Liteon	Noted

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
103	Components Clause No. 6	Electronic Components - USA: National Semiconductors, Atmel, Phillips, Texas Instruments Vishay Japan: Hitachi, Oki, AVX or Ricoh Korea: Samsung	Pageo - Suzcon - Lelon - Rubycon - Nippon-chemicon - Jamicon - Panasonic - Murata - Walsin - Samsung - Taiyo Yuden - Kemet - PEC - Royal Ohm - Watts - Codaca - Brightking - Epcos - HJC - Taiwan semi - Rectron - Rohm - Nexperia - Illinois - Jianghiai - Diotec - Panjit - Helveteo	Noted
104	Components Clause No. 7	Battery- <u>Varta / Tedirun /Sanyo/ EVE / XENO, Mitsubishi or equivalent.</u>	- Tekcell - Eternacell/Saft - EVE - Varta - Panasonic - Philips	Noted
105	Components Clause No. 7	Micro controller / RTC USA: Philips , Dallas, Atmel, Motorola Japan: NEC or Oki	Renasas '- Texas Instruments '- Sylergy (Taridian-Maxim)	Noted
106	Components Clause No.8	Temperature sensor - USA: Philips , Dallas, Atmel, Motorola Japan: NEC or Oki	Renasas '- Texas Instruments '- Sylergy (Taridian-Maxim)	Noted
107	Clause No. 9	Temperature sensor to be provided from inside near the terminal block and precisely placed near incoming terminals of the energy meter for sensing the temperature and meter should be programmed in such way that on reaching the threshold value set (as per tamper table) the event/alert should go the to HES/MDMS	Temperature sensor will be inbuilt in micro controller, Pl. accept	Noted

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
109	Clause No. 11, Sample: Tendering Stage, Page No. 59	Bidders are required to manufacture 04 numbers of sample meters as per the TP(C/N/S/W)ODL specification (sealed, unsealed and openable base and cover to view/test the inner circuits)and submit the samples (non-returnable) along with bid for approval. The tender sample as per IS 13779 & IS 15959 shall be acceptable for verification and other checks. Bidder to demonstrate all communication features during sample testing.		Bidders need to provide 2nos. Sample to Meter Testing Lab of TPSODL for necessary sample testing Meter Testing Laboratory, TPSODL, Duduma Colony, Near OPTCL grid, Ambagada, Ganjam-760002 Name: Leena Patel, Mob: 9437570562