



RUBBER PARK INDIA (PVT) LTD
(A JV of KINFRA & Rubber Board)

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Corrigendum-2: Pre-bid Meeting Clarifications

Tender No: RP/E/T/05/2024-25.

Tender ID: 2024_RPI_715073_1.

Name of Work: Design, Supply, Installation, Testing and Commissioning of Grid Connected Battery Energy Storage System (BESS) of 500 kW/1 MWh at Rubber Park Irapuram., Ernakulam District.

The pre-bid meeting was organized on 16.12.2024 in hybrid mode (online & offline) at 11.00 AM to address the queries raised by the bidders. It was informed all the participants in the meeting to submit any additional queries on or before 3 PM on 16.12.2024.

The following Corrigendum/Addendum/Clarification in response to queries raised by prospective bidders shall form an integral part of bid document and it may amount to an amendment of relevant Para/clause of the bid document.

Sl. No.	Pg. No.	Clause No.	As per Tender	Query raised by the Bidders	RPIPL Clarifications
1	78	Section 8 Sl. No. 3	Performance Criteria of the Project: The Contracted Capacity of the Project shall be in terms of “kW”, which shall also be referred to as the Project Capacity. For a Contracted Capacity of 500 kW/1000 kWh, assuming an RtE of ≥85%. The Bidder shall make the BESS available for one (1) operational cycles per day, i.e. one (1) complete charge-discharge cycles per day.	Nil	Modified as " <i>The Contracted Capacity of the Project shall be in terms of “kW”, which shall also be referred to as the Project Capacity. For a Contracted Capacity of 500 kW/1000 kWh, assuming an RtE of ≥85%. The Bidder shall make the BESS available for one (1) operational cycles per day, i.e. one (1) complete charge-discharge cycles per day with 90% DOD and 0.5C.</i> "
2	99	Section 8 Sl. No. 28	Metering System: Bidders to deploy Energy meter of 0.5 class accuracy, Interface meter (ABT Meter) for recording export/import energy from/to BESS including CTs and PTs used in the energy metering at POC point of BESS (11kV RMU). In addition, energy meters of 0.5 class accuracy shall be provided for Aux. power supply. All Energy Meters shall be integrated with EMS System of BESS.	Nil	Modified as " <i>Bidders to deploy Energy meter of 0.2s class accuracy, Energy meter with 15-minute time block (TOD Meter) for recording export/import (bidirectional) energy from/to BESS including CTs (0.2s class for metering and suitable class for protection) and PTs (0.2 class for metering and suitable class for protection) used in the energy metering at POC point of BESS (11kV RMU). In addition, energy meters of 0.5s class accuracy shall be provided for Aux. power supply. All Energy Meters shall be integrated with EMS System of BESS.</i> "
3	102	Section 8 Sl. No. 35	Section 8- Additional details: New insertion of Clause for Pressure relief system for the Container in Sl. No. 35	Nil	Inserted 35 (iv). Suitable pressure relief system for the total container shall be provided and interlocked with the emergency tripping system.
4	100	Section 8 Sl. No. 30	Section 8- 30(ii) last paragraph: Penalty on AC-to-AC Round Trip Efficiency (RtE) shall be applicable for first 3years	Nil	Modified as " <i>Penalty on AC-to-AC Round Trip Efficiency (RtE) shall be applicable for the entire DLP period</i> "

Sl. No.	Pg. No.	Clause No.	As per Tender	Query raised by the Bidders	RPIPL Clarifications
5	83	Section 8 Sl. No. 15.7	Round Trip Efficiency: 15.7 Round Trip Efficiency without Auxiliary Consumption $\geq 85\%$	Nil	Modified as " <i>15.7 Round Trip Efficiency with Auxiliary Consumption $\geq 85\%$</i> "
6	78	4. Scope of Project	BESS shall comprises of Battery Modules & Connectors, Racks, Rack Control Boxes, Containers.	In our portfolio, we have battery racks that can be installed outdoors without a container. Can we consider racks and PCS that are capable of being installed outdoors without a container?	As per Tender conditions and Sl. No.07
7	90	Section 8 Sl. No. 13	i. Indoor PCS arrangement ii. Liquid Cooled PCS	The PCS we proposed are for outdoor application and air cooled. Can we proposed our standard product?	The Indoor PCS Arrangement in section 8, Sl. No.13 in Page No. 90-91 is modified as " <i>Indoor PCS Arrangement -The PCS (Power Conditioning System) arrangement shall be designed for installation inside the container. The container shall be adequately ventilated to ensure the temperature within, does not exceed the maximum permissible limit. The ventilation plant capacity and air quality inside the container shall comply with PCS and other auxiliaries' manufacturer's recommendations. Filter banks at the air inlet of the container shall be provided to prevent dust ingress. Ventilation shall be designed such that the temperature rise doesn't exceed 3 deg above ambient. All exhaust and fresh air fans should be provided with thermostat control. Complete inverter along with cooling system shall be of proven design.</i> "

Sl. No.	Pg. No.	Clause No.	As per Tender	Query raised by the Bidders	RPIPL Clarifications
8	8	1.03.04	Tender Fee & EMD	Will the previously deposited tender fee and EMD be retained or refunded? If refunded, when will it be processed? If required fresh tender fee and EMD then we request RPIPL to refund EMD and Tender document fees at earliest to enable us to participate in tender.	Tender fee is non refundable, EMD of the first tender will be refunded to the source of payment automatically as per extender terms. No EMD or Tender fee exemption for the present tender.
9	82	Battery Capacity	Installed battery capacity - 1000kWh (Dispatchable energy at the end of 5th year of continuous operation.)	Is the bidder required to maintain a capacity of 500 kW/1000 kWh at the end of the 5th year? Please clarify.	The Sl. No. 3 in Section 8 (Page 78) is modified as "The Contracted Capacity of the Project shall be in terms of "kW", which shall also be referred to as the Project Capacity. For a Contracted Capacity of 500 kW/1000 kWh, assuming an RtE of ≥85%. The Bidder shall make the BESS available for one (1) operational cycles per day, i.e. one (1) complete charge-discharge cycles per day with 90% DOD and 0.5C.
10	106	Annexure II: Battery	Battery Subtype Secondary (Rechargeable)	Please clarify the meaning	Secondary: Refers to rechargeable batteries (as opposed to "Primary" batteries, which are single-use and disposable). Rechargeable: Confirms that the battery can be charged and discharged repeatedly.

Sl. No.	Pg. No.	Clause No.	As per Tender	Query raised by the Bidders	RPIPL Clarifications
11	107	Annexure II : Battery	Minimum Battery Capacity: 1st Year- 97.5% 2nd Year- 95.0% 3rd Year- 92.5% 4th Year- 90% 5th Year-87.5%	If the battery proposed by us is not in line with this degradation, can we meet this requirement by installing additional capacity?	As per Tender conditions. The Min. Battery Capacity at the end of 5th Year shall be 1000 kWh (after degradation) $\geq 87\%$ of Battery Capacity rating, 90% DOD and 0.5C.
12	20	3.04	Scope of Contract	Technical Support for BESS during the 5-Year Contract Period. Does RPIPL require 24x7 dedicated manpower for the entire 5 years, or is the client comfortable with AMC periodic visits by service engineers? Please clarify.	As per clause 4.9.7 Defect Liability/Maintenance Period of the Tender.
13	Nil	3.05.1-ii	GST Registration	We have GST Registration in Mumbai and Delhi. Do we need to for Kerala. Please Clarify.	As per GST Regulations
14	58	4.21.0 & 4.22.0	Water and electricity by contractor own.	To be supplied by client with separate meter. Please Clarify.	The bidders shall meet all the supply arrangement cost for availing both Power and Water metered connections from the respective utility. The bidder has to pay the cost of power and water periodically at the rates against the monthly bills generated by the utility.

Sl. No.	Pg. No.	Clause No.	As per Tender	Query raised by the Bidders	RPIPL Clarifications
15	106	Annex 2 battery	Min Dispatchable Energy	Required for 10 Years or 5 Years. Please Clarify.	Annexure 2 "Min. Battery Energy capacity at the end of 10th Year (% of installed Capacity / rating)" is modified as " Min. Battery Energy capacity at the end of 05th Year (% of installed Capacity / rating) "
16	20	3.04	battery energy storage system on turnkey basis, including but not limited to: - LiFePO4 Battery modules, Battery Racks, Containers,	Our proposed system is compatible for outdoor applications and does not require any additional container or enclosure, as the OEM provides weatherproof enclosures for the supplied equipment. Therefore, no separate dedicated container is needed to house the BESS. Can we install the BESS without any container? Please Clarify.	As per Tender conditions and Sl. No.07
17	58	4.22.1	Electricity required for the construction and general lighting of the site will have to be provided by the Contractor at their own cost.	Can client will provide metered power supply and bidder will pay periodic bill against the consumption? Please Clarify.	Yes, As per Sl. No. 14
18	83	15.7	Round Trip Efficiency without Auxiliary Consumption $\geq 85\%$	Any limits on RtE with auxiliary? Pls confirm.	As per Sl. No. 05

Sl. No.	Pg. No.	Clause No.	As per Tender	Query raised by the Bidders	RPIPL Clarifications
19	59	4.24.5	General	Can we submit any minor deviation during bid submission?	As per Tender Clause No. 4.24.5
20	98	Section 8	General	Can the client provide a 415V feeder with a meter for the BESS auxiliary supply? Or do we need to consider a dedicated 11kV/415V step-down transformer for the auxiliary supply? Please confirm.	As per Section-8, Sl. No. 25 (Page 98) of the Tender
21	5	1.02.3	Minimum Eligibility Criteria	Addition of NGOs in Eligibility Criteria: We request that NGOs be included under Item No. 1.02.3, allowing registered NGOs to participate in the tender.	As per Tender Conditions
22	5	1.02.1	Minimum Eligibility Criteria	Manufacturer Documents in English and Experience Criteria Adjustment: Our manufacturer, based in China, has substantial experience in manufacturing Battery Energy Storage Systems (BESS). However, their major documents are in Chinese.	As per Tender Conditions

Sl. No.	Pg. No.	Clause No.	As per Tender	Query raised by the Bidders	RPIPL Clarifications
23	5	1.02.1	Minimum Eligibility Criteria	<p>In Item No. 1.02.1, the requirement specifies the bidder must have 10 years of experience in BESS. We request you to allow:</p> <ul style="list-style-type: none"> • Bidders who are authorized dealers of manufacturers with similar experience in BESS manufacturing and installation to qualify. • Submission of translated documents into English, along with a dealership certificate for the coming 6years of association with the manufacturer. (We will ensure the installation and commissioning will be done by the manufacturer itself). Our manufacturer in China possesses immense experience in BESS manufacturing and installation, and we can provide all necessary dealership certifications and supporting documents. 	As per Tender Conditions

Sl. No.	Pg. No.	Clause No.	As per Tender	Query raised by the Bidders	RPIPL Clarifications
24	13	1.13	The Contractor at his own cost shall rectify any defect that may appear during this period. During this period, the contractor shall without any extra cost, carry out all routine and special maintenance of the work executed by him and attend to any difficulties and defects that may arise in the operation.	Pls reword - The Contractor at his own cost shall rectify any defect that may appear during this period due to poor workmanship.	As per Tender Conditions
25	79	Section-8	Detailed design, engineering, Manufacturing, fabrication, Supply, transport, shipping, assembling, installation, erection, commissioning, testing (including pre commissioning and commissioning) of all the equipment and system(s) including civil works. Warrant and make ready for service a fully functional battery energy storage system on turnkey basis, including but not limited to: - Lithium-ion Battery modules, Battery Racks, Containers, Rack Control Boxes, Battery module	We request you to accept different chemistries to increase the competition and allow most competitive bids to be submitted.	As per Tender Conditions
26	20	3.04	Compatible and redundant Liquid / Air Cooling System for BESS including indoor or Outdoor Units, Controllers	We shall offer compatible split AC fitted in the container	As per Tender Conditions

Sl. No.	Pg. No.	Clause No.	As per Tender	Query raised by the Bidders	RPIPL Clarifications
27	21	3.04	Compatible Fire Detection & Suppression System for BESS including smoke detectors, Gas Detectors, Fire Dampers, Manual Call Points, Fire Controller, Abort & Emergency release switches, Cabling & integration along with Trays, Switches & Racks, etc. complete.	We shall suitably size Fire suppression system	As per Tender Conditions
28	21	3.04	Metering in AC & DC System for energy accounting purpose at requisite points (11 kV breakers, ACDBs, Auxiliary Distribution boards, DT, PCS, DCP, Battery	It will be provided at AC input point. EMS will record Power in / out of BESS. 11 kV RMU / IDT shall be outside of BESS	As per Tender Conditions
29	Nil	Nil	Guaranteed complete charge and discharge cycles -7500 Cycle	We request you to accept Max 4000 Cycle with one replacement of battery.	Guaranteed complete charge and discharge cycles 2000 Cycles as per Tender Conditions (Section-8, Sl. No.7 Page No.82)
30	83	Section 8	Battery cell discharge efficiency $\geq 95\%$	A-Hr efficiency min 90%, Watt-Hr efficiency Min. - 80%	As per Tender Conditions
31	83	Section 8	PCS Efficiency $>98.5\%$	Max 96.5%	As per Tender Conditions
32	83	Section 8	Transformer Efficiency $>98.9\%$	To Check	As per Tender Conditions
33	83	Section 8	HV Cable efficiency between Transformer to 11 kV Switchgear & 11 kV Switchgear to Grid Point of Connect	Our scope is up to Poc	As per Tender Conditions
34	83	Section 8	BESS Auxiliary Consumption (%) (Discharging) $>98.8\%$	To Check	As per Tender Conditions

Sl. No.	Pg. No.	Clause No.	As per Tender	Query raised by the Bidders	RPIPL Clarifications
35	83	Section 8	Round Trip Efficiency without Auxiliary Consumption $\geq 85\%$	80-85%	As per Sl. No.5
36	NA	NA	Isolation transformer	We have reviewed the tender document and noticed that it does not specifically mention the requirement for an isolation transformer. Please clarify if an isolation transformer is necessary for this project.	Isolation transformer is not envisaged for this project.
37	82	Section 8	BESS Life excluding Battery 10 Years from Date of Commissioning, DLP period 5 years	Please clarify if the overall system warranty is 5 years or 10 years.	As per Section 8, Sl. No. 7 (9&10) in Page No. 82 of Tender
38	102	Section 8	For integration of SCADA with SLDC / Kalamassery, the fee for cyber security arrangements.	Please confirm if new RTUs are required for SCADA integration with SLDC/Kalamassery? if dedicated SCADA with RTU required Please share the details	As per Tender Conditions
39	99	Section 8	Bidder shall submit the Factory Acceptance Test (FAT) and Site Acceptance Test (SAT) Plan for RPIPL review and approval during detailed engineering.	Is it possible to conduct the Factory Acceptance Test (FAT) either in person or online?	The Factory Acceptance Test (FAT) will be either in person or online, which will be finalised during detailed engineering approval.

Sl. No.	Pg. No.	Clause No.	As per Tender	Query raised by the Bidders	RPIPL Clarifications
40	82	Section 8	BESS Type Indoor or outdoor	Please clarify the difference between indoor and outdoor BESS configurations. Does 'indoor' refer to a controlled room environment for batteries, PCU, and accessories, while 'outdoor' implies a containerized solution?"	As per Tender conditions and Sl. No. 07
41	5	1.02.1.	The bidder shall have satisfactorily completed the work of Design, Supply, Installation, Testing and Commissioning of Grid Connected Battery Energy Storage System in India/abroad with in the last ten years as on date of submission of bid (Copy of the Performance certificate issued by the Client in English language shall be submitted.	Kindly confirm whether the authorized partner of the Original Equipment Manufacturer (OEM) is allowed to participate in the tender as a bidder. An authorization certificate along with a copy of the agreement between the bidder and the Original Equipment Manufacturer regarding service and maintenance support shall be submitted by the Authorized bidder	As per Tender Conditions

Sl. No.	Pg. No.	Clause No.	As per Tender	Query raised by the Bidders	RPIPL Clarifications
42	21	3.04	Compatible Electrical system (including protection) up to Point of Connect (11kV) comprising Power Conditioning System (PCS), Intermediate Distribution Transformer (11kV/LT,630kVA Delta/star, Dyn-11), 11 kV SF6-RMU Panels, HT/LT AC/DC Cables (along with cable trays /trenches), Earthing System, 11 kV grid integration.SF6-RMU Panels, HT/LT AC/DC Cables (along with cable trays / trenches), Earthing System, 11 kV grid integration.	Kindly Confirm the distance from PCC to RMU.	As per Tender Conditions (Section-8, Sl. No. 16 in Page No.93)
43	82	Section 8	General design features of BESS: Installed Battery Capacity at 25 Deg Cel & Full Load 1000kWh (Dispatchable energy at the end of 5th year of continuous operation)	However, No battery can be performing 100% capacity at the end of 5th year so kindly confirm for 1000 kWh capacity can be go with higher rating capacity to achieve 1000kWh capacity at the end of 5th year.	As per Tender Conditions

Sl. No.	Pg. No.	Clause No.	As per Tender	Query raised by the Bidders	RPIPL Clarifications
44	20	3.04.	Erection, commissioning and testing (including labour and supervision) of BESS and its components, establish grid connectivity of BESS at 11 kV Grid Point, associated civil & fabrication works, EMS system and BESS integration with KSEBL SCADA System, supply of mandatory spares and Technical Support of BESS for Contract period (5Years), including DLP	Need to required the site visit at the actual site location	As per Tender Conditions
45	39	4.6.20	Contractor shall prepare at his own cost all fabrication drawings of all structural steel works and bar bending schedule for RCC works and submit them to the Client/Consultant for their approval at least before 15 days of commencing the fabrication. All the details like sizes, capacities, dimensions, arrangement of fabrication etc. should be clearly indicated on these drawings.	Need to required the site visit at the actual site locatio	As per Tender Conditions

Sl. No.	Pg. No.	Clause No.	As per Tender	Query raised by the Bidders	RPIPL Clarifications
46	100	Section 8	Bidder shall guarantee a minimum AC to AC RtE of 85% on monthly basis at Grid Point level.	Bidder request that as per industry standards, the guaranteed minimum AC to AC RTE may please be revised to 80%. The same is also being followed by NTPC, SECI, BSPGCL as well. Please accept.	As per Tender Conditions
47	100	Section 8	Bidder shall guarantee a minimum AC to AC RtE of 85% on monthly basis at Grid Point level.	ABT meters fixed in 11 kV HT panels will be taken as reference for RTE - kindly confirm.	As per Tender Conditions and Sl. No.5
48	49	4.15	BILLING AND PAYMENTS	Bidder request that following payment terms may please be accepted: 1. 10% interest-free advance on contract signing. 2. 60% against despatch on pro-rata basis through LC at sight 3. 20% against erection and commissioning 4. 10% on completion of facilities and issuance of taking over certificate	As per Tender Conditions

Sl. No.	Pg. No.	Clause No.	As per Tender	Query raised by the Bidders	RPIPL Clarifications
49	11	1.05	<p>PERFORMANCE GURANTEE (PG) The successful Tenderer on receipt of the Work Order, shall deposit an amount equal to 5 % (five percent) of the contract value, as Performance Guarantee.</p>	Bidder understands that only a Performance BG equivalent to 5% of the contract value to be furnished by successful Bidder and there shall be no further 'Product assurance guarantee / battery life cycle guarantee/other performance BG' to be submitted by successful Bidder. Please confirm.	Performance Guarantee as per clause 1.05 of the Tender applicable
50	13	1.14	The period of work shall be 6 months from the date of commencement.	Bidder request that project completion timeline of 6 months from release of 10% interest free advance payment may please be accepted.	As per Tender Conditions
51	94	General	Approved Cable makes: 11 kV – Sterlite, KEC, Universal Cables, Polycab LT Cable – Apar, Ravin, KEC,	Other standard cable makes may also be kindly accepted.	As per Tender Conditions
52	91	General	PCS output power shall remain within 1% of the set value, for AC input variation of +/- 10%. PCS shall be able to provide 0.8 lead to 0.8 lag reactive power support without curtailing the active power	PCS output shall be able to provide 0.95 lead to 0.95 lag reactive power support without curtailing the active power - RPIPL may accept the same.	As per Tender Conditions

Sl. No.	Pg. No.	Clause No.	As per Tender	Query raised by the Bidders	RPIPL Clarifications
53	4.9.7	General	Nil	Bidder understanding is there is no O&M linked - kindly confirm.	Defect Liability / Guarantee Period (DLP) as per clause 4.9.7 of the tender.
54	NA	General	Nil	BESS DC bus voltage may be rated for 1500V DC. RPIPL may kindly accept.	As per Tender Conditions
55	NA	General	Nil	RPIPL may allow 600 V to 690V / 11kV transformer.	As per Tender Conditions
56	NA	General	Nil	RPIPL may confirm the communication protocol.	As per Tender Conditions
57	NA	General	Nil	RPIPL may confirm the LDC requirement.	As per Tender Conditions
58	NA	General	Nil	Non local content suppliers may please be allowed - RPIPL may kindly confirm.	As per Tender Conditions
59	NA	General	Nil	RPIPL is requested to provide Soil test report.	Soil is lateritic strata
60	NA	General	Nil	RPIPL is requested to provide Topography report.	The general topographic strata of RPIPL are detailed as follows: Rainfall: 330 cm (avg)/annum Height: 30 to 45 m from MSL, Wind velocity: 10 to 24 Kmph. However, as the above topographic details are general values, the bidders are advised to conduct a site-specific topography analysis during the project implementation phase for accurate design and planning purposes.

Sl. No.	Pg. No.	Clause No.	As per Tender	Query raised by the Bidders	RPIPL Clarifications
61	NA	General	Nil	As global holidays for Christmas New Year from 25th to 1st of January, Kindly extend the tender for 10 days, till January 10th	No time extension for the Tender. Closing date & time as per the Tender Conditions.

Dated: 17.12.2024
Place: Irpaaram

Sd/-
Managing Director
Rubber Park India (P) Ltd