

Ref. No.: CC-CS/TWT/Amend-6 & Clar-5

Date: 10.06.2022

<< TO ALL THE BIDDERS THROUGH PORTAL>>

Sub: Package for procurement of Smart Meters including associated Communication Infrastructure, Head End System (HES), Meter Data Management system (MDM) for implementation of Advanced Metering Infrastructure Project(s) in Central & Western India; Specification No.: RTN1001566/OTHERS/DOM/A02; GeM Bid Number: GEM/2022/B/2006757 dated 08.03.2022

...Reg. Amendment No. 6 and Clarification No 5 to the Bidding Documents

Dear Sir(s),

- 1.0 This has reference to the bidding documents for the subject package uploaded on Government e-Marketplace (GeM) Portal [GeM Bid No. GEM/2022/B/2006757 dated 08.03.2022] and subsequently issued Corrigendum/Amendments/Clarifications.
- 2.0 **Amendment No. 6 and Clarification No. 5** to the bidding documents enclosed herewith are uploaded on the GeM Portal.
- 3.0 Save and Except for the changes brought-out in the above-mentioned amendments, all other terms and conditions of the original bidding documents shall remain unaltered.

Thanking you,

For and On behalf of Power Grid Corporation of India Limited

6/10/2022

X Aakash Khandelwal

Aakash Khandelwal Manager (CS) Signed by: AAKASH KHANDELWAL

Encl: As above

केन्द्रीय कार्यालय: "सौदामिनी", प्लॉट नंबर 2, सेक्टर -29, गुरुग्राम -122001, (हरियाणा) दूरभाष: 0124-2571700-719

Corporate Office: "Saudamini", Plot No. 2, Sector-29, Gurugram-122001, (Haryana) Tel.: 0124-2571700-719

पंजीकृत कार्यालय: बी -9, कुतुब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली -110 016. दूरभाष: 011-26560112, 26560121, 26564812, 26564892, CIN: L40101DL1989GOI038121 Registered Office: B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110 016. Tel: 011-26560112, 26560121, 26564812, 26564892, CIN: L40101DL1989GOI038121 Website: www.powergridindia.com

SI.	Clause No.	Existing Clause in the Bidding Documents	Amended as
No.			
1.	ITB/BDS	Supplementing ITB clause 13.2 with the following:	Supplementing ITB clause 13.2 with the following:
	Clause 13.2,		
	Section-III,	Bid Security shall be valid upto 01/01/2023, or any other	Bid Security shall be valid upto 05/03/2023 , or any other date
	VolI of the	date as subsequently requested under ITB Sub-Clause	as subsequently requested under ITB Sub-Clause 14.2.
	Bidding	14.2.	
	Documents		

S. No.	Clause Ref.	Existing Provision	Amended Provision
1.	Volume-II Section 2,	Data display facility (auto/manual)	Data display facility (auto/manual)
	Clause- 3.6	Meter display should go into the sleep mode during Power-On condition in case the push button is not operated for more than 10 minutes .	Meter display should not go in to sleep mode during Power-On condition.
2.	Volume-II, Section 2, Clause- 4.6	Data display facility (auto/manual) Meter display should go into the sleep mode during Power-On condition in case the push button is not operated for more than 10 minutes .	Data display facility (auto/manual) Meter display should not go in to sleep mode during Power-On condition.

S.	Clause Ref.	Provisions of Existing Bidding Documents	Bidder's Query/ Comments	POWERGRID's
<u>No.</u> 1.	Volume-II, Section 5, Clause 2	Qualifying Requirement for HES Provider :- Head End System (HES) Provider must have experience of integration of at least 50,000 nos. Smart meters* (cumulatively) with its own HES in Indian/ Global Power Utility(ies) in the last 5 (five) years which are in operation for at least 1 (one) year as on the originally scheduled date of bid opening.	QR be modified to "15,000 smart meter awarded contractually and 25,00,000 meter integration through a meter simulator".	Reply/Clarification In this regard, provisions of the bidding documents shall remain unchanged.
		Qualifying Requirement for MDMS Provider: - Meter Data Management System (MDMS) Provider must have experience of integrating its own MDMS with HES of at least 50,000 Smart meters* (cumulatively) in Indian/ Global Power Utility(ies) in last 5 (five) years which are in operation for at least 1(one) year as on the originally scheduled date of bid opening		
2.	Volume-II, Section 2, Clause 3.3	Meter shall have the ability to communicate with Head End System (HES) on any one of the communication technologies mentioned in this document (RF /Cellular) in a secure manner. The selection of communication technology should be as per the site conditions and as per design consideration of Contractor to meet the performance as per agreed Service Level Agreements (SLAs). In case of Cellular based meter, the meter shall accommodate SIM card/ e-SIM of any Telcom Service Provider. The meter shall log the removal of the plug-in type communication module removal /nonresponsive event with snapshot. RF-meters and GPRS Meters shall be integrated with the common Head End System	Please refer Section-2 (3.3) vide which it is mentioned that: In case of Cellular based meter, the meter shall accommodate SIM card / e-SIM of any Telcom Service Provider. The meter shall log the removal of the plug-in type communication module removal /nonresponsive event with snapshot. Our submission: Sir, as of now in	Both SIM card/ e-SIM of any Telcom Service Provider is acceptable as per the provision of the bidding document.

S.	Clause Ref.	Provisions of Existing Bidding Documents	Bidder's Query/ Comments	POWERGRID's
No.				Reply/ Clarification
		(HES). If any intermediatory HES/middleware is required for RF Meters same shall be provided without any financial implication and shall be seamlessly integrated with the common Head End System (HES). Meter shall be able to communicate with DCU/HES on both Push and Pull mode.	the Market there is no e-SIM Cards are available. So, Physical SIM Card of any Service Provider shall be supported. We request you to kindly confirm your acceptance of the same.	
3.	Volume-II, Section 2, Clause 3.3	Meter shall have the ability to communicate with Head End System (HES) on any one of the communication technologies mentioned in this document (RF /Cellular) in a secure manner. The selection of communication technology should be as per the site conditions and as per design consideration of Contractor to meet the performance as per agreed Service Level Agreements (SLAs). In case of Cellular based meter, the meter shall accommodate SIM card/ e-SIM of any Telcom Service Provider. The meter shall log the removal of the plug-in type communication module removal /nonresponsive event with snapshot. RF-meters and GPRS Meters shall be integrated with the common Head End System (HES). If any intermediatory HES/middleware is required for RF Meters same shall be provided without any financial implication and shall be seamlessly integrated with the common Head End System (HES). Meter shall be able to communicate with DCU/HES on both Push and Pull mode.	Please refer Section-2 (3.3) vide which it is mentioned that: The meter shall log the removal of the plug-in type communication module removal / nonresponsive event with snapshot. RF-meters and GPRS Meters shall be integrated with the common Head End System (HES). Our submission: Sir, kindly note that 'Plug-in Communication Module removal' Event shall be logged by Meter in line with DLMS IS 15959 Part 2 Standards. Please accept the same	Bidder's understanding is in line with the bidding requirement.

S.	Clause Ref.	Provisions of Existing Bidding Documents	Bidder's Query/ Comments	POWERGRID's Booly/ Clarification
4.	Volume-II, Section 2, Clause 3.5	Other Specifications: Current Rating: 5-30 A or 10-60 A	Our submission: Sir, please confirm the Current Rating whether 5-30A is required or 10- 60A.	The provisions of the Bidding Documents are amply clear. Current rating requirement shall be as per BOQ.
5.	Volume-II, Section 2, Clause 3.5	Plug-in Communication Module - The Smart Meters shall have a dedicated sealable slot for accommodating plug-in type bi -directional communication module which shall integrate the respective communication technology (RF/ Cellular) with the Smart Meters, leading to easy adaptability for network interfaces (WAN/NAN). The Plug-In module shall be field swappable/ replaceable.	Please refer Section-2 (3.5) vide which it is mentioned that: Plug- in Communication Module – The Smart Meters shall have a dedicated sealable slot for accommodating plug-in type bi - directional communication module which shall integrate the respective communication technology (RF / Cellular) with the Smart Meters, leading to easy adaptability for network interfaces (WAN / NAN) Our submission: Sir, adaptability between NAN and WAN Communication is possible through Firmware up-gradation.	In this regard, provisions of bidding document shall remain unchanged.
6.	Volume-II, Section 2, Clause 3.5	Plug-in Communication Module - The Smart Meters shall have a dedicated sealable slot for accommodating plug-in type bi -directional communication module which shall integrate the respective communication technology	Please refer Section-II (3.5) vide which it is mentioned that: Plug- in Communication Module – The Smart Meters shall have a dedicated sealable slot for	Bidding document, Volume-II, Section 3, may be referred for more clarity on

S.	Clause Ref.	Provisions of Existing Bidding Documents	Bidder's Query/ Comments	POWERGRID's
<u>NO.</u>		(RF/ Cellular) with the Smart Meters, leading to easy adaptability for network interfaces (WAN/NAN). The Plug-In module shall be field swappable/ replaceable.	accommodating plug-in type bi - directional communication module which shall integrate the respective communication technology (RF/ Cellular) with the Smart Meters, leading to easy adaptability for network interfaces (WAN/NAN). The Plug-In module shall be field swappable / replaceable. Our submission: Sir, kindly note that the Plug in Module shall be field replaceable with same Make, Model and Technology. Kindly accept the same.	Reply/ Clarification Communication Module requirement. However, provisions of bidding document shall remain unchanged.
7.	Volume-II, Section 2, Clause 3.6	 3.6 Data display facility (auto/manual) As per IS 16444. However minimum requirement should include the following: Data Display shall be in two modes Auto Scroll Scroll with Push Button The display parameters shall be: Current Balance days left 	Please refer Section-II (3.6) vide which it is mentioned that: Current Balance days left. Our submission: Sir, this should be 'Current Balance Time'. Seems to be typographical error and the same may kindly be amended accordingly.	Please refer Amendment No4 (Technical Part) S.No. 7
8.	Volume-II, Section 2, Clause 3.6	The meter's display should return to default display mode (continues auto scroll) if push button is not operated for more than 10 seconds. (The order of	Please refer Section-II (3.6) vide which it is mentioned that: 	Please refer Amendment No6

S. No	Clause Ref.	Provisions of Existing Bidding Documents	Bidder's Query/ Comments	POWERGRID's Reply/ Clarification
		display may be revised as per requirement of the utility). Meter display should go into the sleep mode during Power-On condition in case the push button is not operated for more than 10 minutes.	into the sleep mode during Power-On condition in case the push button is not operated for more than 10 minutes Our submission: Sir, kindly accept continuous Display of Auto Scroll Parameters alternatively instead of 'Sleep Mode'.	(Technical Part) S.No. 1.
9.	Volume-II, Section 2, Clause 4.3	Meter shall have the ability to communicate with Head End System (HES) on any one of the communication technologies mentioned in this document (RF /Cellular) in a secure manner. The selection of communication technology should be as per the site conditions and as per design consideration of Contractor to meet the performance as per agreed Service Level Agreements (SLAs). In case of Cellular based meter, the meter shall accommodate SIM card/ e-SIM of any Telcom Service Provider. The meter shall log the removal of the plug-in type communication module removal /nonresponsive event with snapshot. RF-meters and GPRS Meters shall be integrated with the common Head End System (HES). If any intermediatory HES/middleware is required for RF Meters same shall be provided without any financial implication and shall be seamlessly integrated with the common Head End System (HES). Meter shall be able to communicate with DCU/HES on both Push and Pull mode.	Please refer Section-II (4.3) vide which it is mentioned that: In case of Cellular based meter, the meter shall accommodate SIM card / e-SIM of any Telcom Service Provider. The meter shall log the removal of the plug-in type communication module removal /nonresponsive event with snapshot. Our submission: Sir, as of now in the Market there is no e-SIM Cards are available. So, Physical SIM Card of any Service Provider shall be supported. We request	Both SIM card/ e-SIM of any Telcom Service Provider is acceptable as per the provision of the bidding document.

S.	Clause Ref.	Provisions of Existing Bidding Documents	Bidder's Query/ Comments	POWERGRID's
<u>NO.</u>			you to kindly confirm your acceptance of the same	
10.	Volume-II, Section 2, Clause 4.3	Meter shall have the ability to communicate with Head End System (HES) on any one of the communication technologies mentioned in this document (RF /Cellular) in a secure manner. The selection of communication technology should be as per the site conditions and as per design consideration of Contractor to meet the performance as per agreed Service Level Agreements (SLAs). In case of Cellular based meter, the meter shall accommodate SIM card/ e-SIM of any Telcom Service Provider. The meter shall log the removal of the plug-in type communication module removal /nonresponsive event with snapshot. RF-meters and GPRS Meters shall be integrated with the common Head End System (HES). If any intermediatory HES/middleware is required for RF Meters same shall be provided without any financial implication and shall be seamlessly integrated with the common Head End System (HES). Meter shall be able to communicate with DCU/HES on both Push and Pull mode.	Please refer Section-II (4.3) vide which it is mentioned that: The meter shall log the removal of the plug-in type communication module removal / nonresponsive event with snapshot Meter shall be able to communicate with DCU/HES on both Push and Pull mode. Our submission: Sir, kindly note that 'Plug-in communication Module removal' event shall be logged by Meter in line with DLMS IS 15959 Part 2 Standards. Please accept the same.	Bidder's understanding is in line with the bidding requirement.
11.	Volume-II, Section 2, Clause 4.5	4.5 Other Specifications Current Rating: 10-60 A / 20-100 A	Please refer Section-II (4.5) vide which it is mentioned that: Current Rating - 10-60 A / 20-100 A. Our submission: Sir, please confirm the Current Rating	The provisions of the Bidding Documents are amply clear. Current rating requirement shall be as per BOQ.

S.	Clause Ref.	Provisions of Existing Bidding Documents	Bidder's Query/ Comments	POWERGRID's Reply/ Clarification
			Wether 10-60A is required or 20-100A.	
12.	Volume-II, Section 2, Clause 4.5	Plug-in Communication Module: The Smart Meters shall have a dedicated sealable slot for accommodating plug- in type bi -directional communication module which shall integrate the respective communication technology (RF/Cellular) with the Smart Meters, leading to easy adaptability for network interfaces (WAN/NAN). The Plug-In module shall be field swappable/ replaceable.	Please refer Section-II (4.5) vide which it is mentioned that: Plug- in Communication Module - The Smart Meters shall have a dedicated sealable slot for accommodating plug-in type bi - directional communication module which shall integrate the respective communication technology (RF/Cellular) with the Smart Meters, leading to easy adaptability for network interfaces (WAN / NAN). The Plug-In module shall be field swappable/ replaceable. Our submission: Sir, adaptability between NAN and WAN Communication is possible through Firmware up-gradation.	In this regard, provisions of bidding document shall remain unchanged.
13.	Volume-II, Section 2, Clause 4.5	Plug-in Communication Module: The Smart Meters shall have a dedicated sealable slot for accommodating plug- in type bi -directional communication module which shall integrate the respective communication technology (RF/Cellular) with the Smart Meters, leading to easy adaptability for network interfaces (WAN/NAN). The Plug-In module shall be field swappable/ replaceable.	Please refer Section-II (4.5) vide which it is mentioned that: Plug- in Communication Module - The Smart Meters shall have a dedicated sealable slot for accommodating plug-in type bi - directional communication	Bidding document, Volume-II, Section 3, may also be referred

S. No	Clause Ref.	Provisions of Existing Bidding Documents	Bidder's Query/ Comments	POWERGRID's Reply/ Clarification
			module which shall integrate the respective communication technology (RF/Cellular) with the Smart Meters, leading to easy adaptability for network interfaces (WAN/NAN). The Plug-In module shall be field swappable / replaceable. Our submission: Sir, kindly note that the Plug in Module shall be field replaceable with same Make, Model and Technology. Kindly accept the same.	for Communication Module requirement. However, provisions of bidding document shall remain unchanged.
14.	Volume-II, Section 2, Clause 4.6	 4.6 Data display facility (auto/manual) • Current Balance days left ····································	Please refer Section-II (4.6) vide which it is mentioned that: Current Balance days left. Our submission: Sir, this should be 'Current Balance time'. Seems to be typographical error and the same may kindly be amended accordingly.	Please refer Amendment No4 (Technical Part) S.No. 8
15.	Volume-II, Section 2, Clause 4.6	The meter's display should return to default display mode (continues auto scroll) if push button is not operated for more than 10 seconds. (The order of display may be as per the requirement of utility). Meter display should go in to sleep mode during Power-On condition in case the push button is not operated for more than 10 minutes.	Please refer Section-II (4.6) vide which it is mentioned that: Meter display should go in to sleep mode during Power- On condition in case the push button is not operated for more than 10	Please refer Amendment No6 (Technical Part) S.No. 2.

S.	Clause Ref.	Provisions of Existing Bidding Documents	Bidder's Query/ Comments	POWERGRID's Booly/ Clarification
			minutes. Our submission: Sir, kindly accept continuous Display of Auto Scroll Parameters alternatively instead of 'Sleep Mode'.	Repry/ Clarification
16.	Volume-II, Section 2, Clause 5.3	Meter shall have the ability to communicate with Head End System (HES) on Cellular communication technology in a secure manner. The selection of communication technology should be as per the site conditions and as per design requirement of Contractor to meet the performance as per agreed Service Level Agreements (SLAs). In case of Cellular based meter, the meter shall accommodate SIM card/ e-SIM of any service provider. The meter shall log the removal of the plug-in type communication module removal /nonresponsive event with snapshot. Meter shall be able to communicate with DCU/HES on both Push and Pull mode.	Please refer Section-II (5.3) vide which it is mentioned that: In case of Cellular based meter, the meter shall accommodate SIM card/ e-SIM of any service provider. The meter shall log the removal of the plug-in type communication module removal / nonresponsive event with snapshot. Our submission: Sir, kindly note that 'Plug-in communication Module removal' Event shall be logged by Meter in line with DLMS IS 15959 Part 2 Standards. Please accept the same.	Bidder's understanding is in line with the bidding requirement.
17.	Volume-II, Section 2, Clause 6.1	The specification covers the design, manufacturing, testing, supply, and delivery of 3 phase CT/PT operated alternating current Smart Meter of Accuracy Class 0.5S/0.2S (as applicable) with bidirectional communication facility suitable for Feeder Meter,	Please refer Section-II (6) (6.1) vide which it is mentioned that: The specification covers the design, manufacturing, testing, supply, and delivery of 3 phase	In this regard, provisions of the bidding documents

S.	Clause Ref.	Provisions of Existing Bidding Documents	Bidder's Query/ Comments	POWERGRID's Reply/ Clarification
		Boundary Meter, HT Consumers in End-to-End Smart Metering Solution. The meter shall communicate with Head End System (HES) on cellular technology, as per the requirement of the utility / authorized system integrator.	CT/PT operated alternating current Smart Meter of Accuracy Class 0.5S / 0.2S (as applicable) with bidirectional communication facility suitable for Feeder Meter, Boundary Meter, HT Consumers in End-to-End Smart Metering Solution. Our submission: Sir, Complied with 5A with 0.5S rating only. Please confirm your acceptance on the same.	shall remain unchanged.
18.	Volume-II, Section 2, Clause 6.3	Meter shall have the ability to communicate with Head End System (HES) on GPRS communication technology in a secure manner. The selection of communication technology should be as per the site conditions and as per design requirement of Contractor to meet the performance as per agreed Service Level Agreements (SLAs). In case of Cellular based meter, the meter shall accommodate SIM card/ e-SIM of any service provider. The meter shall log the removal of the plug-in type communication module removal /nonresponsive event with snapshot. Meter shall be able to communicate with DCU/HES on both Push and Pull mode.	Please refer Section-II (6) (6.3) vide which it is mentioned that: In case of Cellular based meter, the meter shall accommodate SIM card / e-SIM of any service provider. Our submission: Sir, as of now in the Market there is no e-SIM Cards are available. So, Physical SIM Card of any Service Provider shall be supported. We request you to kindly confirm your acceptance of the same.	Both SIM card/ e-SIM of any Telcom Service Provider is acceptable as per the provision of the bidding document.
19.	Volume-II, Section 2, Clause 6.3	Meter shall have the ability to communicate with Head End System (HES) on GPRS communication	Please refer Section-II (6) (6.3) vide which it is mentioned that:	Bidder's understanding is in line

S.	Clause Ref.	Provisions of Existing Bidding Documents	Bidder's Query/ Comments	POWERGRID's	
No.				Reply/ Clarification	
		technology in a secure manner. The selection of communication technology should be as per the site conditions and as per design requirement of Contractor to meet the performance as per agreed Service Level Agreements (SLAs). In case of Cellular based meter, the meter shall accommodate SIM card/ e-SIM of any service provider. The meter shall log the removal of the plug-in type communication module removal /nonresponsive event with snapshot. Meter shall be able to communicate with DCU/HES on both Push and Pull mode.	In case of Cellular based meter, the meter shall accommodate SIM card / e-SIM of any service provider. The meter shall log the removal of the plug-in type communication module removal / nonresponsive event with snapshot. Our submission: Sir, kindly note that 'Plug-in Communication Module removal' event shall be logged by Meter in line with DLMS IS 15959 Part 2 Standards. Please accept the same.	with the bidding requirement.	
20.	Volume-II, Section 2, Clause 6.4	6.4 Other Specifications Current Rating: Ib 5A/ 1A (as applicable)	Please refer Section-II (6) (6.4) vide which it is mentioned that: Current Rating - Ib 5A/ 1A (as applicable). Our submission: Sir, Complied with 5A with 0.5S rating only. Please confirm your acceptance on the same.	In this regard, provisions of the bidding documents shall remain unchanged.	
21.	Volume-II, Section 2, Clause 14.4	14.4 Three phase CT/PT operated alternating current Smart Meter of Accuracy Class 0.5S/ 0.2S (as applicable)	Please refer Section-II 14.4 vide which it is mentioned that: Accuracy - Class 0.5S or 0.2S as per IS 16444: Part 2.	In this regard, provisions of the bidding documents	

Page 12 of 20

S.	Clause Ref.	Provisions of Existing Bidding Documents	Bidder's Query/ Comments	POWERGRID's
			Our submission: Sir, Complied with 5A with 0.5S rating only.	shall remain unchanged.
22.	Volume-II, Section 3, Appendix-I	General requirement for common pluggable communication module for Smart Meters:- Considering that the new Smart Meters may use different types of communication technologies (RF/Cellular, etc.), thus in order to enable different communication modules to be used in the same meter, it is necessary to use a universal interface and a particular size irrespective of the choice of communication technology that defines the dimensions of the communication slot as well as physical placement and location of connectors.	Please refer Appendix-I to Section 3 vide which it is mentioned that: General requirement for common pluggable communication module for Smart Meters. Our submission: Sir, kindly accept Manufacturers design instead of module design mentioned here under, considering the following drawbacks with change in module design. 1. Design evaluation shall be affected. 2. Cost reduction shall be affected. 3. Product reliability shall be affected. 4. Distractive tests compatibility may affect the module. 5. BIS certification for Smart Meter shall be provided for the complete unit including the communication module. If the communication module is	In this regard, provisions of the bidding documents shall remain unchanged.

S. No	Clause Ref.	Provisions of Existing Bidding Documents	Bidder's Query/ Comments	POWERGRID's Reply/ Clarification
			changed then existing BIS shall not be valid.	
23.	Volume-II, Section 5, Clause 3.1	3.1 Configuration HES shall facilitate configuration of following minimum Advance Metering Infrastructure parameters: 	Please refer Section-5 (3.1) (s) vide which it is mentioned that: Setting threshold limits for monitored parameters. Our submission: Sir, these Parameters cannot be configured in Meter since DLMS IS 15959 Part 2 Standards does not support the same. Hence HES cannot program these parameters into Meter. You are requested to accept the same in line with DLMS IS 15959 Part 2 Standards.	In this regard, provisions of the bidding documents shall remain unchanged.
24.	Amendment No2 (Technical Portion), S.No. 1	All the meters shall be supplied with meter box, specification of the same shall be as under: The meter box shall be intended to house one number smart meter. The meter box shall comply with relevant Indian standard IS: 14772:2000/IS:13410 with latest amendment. The thickness of the box shall be minimum 2.0 mm on all sides. The base and cover of meter box shall be made of hot press moulded, unbreakable, high- grade fire-retardant Engineering Plastic / Polycarbonate, having good di-electric and mechanical strength. LTCT Meter Boxes shall be manufactured from	Please refer, Amendment No2 (Technical Portion) dated 02.05.2022, S. no. 1 vide which it is mentioned that: The base and cover of meter box shall be made of hot press moulded, unbreakable, high-grade fire- retardant Engineering Plastic / Polycarbonate, having good di- electric and mechanical strength. LT CT Meter Boxes shall be	Provision of mounting of LTCT shall be there inside the LTCT meter box.

S.	Clause Ref.	Provisions of Existing Bidding Documents	Bidder's Query/ Comments POWERGRID's	
No.				Reply/ Clarification
		Sheet Moulding Compounds (SMC). Meter box shall be weather proof, capable to withstand temperature of minimum 85° C. The thickness of the box shall be minimum 2.0 mm on all sides. The overall dimensions of the box shall be such that a minimum 30 mm clearance from left, right and top, 25 mm from front and 10mm from back side & 75 mm from meter terminals and bottom side shall be maintained in between meter and box surface. The box cover shall be fixed with concealed hinge. It would be open by at least 90 degrees. Meter Box shall comply with IP – 55 protection class. Handle shall be provided on the box door for ease of door opening. All metallic parts would be well protected against corrosion. The overall dimension of the meter box shall vary according to the size of meters. However, it shall comply with the minimum requirements as described above. A viewing window made up of scratch & break resistant, UV resistant, transparent Polycarbonate material shall be provided on the door for reading the meter without inconvenience. The minimum thickness of the viewing window shall be 2.0 mm (flashing with top). The window shall be securely fixed with meter enclosure from inside. No viewing window is required for transparent polycarbonate meter box.	manufactured from Sheet Moulding Compounds (SMC). Our submission: Sir, we understand the LT CT SMC Meter Box shall house only LT CT Operated Smart Energy Meter. External LT CT's shall not mounted in the same Box. Therefore, we shall provide SMC Box of size 400X300X200mm. We request you to kindly reconfirm.	
25.	Amendment No2 (Technical Portion), S.No. 1	All the meters shall be supplied with meter box, specification of the same shall be as under: The meter box shall be intended to house one number smart meter. The meter box shall comply with relevant Indian standard IS: 14772:2000/IS:13410 with latest	Please refer, Amendment No2 (Technical Portion) dated 02.05.2022, S.no. 1 vide which it is mentioned that: The thickness of the box shall be minimum 2.0	Provisions of the Bidding Documents are amply clear and

S.	Clause Ref.	Provisions of Existing Bidding Documents	Bidder's Query/ Comments	POWERGRID's	
No.				Reply/ Clarification	
		amendment. The thickness of the box shall be minimum	mm on all	shall remain	
		2.0 mm on all sides. The base and cover of meter box	sides. The overall dimensions of	unchanged.	
		shall be made of hot press moulded, unbreakable, high-	the box shall be such that a		
		grade fire-retardant Engineering Plastic /	minimum 30 mm clearance from		
		Polycarbonate, having good di-electric and mechanical	left, right and top, 25 mm from		
		strength. LTCT Meter Boxes shall be manufactured from	front and 10mm from back side &		
		Sheet Moulding Compounds (SMC). Meter box shall be	75 mm		
		weather proof, capable to withstand temperature of	from meter terminals and bottom		
		minimum 85° C. The thickness of the box shall be	side shall be maintained in		
		minimum 2.0 mm on all sides. The overall dimensions of	between meter and box surface.		
		the box shall be such that a minimum 30 mm clearance	Our submission: Sir, please also		
		from left, right and top, 25 mm from front and 10mm from	accept the overall dimensions of		
		back side & 75 mm from meter terminals and bottom	the box shall be such that a		
		side shall be maintained in between meter and box	minimum 20 mm clearance from		
		surface. The box cover shall be fixed with concealed	left, right and top, 10 mm from		
		hinge. It would be open by at least 90 degrees. Meter	front and 10mm from back side &		
		Box shall comply with IP – 55 protection class. Handle	75 mm from meter terminals and		
		shall be provided on the box door for ease of door	bottom side		
		opening. All metallic parts would be well protected	shall be maintained in between		
		against corrosion. The overall dimension of the meter	Meter and Box surface.		
		box shall vary according to the size of meters. However,	Kindly confirm the same.		
		it shall comply with the minimum requirements as			
		described above. A viewing window made up of scratch			
		& break resistant, UV resistant, transparent			
		Polycarbonate material shall be provided on the door for			
		reading the meter without inconvenience. The minimum			
		thickness of the viewing window shall be 2.0 mm			
		(flashing with top). The window shall be securely fixed			
		with meter enclosure from inside. No viewing window is			
		required for transparent polycarbonate meter box.			

S. No.	Clause Ref.	Provisions of Existing Bidding Documents	Bidder's Query/ Comments	POWERGRID's Reply/ Clarification
26.	Volume-II, Section 3, Clause 1.4	Existing Provision: - 1.4 Communication Module: The smart meters shall have plug and play type communication module for two-way communication for any given communication technology with HES/Access Points/DCU. In case of GPRS meters communication shall happen primarily on 4G; In case of contingency communication module/SIM card shall be able to communicate over 2G. Amended provision:- 1.4 Communication Module: The smart meters shall have plug and play type communication module for two-way communication for any given communication technology with HES/Access Points/DCU. In case of GPRS meters communication shall happen primarily on 4G or NB-IoT; In case of contingency communication module/SIM card shall be able to communicate over any other frequency band.	Request you to please clarify what does it mean for any other frequency band as 4G and 2G both work. Also please suggest what will be fall back technology for 2G & 4G.	Please refer Amended provision "communication shall happen primarily on 4G or NB-IoT; In case of contingency communication module/SIM card shall be able to communicate over any other frequency band" which may also include 2G.

SI.	Clause Ref.	Provisions of Existing Bidding Documents	Bidder's Query/ Comments	POWERGRID's
No.				Reply/ Clarification
27.	Volume I, Annexure A(BDS) clause 1.4.3/ Amendment No. 3 to the Bidding Documents, clause 1.4.4	Annexure A(BDS), clause 1.4.3 1.4.3 A "Joint Deed of Undertaking" as per the format enclosed at section-VI (Sample Forms & Procedures), Volume-I of the Bidding Documents, to be jointly executed by the Bidder and the Sub-contractor(s) as per para 1.4.2 above shall be submitted by the Bidder along with bid. Each Sub-Contractor shall furnish performance guarantee for an amount of 5% of cost of equipment/services offered by such Sub-Contractor. This performance guarantee shall be in addition to contract performance guarantee to be submitted by the Bidder.	"Joint Deed of Undertaking" as per the format enclosed at Section-VI (Sample Forms & Procedures), Volume-I of the Bidding Documents, to be jointly executed by the Bidder and the Sub-Contractor(s) as per para 1.4.2 above shall be submitted by the Bidder along with bid. It effects the liquidity of SubContractor which may result in delay of project. Therefore, it is our humble request to waive out	In this regard, provisions of Bidding document shall remain unchanged. However, documents may be read in conjunction with the issued amendments.
		Amendment No. 3 to the Bidding Documents, clause 1.4.4 1.4.4 A "Joint Deed of Undertaking" as per the format enclosed at Section-VI (Sample Forms & Procedures), Volume-I of the Bidding Documents, to be jointly executed by the Bidder and all the Sub-Contractor(s) shall be submitted by the Bidder along with bid. Each Sub-Contractor shall furnish performance guarantee for an amount of 5% of cost of equipment/services offered by such Sub-Contractor. This performance guarantee shall be in addition to contract performance guarantee to be submitted by the Bidder.	from submission of 5 % Performance security	
28.	Volume III,	2.1.3 A "Joint Deed of Undertaking" as per the format	Kindly modify the clause as	In this regard,
	A machiment -3 (QR)	Volume L of the Bidding Decumente to be initial	Undertaking" as par the format	provisions of Blaaing
		executed by the Bidder and the Sub-Contractor(s) as per	enclosed at Section-VI (Sample	unchanged However
		Level of the pidder and the out-contractor(s) as per		unonangeu. nowever,

SI.	Clause Ref.	Provisions of Existing Bidding Documents	Bidder's Query/ Comments	POWERGRID's
No.				Reply/ Clarification
	EXPERIENCE Route- 1,2,3 & 4	para 2.1.2 above shall be submitted by the Bidder along with bid. Each Sub-Contractor shall furnish performance guarantee for an amount of 5% of cost of equipment/services offered by such Sub-Contractor. This performance guarantee shall be in addition to contract performance guarantee to be submitted by the Bidder.	Forms & Procedures), Volume-I of the Bidding Documents, to be jointly executed by the Bidder and the Sub-Contractor(s) as per para 2.1.2 above shall be submitted by the Bidder along with bid.	documents may be read in conjunction with the issued amendments.
29.	Volume-I, Annexure A (BDS) Clause 3.2 Subclause 3.2.1.3	3.2.1.3 A "Joint Deed of Undertaking" as per the format enclosed at Section-VI (Sample Forms & Procedures), Volume-I of the Bidding Documents, to be jointly executed by the Bidder and the Sub-Contractor(s) as per para 3.2.1.2 above shall be submitted by the Bidder along with bid. Each Sub-Contractor shall furnish performance guarantee for an amount of 5% of cost of equipment/services offered by such Sub-Contractor. This performance guarantee shall be in addition to contract performance guarantee to be submitted by the Bidder	Bidder proposes to relax this clause for SubContractor and Performance Guarantee may be asked from the lead Bidder only.	In this regard, provisions of Bidding document shall remain unchanged.
30.	Volume I, Annexure A(BDS) clause 1.1.3, 1.2.4, 1.3.3, 1.4.3/ Amendment No. 3 to the Bidding Documents, clause 1.1.3, 1.2.4, 1.3.4, 1.4.4	Annexure A(BDS), clause 1.4.3 1.4.3 A "Joint Deed of Undertaking" as per the format enclosed at section-VI (Sample Forms & Procedures), Volume-I of the Bidding Documents, to be jointly executed by the Bidder and the Sub-contractor(s) as per para 1.4.2 above shall be submitted by the Bidder along with bid. Each Sub-Contractor shall furnish performance guarantee for an amount of 5% of cost of equipment/services offered by such Sub-Contractor. This performance guarantee shall be in addition to	The sub-contractor is generally a technology company which invest huge amount in R&D and as such free cash for security deposits is additional burden on the sub-contractor, we request to remove this clause.	In this regard, provisions of Bidding document shall remain unchanged. However, documents may be read in conjunction with the issued amendments.

SI.	Clause Ref.	Provisions of Existing Bidding Documents	Bidder's Query/ Comments	POWERGRID's
No.				Reply/ Clarification
		contract performance guarantee to be submitted by the Bidder.		
		Amendment No. 3 to the Bidding Documents, clause 1.4.4 1.4.4 A "Joint Deed of Undertaking" as per the format enclosed at Section-VI (Sample Forms & Procedures), Volume-I of the Bidding Documents, to be jointly executed by the Bidder and all the Sub-Contractor(s) shall be submitted by the Bidder along with bid. Each Sub-Contractor shall furnish performance guarantee for an amount of 5% of cost of equipment/services offered by such Sub-Contractor. This performance guarantee shall be in addition to contract performance guarantee to be submitted by the Bidder.		
31.	-		As communication is backbone of an AMI project, we request to please add qualification requirement of communication provider also.	In this regard, provisions of Bidding document shall remain unchanged.
32.	Volume-I, Section-II ITB Caluse 5.5	In case of bid submitted by a Joint Venture of two or more firms as partners, if allowed as per stipulated Qualification Requirements in Annexure-A (BDS), all partners of the joint venture shall be MSEs to consider its bid as bid from MSE. Further, JV bidder with at least one non-MSE partner (whether lead or other partner) shall not be eligible for the benefit available to the MSE bidders.	As per new definition, companies having Turnover less than 5 Crores are MICRO units and companies having Turnover less than 50 Crores are SMALL units. Even if 3 SMALL scale unit makes JV they wont be able to meet the clause 4.0 (b) and 4.0	In this regard, provisions of Bidding document shall remain unchanged.

SI. No.	Clause Ref.	Provisions of Existing Bidding Documents	Bidder's Query/ Comments	POWERGRID's Reply/ Clarification
			(c) of the Annexure-A (BDS) in Qualification Requirement. Hence request you to allow MSMEs instead of MSEs.	

S.	Clause No.	Description of Clause	Bidder's Query/Comments	POWERGRID'S Reply/Clarification
No.	/Doc. Ref.	-	_	
1.	Form No 21,		AND WHEREAS Clause No.	Refer Amendment No 5 in this regard.
	Section-VI		, Section, of	
	(Sample	AND WHEREAS Clause No	, Vol.– forming part of	
	Forms and	Section, of, Vol	the Bid Documents interalia	
	Procedures),	forming part of the Bidding Documents	stipulates that the Bidder, Meter	
	VolI of the	inter-alia stipulates that the Bidder and	Manufacturer(s), HES Provider(s)	
	Bidding	the Sub-Contractor(s) must fulfill the	and MDMS Provider(s) must fulfill the	
	Documents	Qualifying Poquirements The Bidder and	Qualifying Requirements for the	
		Qualifying Requirements. The bluder and	respective scope of work viz. Smart	
		each of the Sub-Contractor (i.e. Meter	Meter, Head End System (HES) and	
	JOINT DEED	Manufacturer or HES Provider or MDMS	Meter Data Management System	
		Provider} are jointly and severally bound	(MDMS) and be joinity and severally	
	NC BY THE	and responsible for successful	successful performance of the	
		performance of the respective	offered Advance Metering	
		equipment/services offered by such Sub-	Infrastructure solution limited to their	
	THE SUB-	Contractor so as to ensure successful	respective agreed scope in the	
	CONTRACTO	performance of the offered Advance	event the Bid submitted by the	
	R(S) FOR	Metering Infrastructure solution in the	Bidder is accepted by the Employer	
	METER	event the Bid submitted by the Bidder is	resulting in a Contract.	
	MANUFACTU	event the Did submitted by the Didder is	······································	
2.	RER, HEAD	accepted by the Employer resulting in a	The tender calls for a "JOINT DEED	Refer Amendment No 5 in this regard.
	END	Contract. However, this shall not in any	OF UNDERTAKING BY THE BIDDER	5
	SYSTEM	way dilute the overall responsibility of the	ALONGWITH THE	
	(HES) AND	Bidder for the successful performance of	SUBCONTRACTOR (S) FOR METER	
	METER DATA	the offered Advance Metering	MANUFACTURER, HEAD END	
	MANAGEME	Infrastructure solution.	SYSTEM (HES) AND METER DATA	
	NT SYSTEM		MANAGEMENI SYSIEM (MDMS)	
	(MDMS)]		{Applicable as per Clause 1.1.3 /	

S.	Clause No.	Description of Clause	Bidder's Query/Comments	POWERGRID'S Reply/Clarification
No.	/Doc. Ref.	In consideration of the award of Contract by the Employer to the Bidder (<i>hereinafter</i> <i>referred to as the "Contract"</i>) we, the Bidder/Contractor and the Sub- Contractor(s) do hereby declare the following:	Clause 1.2.4/ Clause 1.3.4 / Clause 1.4.4 / Clause 3.2.1.3/ Clause 3.2.2.3 Clause 3.2.3.3 / Clause 3.2.4.4 /Clause 3.2.5.3 of Annexure-A (BDS), Section- III, Volume-I of the Bidding Documents}" to be submitted along with the Bid and it specifies 'joint and several liability" of both the Bidder and the subcontractor. This is not commercially feasible and/or legally restrictive, as explained in the scenarios below.	
		i. the Bidder/Contractor is bound unto the (insert name of the Employer), for successful performance of the offered Advance Metering Infrastructure solution and shall be fully responsible for the design, manufacture, testing, supply on FOR destination delivery at site basis and supervision of unloading at site, storage, erection, installation, integration, testing & commissioning, operation & maintenance and successful performance of the Advance Metering Infrastructure in accordance with the Contract	Scenario A: The subcontractor(s) must take liability of completion of the total project in case the Bidder fails to complete his responsibilities. Any subcontractor (either Smart Meter or HES or MDM) will have expertise limited to their field of operation and will not be able to take up the balance of the total project due to inherent limitation in their technical & financial capabilities. Eventually this will lead to failure of the project. Scenario B: The bidder has the choice to specify multiple makes of Smart Meter in the project and furnish Joint deed of undertaking including all of	

S.	Clause No.	Description of Clause	Bidder's Query/Comments	POWERGRID'S Reply/Clarification
NO.	/Doc. Ref.	Specifications.	them in the Offer. However, in the	
		 ii. the Bidder/Contractor and the each of the Sub-Contractor {i.e. Meter Manufacturer or HES Provider or MDMS Provider} are jointly and severally bound unto the (insert name of the Employer), for successful performance of the respective equipment/services offered by such Sub-Contractor so as to ensure successful performance of the offered Advance Metering Infrastructure solution by the Bidder/Contractor. 	event of Order, he may choose to source from few of them. Still the OEMs who are not the part of execution are legally exposed to the liability of completing the project having signed the joint deed with joint & several liability. Scenario C: The Subcontractor/OEM to a Bidder does not have any control on the commercial decisions of the Bidder. In case the Bidder bids and accepts the Order on terms & conditions unacceptable to the OEM/Subcontractor, the latter is still liable for completing the project having signed the joint deed with joint and several liability.	
			The risk of having to execute the order in case of failure by the Bidder or any of his other Subcontractors will have to be evaluated and costed for by each Subcontractor. This will inflate the final cost to Power grid. These conditions will restrict quality OEMs like us, from offering their products to the prospective Bidders to your AMI project.	

S. No.	Clause No. /Doc. Ref.	Description of Clause	Bidder's Query/Comments	POWERGRID'S Reply/Clarification
			The commitment of each Subcontractor/OEM is ensured by their acceptance to furnish 5% Bank Guarantee of their scope and supply in the event of Order apart from the 5% Bank Guarantee furnished by the Bidder.	
			We therefore request you to instruct your team to modify the joint deed of undertaking by OEM/subcontractor with "responsibility of OEM/subcontractor restricted to their scope and value of their share of supplies" along with the Bidder.	