

**INVITATION OF BIDS
REQUEST FOR PROPOSAL (RFP)**

FOR

**SUPPLY, INSTALLATION & COMMISSIONING OF
RECHARGEABLE LITHIUM-ION BATTERY FOR MSS
TERMINALS (XPONDERS) IN MARINE FISHING VESSELS**



29th October 2024

NewSpace India Limited

[A Government of India company under Department of Space]
Bengaluru – 560 094

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VOLUME I

RFP & INSTRUCTION TO BIDDERS

Volume I: RFP and Instruction to Bidders RFP letter of Invitation

Letter of Invitation



NewSpace India Limited

[A Government of India company under Department of Space]

Ref: NO. NSIL/ RFP/ MSS/ BAT/ 2024/ 01

Date:29th October'24

Sub: Supply, Installation and Commissioning of Rechargeable Lithium-Ion Battery for MSS Terminals (Xponders) in Marine Fishing Vessels - Reg

1. NewSpace India Limited (NSIL), a wholly owned Government of India company under Department of Space (DOS), is the commercial arm of Indian Space Research Organization (ISRO). NSIL as part of its mandate to commercially exploit the products and services emanating from Indian Space Programme, is keen to harness the potential of indigenously developed ISRO technology and provide space-based solutions to meet various requirements including the requirements from Govt. and strategic sector related to telecommunication, broadcasting, security etc.
2. NSIL, hereby invites through this Request for Proposal ("RFP"), the interested bidders for Supply, Installation and Commissioning of Rechargeable Lithium-Ion Battery for MSS Terminals (Xponders) in Marine Fishing Vessels
3. Interested Bidder/Vendors (viz. our Registered Bidder/Vendors) shall visit the URL i.e. <https://etenders.gov.in/eprocure/app> for downloading of tender documents, bid preparation, hash submission, bid submission etc. The Tenders shall be duly digitally signed and encrypted by the Tenderers using their Digital Signature Certificate.
4. The tender in response to this tender is to be submitted electronically in place of offers in 'Hard Copy under Sealed Envelope' as is being done conventionally. Tender Submission, Tender Closing and Opening activities will be done electronically and online. No oral, email, telephone, telegraphic tenders or tenders submitted in hard copies/physical form will be entertained.

The address and contact numbers for sending Bid or seeking clarifications, if any, regarding this RFP are given below:

(a)	Bid/Queries are to be addressed to	Dy. Manager, Commercial
(b)	Name/Designation of the contact person	Dy. Manager, Commercial
(c)	Telephone number of the contact person	080-2322 7777 (Ext: 137)
(d)	E-mail ID of contact person	E-mail: purchase@nsilindia.co.in

5. Details regarding cost of the bid document, validity of the bids, mode of submission of bids, evaluation criteria and the EMD to be enclosed and payment terms are defined in detail in the RFP.
6. The RFP consists of three volumes viz.
- Volume I : RFP and Instruction to Bidders
 - Volume II : Detailed Scope of Work & Deliverables, Technical Specifications, QA Requirements, Program Management, Test Plan and Delivery schedule
 - Volume III : General conditions of contract & special conditions of contract
7. Schedule of the Bidding Process is as follows:

S. No.	Activity	Schedule
a)	Document reference No	NSIL/ RFP/ MSS/ BAT/ 2024/ 01
b)	RFP issue date	Refer e-Tender portal
c)	Last Date for Receipt of Clarification	
d)	Submission of Bid*	

-Sd-
Dy. Manager,
Commercial

Chapter 1: Introduction

1.1. NewSpace India Limited

NewSpace India Limited (NSIL), a Government of India company under Department of Space (DOS), is the commercial arm of Indian Space Research Organisation (ISRO). NSIL has the mandate of enabling Indian Industries to scale up high-technology manufacturing and production base for meeting the demands from domestic and international customers. NSIL's major businesses involves building satellite and launch vehicles; owning and operating satellites; providing launch services onboard ISRO's operational launch vehicles to global customers; providing satellite-based services (Earth observation and communication); establishing ground segment and providing mission support services; and technology transfer to Indian Industries.

NSIL as part of its mandate to commercially exploit the products and services emanating from Indian Space Programme, has been engaged by the Department of Fisheries (DoF) as an implementation agency for the national rollout plan of on-field deployment of MSS Xponder for marine fishing vessel and implementation in all coastal states including union territories. These Xponders would be used for communication and support services to marine fishing vessels to ensure safety and security of fishermen.

In accordance with the electrical power requirements of these Xponders, NSIL is initiating procurement of the Li-ion batteries.

1.2. Objective of the RFP

NSIL through this RFP aims to select Bidder/Vendor(s) for Supply, Installation and Commissioning of Rechargeable Lithium-ion Batteries and its associated accessories for MSS Terminals (Xponders) in Marine fishing vessels (motorized boats) on field across the 9 coastal states and 4 union territories. The broad scope of work is as defined under: -

1. Supply, installation and commissioning of rechargeable Li-ion batteries with Battery Management System (BMS; including battery protection circuits, charge indicator etc.) for the Xponders dedicated to fishing vessels, as per the technical specifications indicated in [Volume-II](#)
2. Ensure compatibility of the battery interface and connector design for mating the battery with the Xponders
3. Supply and installation of battery's detachable case on the mast/pole/wall of the fishing vessel (motorized boat). The case must be able to contain the battery, should

be easy to mount / detach on the boat and contain necessary ports for connecting/disconnecting the Xponder as well as the battery's charging cable

4. Provision of battery's charger, designed in accordance with the relevant specifications of the battery, along with its necessary accessories including the AC adaptor (compatible with 5A household socket) and battery charging cable
5. Provision of 5-year on site Comprehensive warranty (2 Years Std. Warranty and 3-years Extended Warranty i.e post completion of 2 years Std. Warranty) on the Li-ion battery and all the associated accessories

The objective of the present RFP is to seek proposals from bidders for carrying out the above-mentioned work for 45,252 (Forty-five Thousand Two Hundred and Fifty-Two) user terminals (Xponders) on marine fishing vessels (motorised boats) across 9 coastal states & 4 union territories. State-wise quantity of the batteries is indicated in Annexure 7.1 of this Volume. The Bidder/Vendor must carry out the work on field under the guidance of the Department of Fisheries (DoF), hereafter termed as the “**user / user agency**”.

The scope of work as indicated in this RFP could be carried out by the Bidder/Vendor as an OEM and/or subcontracting the manufacturing and installation of the deliverables, and therefore, could submit the bid as a single nodal agency. However, the term “**Bidder**” or “**Bidder/Vendor**” used in this RFP implies the bidding nodal agency as well as the sub-contractor responsible for the concerned hardware, and therefore, the specifications and actions mentioned thereunder are applicable to nodal agency as well as the respective subcontractor(s).

NSIL may opt to interact with the subcontractor with regards to any detail relevant to the scope of work as defined in this RFP and it shall be the responsibility of the nodal agency to facilitate such interactions.

Chapter 2: Definitions

Definitions

Sr. No	Term/ Acronym	Description
1.	Applicable Law(s)	Any statute, law, ordinance, notification, rule, regulation, judgment, order, decree, bye-law, approval, directive, guideline, policy, requirement or other governmental restriction or any similar form of decision applicable to the relevant party and as may be in effect on the date of the execution of this Agreement and during the subsistence thereof, applicable to the Project.
2.	Affected Party	Means Owner or the Contractor whose performance has been affected by an event of Force Majeure
3.	Authority	Shall mean the NewSpace India Limited (NSIL), a Government of India company under Department of Space (DOS), a commercial arm of Indian Space Research Organization (ISRO)
4.	Site/ Location	Means the identified locations for the installations of Li-ion batteries in 9 coastal states and 4 Union territories (UTs)
5.	Authorized Signatory	A person who is duly authorised from the bidder through the Power of Attorney (Volume I Annexure 7.5) in respect to take all decisions related to the RFP and sign on behalf of the bidder.
6.	Appointing Authority	for the purpose of arbitration shall be the any person so designated by the Owner.
7.	Arbitrator	means the person or persons appointed by agreement between the Owner and the Contractor to make a decision on or to settle any dispute or difference between the Owner and the Contractor referred to him or her by the parties.
8.	ATP	ATP means Acceptance Test Plan document to be provided by the bidder for qualification of the Li-ion batteries for MSS terminals to meet the technical specifications

Sr. No	Term/ Acronym	Description
9.	Bid	Offer by the Bidder to fulfil the requirement of the Purchaser for an agreed price. It shall comprise of a comprehensive technical and financial response to the RFP
10.	Bid Document	The document submitted by the Bidder containing a comprehensive technical and financial response to the RFP
11.	Bid Due date	Shall mean as defined in bidding schedule provided in the letter of invitation in this RFP
12.	Bidder	Shall mean a party or parties being legal person/(s) owned by Resident Indian citizens with at least majority of the Board of Directors being Resident Indian citizens and may be a Private or Public Company, Listed or Unlisted Company registered in India, who is a legal person as above. A Company would be deemed to be owned by resident Indian Citizens, if more than fifty (50) percent of equity shares of the Company are owned by Resident Indian Citizens or Companies and/ or LLPs registered in India that are, in turn, ultimately owned and controlled by Resident Indian Citizens
13.	BoM	Shall Mean Bill of Material
14.	Completion	Shall mean the fulfilment of the Related Services by the Bidder/Vendor(s) in accordance with the terms and conditions set forth in the Contract
15.	Company	means a body incorporated in India under the Indian Companies Act, 1956 or Companies Act, 2013 including any amendment thereto.

Sr. No	Term/ Acronym	Description
16.	Conflict of Interest	<p>A Bidder shall be deemed to have a Conflict of Interest affecting the Bidding Process, if:</p> <p>The Bidder(s) (or its members) have common controlling shareholders or other ownership interest; However, this disqualification shall not apply in cases where the direct or indirect shareholding of a Bidder (or its members) is only a minor shareholding of less than 5%; OR</p> <p>A constituent of such Bidder is also a constituent of another Bidder; OR</p> <p>Such Bidder (or its members) receives or provides any direct or indirect subsidy, grant, concessional loan or subordinated debt from any other Bidder (or its members); OR</p> <p>Any two Bidders have the same legal representative for purposes of this Tender; OR</p> <p>There is access of information or influence between any two Bidders of this Tender by virtue of a relationship, directly or through common third party/ parties; OR</p> <p>Any Bidder (or its members) who has participated as a consultant to the Authority in the preparation of any documents, design or technical specifications of this Engagement</p>
17.	Contract	Provisional Purchase Order/ Purchase Order (PO)
18.	Commissioning	Means a project shall be considered commissioned if all equipment/ terminals/ hardware/ software/ firmware, mentioned under the scope of contract, has been successfully installed and ready for operation.
19.	Deliverables	Shall include but not limited to the design, supply, installation, and commissioning of Li-ion batteries and associated accessories as per RFP.
20.	EMD	Earnest Money Deposit
21.	GCC	General Conditions of Contract

Sr. No	Term/ Acronym	Description
22.	Goods	All of the equipment, sub-systems, hardware, software, products accessories, software and/or other material / items which Bidder is required to deliver under the scope of work.
23.	Intellectual Property Rights	Any patent, copyright, trademark, trade name, service marks, brands, proprietary information whether arising before or after the execution of this Contract and the right to ownership and registration of these rights.
24.	ISRO	Indian Space Research Organisation
25.	MSS	Mobile satellite services
26.	NDA	Non-Disclosure Agreement
27.	Non-Compliance	Shall mean failure/refusal to comply the terms and conditions of this RFP/ tender
28.	Non-responsive	means failure to furnish complete information in a given format and manner required as per the tender documents or non-submission of tender offer in given forms / proforma or not following procedure mentioned in this tender or any of required details or documents is missing or not clear or not submitted in the prescribed format or non-submission of tender fee on EMD
29.	Notice	a notice; or a consent, approval or other communication required to be in writing under this Contract.
30.	NSIL	NewSpace India Limited
31.	Party & Parties	Shall mean the party and its plural parties has been used to indicate bidder and bidders, the two terms shall hold the same meaning in this document
32.	Required Consents	The consents, waivers, clearances and licenses to use Authority's Intellectual Property Rights, rights and other authorizations as may be required to be obtained for the software and other items that NSIL and their nominated agencies are required to make available to Bidder pursuant to this Agreement;
33.	SCC	Special Conditions of Contract
34.	Selected Party	Shall be defined as Bidder who has been selected through the bidding process and with whom the Authority shall get into a contract for undertaking the work described in this RFP, as defined in this RFP

Sr. No	Term/ Acronym	Description
35.	Sub-Contractor	Shall mean the entity named in the contract for any part of the work or any person to whom any part of the contract has been sublet with the consent in writing of the Authority and the heirs, legal representatives, successors and assignees of such person
36.	Technical Bid	Shall be as defined in Volume I Section 3.16.1 of this RFP
37.	Technically Qualified Bidder	The bidder who has submitted the response in compliance with the RFP term and has been meeting the eligibility criteria would be declared as Technically Qualified Bidder.
38.	Tender Evaluation Committee (TEC)	Shall mean the committee formed by the Authority to evaluate the response to this RFP
39.	Xponders	MSS user Terminals to be installed as part of satcom network for establishing vessel communication and support systems on marine fishing boats
40.	Vendor	Successful Bidder

Chapter 3 : Instruction to Bidders

3.1. General

- a. All information supplied by the Bidders as part of their bids in response to this RFP, may be treated as contractually binding on the Bidders, on successful award of the assignment by the Authority based on this RFP.
- b. No commitment of any kind, contractual or otherwise shall exist unless and until a formal written contract has been executed by Authority. Any notification of preferred bidder status by Authority shall not give rise to any enforceable rights by the Bidder. Authority may cancel this public procurement at any time prior to a formal written contract being executed by Authority.
- c. Sealed bids shall be received by the Authority at the address indicated in the schedule of the Bidding Process before the time and date specified in the schedule of the Bidding Process.
- d. In the event of the specified date for the submission of tender offers being declared a public holiday, the offers will be received up to the appointed time on the next working day. The Authority may, at its discretion, extend this deadline for submission of offers by issuing corrigendum and intimating the Bidders through e-mail.

3.2. Language of Bid submission

The bid should be prepared and submitted by the Eligible Bidders in English language only. If any submitted supporting documents are in any language other than English, translation of the same in English language is to be provided (duly attested by the Authorized Signatory) by the Eligible Bidders. For purposes of interpretation of the documents, the English translation shall govern.

3.3. Eligibility Criteria

The bidder shall meet the following technical criteria:

- a. The bidder must be an Indian company; and
- b. The bidder must bid for the rechargeable Li-ion battery and the associated accessories necessary for the installation and commissioning including, but not limited to, mating interface with the power out wiring from Xponders, battery case, clamp/screws needed for mount (for mounting the case with the battery on pole/mast/wall of the dedicated marine fishing vessel), battery charger and its associated cables, as indicated in the Volume II of this RFP; and

- c. The Bidder shall have minimum 2 years of experience during the last 5 years in execution of the contracts for the supply of the rechargeable Li-ion batteries or any electronic system with rechargeable Li-ion batteries operating in marine environment of project value of minimum INR 10 Cr.;
- d. The Average Annual Financial Turnover of the bidder during last three financial years (i.e. FY 2021-22, 2022-23 & 2023-24) should be equal to or more than INR 25 Cr. Further, the Net Worth of the Bidder should be positive in the Financial Year 2023-24.

3.4. Bidder to Inform

The Bidder shall be deemed to have carefully examined the Terms & Conditions, Scope, Delivery Schedule, Specifications, and Schedules of this RFP. If bidder has any doubts/clarifications as to the meaning of any portion of the Conditions or the specifications he shall, before the last date for Submission of Pre-Bid Queries set forth the particulars thereof and submit them to Authority in writing in order that such doubt may be removed, or clarifications are provided. The timeline for submission of Pre-Bid Queries is indicated in the Schedule of the Bidding Process in the letter of invitation in this RFP.

3.5. Compliant Bids/ Completeness of Response

- a. The Eligible Bidders are advised to study all instructions, forms, terms, requirements, and other information in the RFP documents carefully. Submission of the bid shall be deemed to have been done after careful study and examination of the RFP document with full understanding of its implications.
- b. Failure to comply with the requirements of this paragraph may render the bid non-compliant and the Bid may be rejected. The Eligible Bidders must:
 - i. Include all documentation specified in this RFP, in the bid
 - ii. Follow the format of this RFP while developing the bid and respond to each element in the order as set out in this RFP
 - iii. Comply with all requirements as set out within this RFP

3.6. Authentication of Bids

- a. The Authorized Signatory of the Bidder shall initial all pages of the Technical and the Financial Bids.
- b. Bid should be accompanied by an authorization in the name of the Authorized

Signatory of the Bid. The authorization shall be in the form of a written power of attorney accompanying the Bid as per the attached format in [Volume I Annexure 7.5](#) of this RFP

3.7. Total Responsibility

- a. The Bidder shall issue a statement undertaking total responsibility for delivery, installation and commissioning of the components and systems described in the Detailed Scope of Work and Technical Specifications ([Volume II](#)) of this RFP as per the format mentioned in [Volume I Annexure 7.8](#)

3.8. Deviations and Exclusions

- a. Bids shall be submitted strictly in accordance with the requirements and terms and conditions of the RFP.
- b. Bidders are advised not to take any exception/ deviations/ exclusions to the RFP. However, during evaluation of bids NSIL may ask the bidder for clarifications/ confirmations/ deficient documents of its bid. If the bidder still maintains exceptions/ deviations/ exclusions in the bid, such conditional/ non-conforming bids shall not be considered and shall be rejected.
- c. The Bidder shall submit a No Deviation Certificate as per the format mentioned in [Volume I Annexure 7.9](#) of this RFP
- d. Non-Conforming bids: -
A bid may be construed as a non-conforming bid and ineligible for consideration:
 - i. If it does not comply with the requirements of this RFP.
 - ii. If a bid does not follow the format requested in this RFP or does not appear to address any particular requirements of the scope of work.
 - iii. If a bid deviates from terms and conditions of the RFP

3.9. Late Bids

- a. Late submission will not be entertained
- b. Authority shall not be responsible for any non-receipt/ non-delivery of the documents due to technical snag whatsoever at Bidder's end. No further correspondence on the subject will be entertained.
- c. The bids submitted by telex/ telegram/ fax/ e-mail etc. shall not be considered. No correspondence will be entertained on this matter.
- d. Authority reserves the right to modify and amend any of the above-stipulated condition/ criteria with due notice to the respective Bidders.

3.10. Acceptance/Rejection of Bids

- a. Authority reserves the right to reject in full or part, any or all bids without assigning any reason thereof. Authority reserves the right to assess the Bidder's capabilities and capacity. The decision of the Authority shall be final and binding.
- b. Bid should be free of over writing. All erasures, correction or addition must be clearly written both in words and figures and attested by the Authorized Signatory.
- c. In the event of any assumptions, presumptions, key points of discussion, recommendation(s) or any points of similar nature submitted along with the Bid, Authority reserves the right to reject the Bid and forfeit the EMD.
- d. If there is any discrepancy in the Financial Bid, it will be dealt with as per the following:
 - i. If, in the price structure quoted for the required goods/services/works, there is discrepancy between the unit price and total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly.
 - ii. If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail, and the total shall be corrected.
 - iii. If there is a discrepancy between words and figures, the amount in words shall prevail.
 - iv. If there is such discrepancy in an offer, the same shall be conveyed to the bidder with target date up to which the bidder has to send his acceptance on the above lines and if the bidder does not agree to the decision of the Authority, the bid is liable to be disqualified.

3.11. Disqualification

The bid is liable to be disqualified in the following cases or in case bidder fails to meet the bidding requirements as indicated in this RFP:

- a. During validity of the bid, or its extended period, if any, the Eligible Bidders revise their quoted prices without change of scope having been expressly specified by NSIL
- b. The Eligible Bidders' bid is conditional and has deviations from the terms and conditions of RFP
- c. Bid is received in incomplete form

- d. Bid is not accompanied by all the requisite documents as per the terms and formats provided in this RFP
- e. Information submitted in technical bid is found to be misrepresented, incorrect or false, accidentally, unwittingly or otherwise, at any time during the processing of the contract (no matter at what stage)
- f. Financial bid is enclosed with the same envelope or document as the technical bid.
- g. The Eligible Bidders try to influence the bid evaluation process by unlawful/ corrupt/ fraudulent means at any point of time during the bid process

3.12. Bid Validity Period

- a. Bid shall remain valid for a period of 120 days from the bid submission closing date.

3.13. Withdrawal, Substitution, and Modification of Bids

- a. An Eligible Bidder may withdraw its Bid (technical and/ or financial) by writing to the address indicated for bid submission in the schedule of the bidding process prior to final bid submission date indicated in the schedule of the bidding process. Withdrawal of the Bid may lead to forfeiting of the EMD made by the Bidder.
- b. Request for withdrawal of a bids post the bid submission deadline shall normally not be considered, however in case a Bidder still wishes to withdraw a bid post the bid submission deadline the Bidder shall forfeit the EMD and the Authority may give the Bidder a tender holiday including intimation to other government departments.
- c. In case a bidder has submitted multiple bids, the latest submitted bid shall be considered

3.14. Bid document cost

- a. The bidders can download the RFP by registering themselves in NSIL website. The cost of the bid document is Rs.5,900/- (Five Thousand Nine hundred only).
- b. The cost of the bid document may be paid in the form of Demand Draft (DD) in favour of "NewSpace India Limited" payable at "Bangalore". Bid responses without document cost will be rejected outrightly.
- c. The Eligible Bidder shall bear all expenses associated with the preparation and submission of its bid, including expense of presentations, visit to the site/ NSIL centres etc. for the purposes of clarification of the bid.

3.15. Contents of Bid

- a. The Bidders shall submit Three envelopes: one containing the Technical Bid, the second containing the Financial Bid and the third containing EMD & Bid document Cost.
- b. Under the Bidding Process, Technical Bid of the Eligible Bidders shall be examined with respect to the Technical and Financial Capacity as indicated in [Volume I Section 3.16](#) of this RFP. For the Technically Qualified Bidders, the Financial Bid (Envelope B) shall be opened and the Bidder with the Lowest quote shall be identified as L1 Bidder. The second lowest bidder shall be identified as L2 Bidder and so on as L3, L4...in accordance with the ascending order of their price bids.
- c. NSIL reserves the right to split the contract the details of which are indicated in [Volume I Section 4.4.3](#)
- d. Prices shall not be indicated in the Technical Bid and shall only be indicated in the Financial Bid. Any Technical bid that indicates price(s) is liable to be summarily rejected and the EMD forfeited.
- e. All the pages of the bid must be sequentially numbered. The bid documents must contain in the beginning of the document, a list of contents with page numbers. Any deficiency in the documentation may result in the rejection of the Bid.
- f. Bidder must submit para-wise compliance to the RFP requirements as part of its proposal. Partial compliance or non-compliance to any of the requirements must be clearly outlined.

3.16. Bid Document Constituents

3.16.1. Technical Bid

1. The Bidder Shall submit documentary evidence against each requirement in the Technical Bid. Failure to submit necessary and appropriate documents may lead to rejection of the Bid
2. **Failure to meet technical requirements as in [Annexure 7.3](#) may lead to rejection of the Bid.**

3.16.2. Financial Bid

- a. The Bidder must submit the Financial Bid to indicate the price as per the format indicated in [Volume I Annexure 7.12](#) of this RFP
- b. The total price quoted for the intended scope of work shall form the basis of comparison between the eligible bidders
- c. The Bidders shall quote for the entire scope of contract on a “overall responsibility” basis such that the total bid price covers all obligations of the Eligible Bidders, mentioned in or to be reasonably inferred from the bidding documents in respect of providing the product/services, including transportation of system/ hardware to Authority designated site locations.
- d. The Bidders shall give the required details of all applicable taxes, duties, other levies and charges including transportation costs, etc. in respect of direct transaction between the Authority and the Eligible Bidder in the financial Bid
- e. Prices quoted by the Eligible Bidder shall remain firm at the time of submitting the bid. A bid submitted with an adjustable price quotation shall be treated as non-responsive and rejected.
- f. No price escalation by the bidders shall be permitted during the contract period. The bidders are advised to quote a firm price that shall be valid for the entire duration of the contract
- g. The Bidders shall quote prices in INR only. Any financial bid not in INR shall be summarily rejected

3.17. Earnest Money Deposit (EMD)

- a. EMD of Rs. 10,00,000 (Ten Lakh rupees only) shall be made through Bank Guarantee in favour of “NewSpace India Limited.”.
- b. For Unsuccessful bidders: The EMD of all unsuccessful eligible bidders would be

refunded without interest by Authority on finalization of the bid in all respects by the successful bidder (Selected Party). This would normally happen within 6 months from the date specified for receipt of response to this RFP.

- c. For the Selected Party: The EMD of the Selected Party would be returned without interest upon submission of Performance Bank Guarantee by the Selected Party.
- d. In case bid is submitted without the EMD then Authority reserves the right to reject the bid without providing opportunity for any further correspondence to the bidder concerned.
- e. The EMD may be forfeited in any of the following circumstances:
 - i. If a bidder withdraws its bid during the period of bid validity period as specified in this RFP and as extended by mutual consent of the respective Bidder (s) and the Authority
 - ii. In case of a successful bidder, if the Selected Party fails to sign the contract in accordance with this RFP or furnish the Performance Security within the period prescribed thereof in the Agreement
 - iii. If the Financial Bid is found to be qualified or conditional
 - iv. If the Bidder engages in a corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice as specified in the RFP.
 - v. If the Bidder is otherwise in breach of the terms of this document.

3.18. Pre-Bid Meeting

A Pre-Bid meeting shall be held as per the date and time mentioned in e-tender portal. The Pre-Bid meeting will be conducted in both online and in-person formats to accommodate all participants. The representatives attending the pre-bid meeting must carry an authority letter duly signed by the authorized signatory of his/her organization permitting the representatives to attend the pre-bid meeting on behalf of the respective bidder. During the course of Pre-Bid Meeting, the Bidders will be free to seek clarifications and make suggestions for consideration by the Employer. The Employer will endeavor to provide clarifications and such further information as it may, in its sole discretion, consider appropriate for facilitating a fair, transparent and competitive selection process.

Chapter 4: Evaluation Criteria and Selection Process

4.1. Opening of Bids

- a. The Bids received by the Authority shall be opened by the Authority in presence of the Eligible Bidders or their representatives who may choose to be present at the time of opening.
- b. The representatives of the Eligible Bidder shall be required to carry the identity card and a letter of authority from the bidder firms to identify that they are bona fide representatives of the bidder firm, for attending the opening of bid.
- c. There will be two bid-opening events
 - i. **Technical bid opening**
 - ii. **Financial bid opening**
- d. The venue, date and time for opening the Technical bid will be indicated in e-Tender portal
- e. The date and time for opening of the Financial Bid shall be communicated to the Technically qualified Bidder through email.
- f. The Financial Bids of only those Eligible Bidder will be opened who are found to be technically qualified as per the RFP criteria.

4.2. Preliminary Examination of Bids and Responsiveness Test

- a. Authority may constitute a Tender Evaluation Committee (TEC) to evaluate the responses of the Bidder. The Authority / Tender Evaluation Committee (TEC) shall evaluate the responses to the RFP and all supporting documents/documentary evidence. Inability to submit requisite supporting documents/documentary evidence by Eligible Bidder may lead to rejection of their bids.
- b. Authority/ TEC shall examine the bids to determine whether they are complete, whether the documents have been properly signed and whether the bids are generally in order. Any bids found to be nonresponsive for any reason or not meeting any criteria specified in the RFP, shall be rejected by Authority and shall not be included for further consideration.
- c. Initial Bid scrutiny shall be held, and bids will be treated as non-responsive, if bids are:
 - i. Not submitted in format as specified in this RFP document
 - ii. Submitted without the documents in the manner and format provided in this RFP
 - iii. Submitted without a Document/ Documentary Evidence indicated in the list of Technical bid constituents indicated in [Volume I Section 3.16.1](#) of this RFP

- iv. Found with suppression of details, or the information provided in the bid amounts to misrepresentation of fact
- v. With incomplete information, subjective, conditional offers and partial offers submitted
- vi. Non-compliant to any of the clauses mentioned in this RFP
- vii. With a validity period less than 120 days

4.3. Clarification on Bids

During the bid evaluation, the Authority may, at its discretion, ask the Bidder for any clarification(s) of its bid. The request for clarification and the response shall be in writing, and no change in the price or substance of the bid shall be sought, offered, or permitted.

4.4. Evaluation Process

- a. The decision of the Authority/ Tender Evaluation Committee (TEC) in the evaluation of bids shall be final. No correspondence will be entertained outside the process of evaluation with the Committee. The Tender Evaluation Committee may ask for meetings or presentation with the Eligible Bidder to seek clarifications or conformations on their bids.
- b. The Authority/ Tender Evaluation Committee (TEC) reserves the right to reject any or all bids. Each of the responses shall be evaluated as per the criteria and requirements specified in this RFP.
- c. The steps for evaluation are as follows:
 - i. Stage 1: Technical Bid Evaluation
 - ii. Stage 2: Financial Bid Evaluation

4.4.1. Stage 1: Technical Evaluation

- a. Authority/ TEC shall validate the constituents of the Technical Bid
- b. Authority/ TEC will review the technical bids of the Bidders to determine whether the Technical bids are substantially responsive as per the terms provided in this RFP. Bids that are not substantially responsive are liable to be disqualified at Authority's discretion.
- c. If the contents of the Technical Bid are as per requirements, Authority/TEC shall carry-out a technical evaluation of the bidder response to this RFP. In case, the Bidder does not meet the conditions, the bidder shall be disqualified.
- d. Financial bid shall be opened for only those Bidders, who qualify the technical evaluation

4.4.2. Stage 2: Financial bid Evaluation

- a. All the technically qualified bidders will be notified.
- b. The financial bids for the technically qualified bidders shall then be opened on the notified date and time and reviewed to determine whether the financial bids are substantially responsive. Bids that are not substantially responsive are liable to be disqualified at Authority's discretion.
- c. The bid price shall include all taxes and levies and shall be in Indian Rupees and mentioned separately.
- d. Financial Bids that are not as per the format provided in [Volume I Annexure 7.12](#) of this RFP shall be liable for rejection.

4.4.3. Financial Bid Evaluation Framework

- a. The bids received from the Technically Qualified Bidders shall be ranked in ascending order of the quote (Financial Bid)
- b. The technically qualified bidder quoting the Lowest (Lumpsum) Quote shall be deemed the "Selected Party" (L1 Bidder)
- c. For the purpose of arriving at the lowest price (L1), quotes inclusive of any applicable taxes and levies etc. will be considered.
- d. NSIL will negotiate with L2 and L3 bidders for accepting the L1 price for splitting the contract among three bidders on L1 price. The percentage of contract/work order is as per below table:

SI. No	Bidder	Percentage of Work Allotted
1	L1 Bidder	50% of the total quantity
2	L2 Bidder with L1 Price	30% of the total quantity
3	L3 Bidder with L1 Price	20% of the total quantity.

- e. NSIL reserve the right to split the order between two bidders in case only one bidder, either L2 or L3 bidder agrees to match the L1 price. In such scenario, NSIL may split the total work between L1 and the other bidder in the ratio of 60% : 40 %.
- f. NSIL reserves the right to allot 100% of work order to L1 bidder in case both L2 and L3 are not agreeing to match with L1 price.
- g. Bidders quoted above L3 will not be considered for the above negotiation.

- h. The Provisional work order/ award of contract would be confirmed as final only after the Bidder/Vendor qualify their proto Li-ion batteries for the terminals (Xponders) for mass production.
- i. The bidder shall demonstrate the aforementioned hardware's compatibility and capability by means of participating into a demonstration as per details given in Vol. 1. Annexure 7.2 as part of the Proto field trial of the battery and accessories, deliverables indicated in the Volume II, and demonstration of installation on designated motorized boats as well as the hardware functionality.
- j. Post the successful Proto Field trial of the batteries and accessories' installation and demonstration only, shall the final PO for the procurement and installation of the deliverables (as indicated in Volume II of this RFP), in the quantity indicated in Annexure 7.1 of this volume, be issued.
- k. Failure to qualify the proto Li-ion batteries within stipulated timeline may lead to cancellation of Provisional work order/ award of contract issued to the Bidder/Vendor.
- l. NSIL reserve the right to re-distribute the Percentage of Work Allotment in case of such failure to qualify the proto Li-ion batteries.
- m. Financial Proposal should not have any conditionality attached or deviations from the Price Quote format as indicated in the Bid document. Bids with conditions attached may be treated as non-responsive and liable for rejection at the discretion of the Authority.
- n. The Authority reserves the right to examine price in the Financial Bid to verify the feasibility of the programme. In case the price is substantially less or more than the market price/ Authority's purchasing price or any other malpractices are observed in the price bid, NSIL reserves the right to disqualify the Bidder

Chapter 5: Terms and Conditions

5.1. Amendment of the RFP

- a. At any time prior to the due date for submission of bid, Authority may, for any reason, whether at its own initiative or in response to a clarification requested by prospective Eligible Bidder(s), modify the RFP document by amendments. Such amendments shall be published in NSIL Website/e-tender portal in the form of corrigendum and shall form an integral part of RFP document. The relevant clauses of the RFP document shall be treated as amended accordingly.
- b. It shall be the responsibility of the prospective Eligible Bidder(s) to check from time to time for any amendment in the RFP document in NSIL's website. In case of failure to get the amendments, if any, Authority shall not be responsible.
- c. In order to allow prospective Eligible Bidders a reasonable time to take the amendment into account in preparing their bids, Authority, at its discretion, may extend the deadline for submission of bids. Such extensions shall be communicated to the Eligible Bidders via update in NSIL's website/e-tender portal in the form of corrigendum.

5.2. Right to vary quantity

- a. Considering National rollout plan, the overall quantity requirements of Li-ion batteries and associated accessories may vary up to $\pm 10\%$ compared to the quantity originally mentioned in the document at the time of award of contract. The selected Bidder/Vendor(s) shall consider such quantity variation without any change in the unit prices or other terms and conditions of the Bid and the bidding documents.
- b. If the Authority does not procure any subject matter of procurement or procures less than the quantity specified in the bidding documents due to change in any claim or compensation except otherwise provided in the bidding document.
- c. Repeat orders for extra items or additional quantities may be placed, on the rates and conditions given in the contract.

5.3. Right to Terminate the Process

Authority may terminate the RFP process at any time and without assigning any reason. Authority makes no commitments, express or implied, that this process will result in a business transaction with anyone. This RFP does not constitute an offer by the Authority.

5.4. Confidentiality

All the material/information shared with the Bidder during the course of this procurement process as well as the subsequent resulting engagement following this process with the Bidder, shall be treated as confidential and should not be disclosed in any manner to any unauthorized person under any circumstances.

5.5. Fraud and Corrupt Practices

- a. The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Selection Process. Notwithstanding anything to the contrary contained in this RFP, Authority shall reject a Bid without being liable in any manner whatsoever to the Bidder, if it determines that the Bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the "Prohibited Practices") in the Selection Process. In such an event, Authority shall, without prejudice to its any other rights or remedies, forfeit and appropriate the EMD or PBG, as the case may be, as mutually agreed genuine pre-estimated compensation and damages payable to Authority for, inter alia, time, cost and effort of Authority, in regard to the RFP, including consideration and evaluation of such Bidder's Bid.
- b. Without prejudice to the rights of Authority under Clause above and the rights and remedies which Authority may have under the contract agreement, if a Bidder is found by Authority to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Selection Process, or after the signing of the contract, such Bidder shall not be eligible to participate in any tender or RFP issued by Authority during a period of 5 years from the date such Bidder is found by Authority to have directly or through an agent, engaged or indulged in any Prohibited Practices.

- c. For the purposes of this Section, the following terms shall have the meaning hereinafter respectively assigned to them:
- i. *“corrupt practice”* means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any person connected with the Selection Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of Authority who is or has been associated in any manner, directly or indirectly with the Selection Process or the LOI or has dealt with matters concerning the Agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of Authority, shall be deemed to constitute influencing the actions of a person connected with the Selection Process); or (ii) save as provided herein, engaging in any manner whatsoever, whether during the Selection Process or after the issue of the LOA or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the Award or the Agreement, who at any time has been or is a legal, financial or technical consultant/adviser of Authority in relation to any matter concerning the Project;
 - ii. *“fraudulent practice”* means a misrepresentation or omission of facts or disclosure of incomplete facts, in order to influence the Selection Process;
 - iii. *“coercive practice”* means impairing or harming or threatening to impair or harm, directly or indirectly, any persons or property to influence any person’s participation or action in the Selection Process;
 - iv. *“undesirable practice”* means (i) establishing contact with any person connected with or employed or engaged by Authority with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or (ii) having a Conflict of Interest; and
 - v. *“restrictive practice”* means forming a cartel or arriving at any understanding or arrangement among Eligible Bidders with the objective of restricting or manipulating a full and fair competition in the Selection Process.

5.6. Conflict of Interest

- a. A Bidder shall not have a conflict of interest that may affect the Selection Process or the Solution delivery (the “Conflict of Interest”). Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification, Authority shall forfeit and appropriate the EMD, if available, as mutually agreed genuine pre-estimated compensation and damages payable to Authority for, inter alia, the time,

cost and effort of Authority including consideration of such Eligible Bidder's Bid, without prejudice to any other right or remedy that may be available to Authority hereunder or otherwise.

- b. Authority requires that the Bidder provides solutions which at all times hold Authority's interests paramount, avoid conflicts with other assignments or its own interests, and act without any consideration for future work. The Bidder shall not accept or engage in any assignment that would be in conflict with its prior or current obligations to other clients, or that may place it in a position of not being able to carry out the assignment in the best interests of Authority.

Chapter 6: Award of Contract

6.1. Notification of Award

Authority will notify the Selected Party(ies) in writing by e-mail followed by courier, to be confirmed by the Bidder's in writing by email followed by courier.

6.2. Signing of Contract/ Issuance of Provisional Purchase order

- a. After the notification of award, Authority will issue Provisional Purchase Order within fifteen (15) working days of the notification of award. The Bidder/Vendor shall accept the provisional purchase order within 5 working days and send back the countersigned provisional PO to the authority.
- b. The Provisional PO will be converted into Final Purchase order as per the conditions outlined under _____.

6.3. Performance Bank Guarantee (PBG)

- a. Within fifteen (15) working days from the date of issuance of Purchase order, the selected parties shall at his own expense submit unconditional and irrevocable Performance Bank Guarantee (PBG) to the Authority.
- b. The PBG shall be from a Nationalized Bank or a Scheduled Commercial Bank in the format prescribed in [Volume I Annexure 7.11](#) of this RFP, payable on demand, for the due performance and fulfilment of the contract by the bidder.
- c. The Bank Guarantees shall be 5% of the value of the Contract
- d. The PBG shall be invoked by Authority, in the event the Bidder:
 - i. Fails to meet the overall condition as mentioned in RFP or any changes agreed between the parties,
 - ii. Fails to perform the responsibilities and obligations as set out in the RFP to the complete satisfaction of Authority,
 - iii. Misrepresents facts/information submitted to Authority
 - iv. In the event of the Bidder being unable to service the contract for whatever reason(s), Authority shall have the right to invoke the PBG. Notwithstanding and without prejudice to any rights whatsoever of Authority under the contract in the matter, the proceeds of the PBG shall be payable to Authority as compensation for any loss resulting from the bidder's failure to perform/comply its obligations under the contract.

- v. Authority shall notify the bidder in writing of the exercise of its right to receive such compensation within 30 days, indicating the contractual obligation(s) for which the bidder is in default. Authority shall also be entitled to make recoveries from the bidder's bills, performance bank guarantee, or from any other amount due to him, an equivalent value of any payment made to him due to inadvertence, error, collusion, misconstruction or misstatement.
- vi. In case the project is delayed beyond the project schedule as agreed to by the Authority and selected party upon signing of the contract, the performance bank guarantee shall be accordingly be extended by the Bidder till completion of scope of work as mentioned in the [Volume II](#) of this RFP.
- vii. The performance bank guarantee may be discharged/returned by Authority upon being satisfied that there has been due performance of the obligations of the bidder under the contract. However, no interest shall be payable on the performance bank guarantee.
- viii. On satisfactory performance and completion of the order in all respects and duly certified to this effect by the Project Coordinator, Contract Completion Certificate shall be issued and the PBG would be returned to the Bidder.

6.4. Failure to agree with the Terms & Conditions of the RFP

- a. Failure of the selected party to agree with the Terms & Conditions of the RFP shall constitute sufficient grounds for the annulment of the award, in which event Authority may award the contract to the next best value bidder(s) at L1 price or call for new bids.
- b. In such a case, the selected party shall forfeit the EMD.

Chapter 7: Annexures

7.1. State wise allocation of Li-Ion batteries and harbor wise boats list

Sr. No	Name of Coastal State/UT's	Number of Motorized Boats State-wise
		Motorized
1.	ANDAMAN AND NICOBAR	1,561
2.	ANDHRA PRADESH	2,864
3.	DAMAN AND DIU	130
4.	GUJARAT	8600
5.	KARNATAKA	10,961
6.	KERALA	1,000
7.	LAKSHADWEEP	810
8.	MAHARASHTRA	4,047
9.	ODISHA	350
10.	PUDUCHERRY	2,465
11.	TAMIL NADU	7,373
12.	WEST BENGAL	5,091
	TOTAL	45,252

S.No	State	District	Harbour	Number of Motorized Fishing Vessels
1	Andaman and Nicobar Islands	Nicobar	Car-nicobar	18
2	Andaman and Nicobar Islands	Nicobar	Campbell Bay	75
3	Andaman and Nicobar Islands	Nicobar	Chowra	13
4	Andaman and Nicobar Islands	Nicobar	Katchal	4
5	Andaman and Nicobar Islands	Nicobar	Nancowry	52
6	Andaman and Nicobar Islands	Nicobar	Terressa	10
7	Andaman and Nicobar Islands	North and Middle Andaman	Baratang	13
8	Andaman and Nicobar Islands	North and Middle Andaman	Betapur	16
9	Andaman and Nicobar Islands	North and Middle Andaman	Durgapur	340
10	Andaman and Nicobar Islands	North and Middle Andaman	Kadamtala	14
11	Andaman and Nicobar Islands	North and Middle Andaman	Nimbutala	21
12	Andaman and Nicobar Islands	North and Middle Andaman	Pokadera	230
13	Andaman and Nicobar Islands	North and Middle Andaman	Strarit Island	2
14	Andaman and Nicobar Islands	North and Middle Andaman	Uttara	9
15	Andaman and Nicobar Islands	North and Middle Andaman	Yerrata	28
16	Andaman and Nicobar Islands	South Andaman	Guptapara	70
17	Andaman and Nicobar Islands	South Andaman	Hutbay	63
18	Andaman and Nicobar Islands	South Andaman	Junglighat	240
19	Andaman and Nicobar Islands	South Andaman	panighat	98
20	Andaman and Nicobar Islands	South Andaman	Shaheed Dweep	33
21	Andaman and Nicobar Islands	South Andaman	Swaraj Dweep	106
22	Andaman and Nicobar Islands	South Andaman	Wandoor	106
23	Andhra Pradesh	Anakapalli	Pudimadaka	150
24	Andhra Pradesh	Bapatla	Adavipallipalem	39

25	Andhra Pradesh	Bapatla	Gondi Samudram	50
26	Andhra Pradesh	Bapatla	Kataripalem	75
27	Andhra Pradesh	Bapatla	Kupanagar	27
28	Andhra Pradesh	Bapatla	Lakshmipuram (Rajukalava)	15
29	Andhra Pradesh	Bapatla	Lankevanidibba	10
30	Andhra Pradesh	Bapatla	Nakshatranagar	55
31	Andhra Pradesh	Bapatla	Nizampatnam	150
32	Andhra Pradesh	Bapatla	Pottissubbaiahpalem	53
33	Andhra Pradesh	Bapatla	Ramapuram (bapatla)	13
34	Andhra Pradesh	Bapatla	Ramapuram (Vetapalem)	73
35	Andhra Pradesh	Bapatla	Tenkaiahchetlapalem	4
36	Andhra Pradesh	Bapatla	Utukurubbaiahpalem	7
37	Andhra Pradesh	Bapatla	Vadarevu	344
38	Andhra Pradesh	Bapatla	Venkatasunnaiahpalem	3
39	Andhra Pradesh	Bapatla	Vijayalaxmipuram	10
40	Andhra Pradesh	Kakinada	Ameenabad	440
41	Andhra Pradesh	Kakinada	Kumbabishekam	425
42	Andhra Pradesh	Kakinada	Nemam	30
43	Andhra Pradesh	Kakinada	Suryarao peta	58
44	Andhra Pradesh	Kakinada	Vakalapudi	26
45	Andhra Pradesh	Kakinada	Valasapakala	20
46	Andhra Pradesh	Konaseema	Antervedipallipalem	50
47	Andhra Pradesh	Konaseema	Bhairavapalem	100
48	Andhra Pradesh	Konaseema	Vodalarevu	2
49	Andhra Pradesh	Krishna	Gilakalindi Fishing Harbour	80
50	Andhra Pradesh	Krishna	Gullamoda	15

51	Andhra Pradesh	Krishna	Sorlagondi	20
52	Andhra Pradesh	Krishna	Yetimoga	15
53	Andhra Pradesh	Prakasam	Kothapatnam	120
54	Andhra Pradesh	Srikakulam	Chinnakarivanipalem	35
55	Andhra Pradesh	Visakhapatnam	Visakhapatnam Fishing Harbour	350
56	Diman & Diu	Diu	Ghoghla-Diu	130
57	Gujarat	BHARUCH	LUVARA	1
58	Gujarat	BHAVNAGAR	BHAVNAGAR	1
59	Gujarat	BHAVNAGAR	GHOCHA	8
60	Gujarat	BHAVNAGAR	SARTANPAR	6
61	Gujarat	BHUJ -KUTCH	BHADRESWAR	136
62	Gujarat	BHUJ -KUTCH	JAKHAU	88
63	Gujarat	BHUJ -KUTCH	KUKDSAR	9
64	Gujarat	BHUJ -KUTCH	KUTDINAR	14
65	Gujarat	BHUJ -KUTCH	LUNI	79
66	Gujarat	BHUJ -KUTCH	MANDVI	91
67	Gujarat	BHUJ -KUTCH	MITHAPORT	1
68	Gujarat	BHUJ -KUTCH	MODHVA	56
69	Gujarat	BHUJ -KUTCH	MUNDRA	59
70	Gujarat	BHUJ -KUTCH	NANA LAYJA	10
71	Gujarat	BHUJ -KUTCH	NARAYAN SAROVAR	29
72	Gujarat	BHUJ -KUTCH	NAVINAR	12
73	Gujarat	BHUJ -KUTCH	NEW KANDLA	229
74	Gujarat	BHUJ -KUTCH	SANGHAD	52
75	Gujarat	BHUJ -KUTCH	SHEKHADIYA	2
76	Gujarat	BHUJ -KUTCH	TRAGDI	51

77	Gujarat	BHUJ -KUTCH	TUNAVANDI	161
78	Gujarat	BHUJ -KUTCH	ZARPARA	37
79	Gujarat	JAFRABAD	JAFRABAD	29
80	Gujarat	JAFRABAD	NAVA BANDAR	113
81	Gujarat	JAFRABAD	RAJPARA	14
82	Gujarat	JAFRABAD	SHIMAR	22
83	Gujarat	JAFRABAD	SHIYALBET	5
84	Gujarat	JAMNAGAR	BEDI	9
85	Gujarat	JAMNAGAR	JODIYA	3
86	Gujarat	JAMNAGAR	RASULNAGAR BED	3
87	Gujarat	JAMNAGAR	SACHANA	5
88	Gujarat	JAMNAGAR	SARMAT	1
89	Gujarat	JAMNAGAR	SHIKKA	10
90	Gujarat	MANGROL	BARA	427
91	Gujarat	MANGROL	CHORVAD	343
92	Gujarat	MANGROL	MANGROL	438
93	Gujarat	MANGROL	SHIL	47
94	Gujarat	MORBI	NAVLAKHI	121
95	Gujarat	NAVSARI	BHATT	1
96	Gujarat	NAVSARI	VANSI BORSHI	4
97	Gujarat	OKHA	BETBALAPUR	11
98	Gujarat	OKHA	BHARANA	3
99	Gujarat	OKHA	BHOGAT	8
100	Gujarat	OKHA	HARSHAD	159
101	Gujarat	OKHA	NANA AMBLA	7
102	Gujarat	OKHA	NAVADRA	95

103	Gujarat	OKHA	OKHA	125
104	Gujarat	OKHA	RUPEN	789
105	Gujarat	OKHA	SALAYA	68
106	Gujarat	OKHA	VADINAR	1
107	Gujarat	PORBANDAR	MADHVAD	258
108	Gujarat	PORBANDAR	MIYANI	112
109	Gujarat	PORBANDAR	NAVIBANDAR	196
110	Gujarat	PORBANDAR	PORBANDAR	1,412
111	Gujarat	SURAT	BHIMPOR	2
112	Gujarat	SURAT	DUMAS	5
113	Gujarat	SURAT	HAZIRA	5
114	Gujarat	SURAT	NANPURA	15
115	Gujarat	VALSAD	KALAI	1
116	Gujarat	VALSAD	KOSAMBA- MACHIVDI	1
117	Gujarat	VALSAD	MAGOD DUNGRI	1
118	Gujarat	VALSAD	SURWADA	2
119	Gujarat	VALSAD	UMARGAON	2
120	Gujarat	Veraval	DHAMLEJ	438
121	Gujarat	Veraval	FINGER JETTY	32
122	Gujarat	Veraval	HIRACOT	138
123	Gujarat	Veraval	JALESHWAR	282
124	Gujarat	Veraval	KOTDA	8
125	Gujarat	Veraval	MADHVAD	170
126	Gujarat	Veraval	MULDWARKA	509
127	Gujarat	Veraval	RANBARA	344
128	Gujarat	Veraval	UTRAPADA	334

129	Gujarat	Veraval	VERAVAL (FTD)	340
130	Karnataka	Dakshina Kannada	Mangalore	1,673
131	Karnataka	Uttara Kannada	Ankola	795
132	Karnataka	Uttara Kannada	Bhatkal	750
133	Karnataka	Uttara Kannada	Honnavaara	458
134	Karnataka	Uttara Kannada	Karwar	1,010
135	Karnataka	Uttara Kannada	Kumta	986
136	Karnataka	Udupi	Kundapura	2,949
137	Karnataka	Udupi	Malpe, Udupi	2,340
138	Kerala	Alappuzha	Azheekkal	75
139	Kerala	Ernakulam	Mnambam	20
140	Kerala	Ernakulam	Thoppumpady	10
141	Kerala	Ernakulam	Vypin	50
142	Kerala	Kannur	Ayikkar	50
143	Kerala	Kannur	Azheekkal	25
144	Kerala	Kannur	Thalai	25
145	Kerala	Kasarggode	Cheruvathur	25
146	Kerala	Kasarggode	Kasaba	50
147	Kerala	Kasarggode	Manjeswaram	25
148	Kerala	Kollam	Azheekkal	25
149	Kerala	Kollam	Neendakara	45
150	Kerala	Kozhikode	Beyppore	75
151	Kerala	Kozhikode	Chombal	50
152	Kerala	Kozhikode	Koyilandi	50
153	Kerala	Kozhikode	Puthiyappa	50
154	Kerala	Malappuram	Ponnai	50

155	Kerala	Malappuram	Thanur	50
156	Kerala	Thirssur	Azheekode	25
157	Kerala	Thirssur	Chettuva	25
158	Kerala	Thiruvananthapuram	Muthalappozhy	200
159	Lakshadweep	(blank)	Agatti	168
160	Lakshadweep	(blank)	Amini	67
161	Lakshadweep	(blank)	Androth	116
162	Lakshadweep	(blank)	Bitra	11
163	Lakshadweep	(blank)	Chetlath	56
164	Lakshadweep	(blank)	Kadmth	66
165	Lakshadweep	(blank)	Kalpeni	55
166	Lakshadweep	(blank)	Kavaratti	91
167	Lakshadweep	(blank)	Kiltan	103
168	Lakshadweep	(blank)	Minicoy	77
169	MAHARASHTRA	Mumbai city	Cuffe Pared	100
170	MAHARASHTRA	Mumbai city	Worli	64
171	MAHARASHTRA	MUMBAI SUBURBAN	CHIMBAI	16
172	MAHARASHTRA	MUMBAI SUBURBAN	Danda	50
173	MAHARASHTRA	MUMBAI SUBURBAN	GORAI	84
174	MAHARASHTRA	MUMBAI SUBURBAN	JUHUMORA	9
175	MAHARASHTRA	MUMBAI SUBURBAN	JUHUTARA	8
176	MAHARASHTRA	MUMBAI SUBURBAN	MADH	400
177	MAHARASHTRA	MUMBAI SUBURBAN	MAHUL	84
178	MAHARASHTRA	MUMBAI SUBURBAN	MANORI	153
179	MAHARASHTRA	MUMBAI SUBURBAN	MARVE MALVANI	46
180	MAHARASHTRA	MUMBAI SUBURBAN	PATWADI	44

181	MAHARASHTRA	MUMBAI SUBURBAN	TROMBAY	57
182	MAHARASHTRA	MUMBAI SUBURBAN	VERSOVA	55
183	MAHARASHTRA	MUMBAI SUBURBAN	YERANGAL BHATI	200
184	MAHARASHTRA	Raigad	Aadgaon	41
185	MAHARASHTRA	Raigad	Agraw	70
186	MAHARASHTRA	Raigad	Alibag	123
187	MAHARASHTRA	Raigad	Aware	2
188	MAHARASHTRA	Raigad	Bagmandla	2
189	MAHARASHTRA	Raigad	Bharadkhol Diveagar	110
190	MAHARASHTRA	Raigad	Borlimandla	66
191	MAHARASHTRA	Raigad	Dharamtar	39
192	MAHARASHTRA	Raigad	Dighi	87
193	MAHARASHTRA	Raigad	Ekadara	55
194	MAHARASHTRA	Raigad	Jivana	119
195	MAHARASHTRA	Raigad	Karanja	95
196	MAHARASHTRA	Raigad	Khamde	1
197	MAHARASHTRA	Raigad	Korlai	35
198	MAHARASHTRA	Raigad	Kudgaon	1
199	MAHARASHTRA	Raigad	Mora	36
200	MAHARASHTRA	Raigad	Morave 1	15
201	MAHARASHTRA	Raigad	Mulgaondanda	22
202	MAHARASHTRA	Raigad	Murud	60
203	MAHARASHTRA	Raigad	Nandgaon Majgaon	36
204	MAHARASHTRA	Raigad	Navapada	1
205	MAHARASHTRA	Raigad	Navgaon	64
206	MAHARASHTRA	Raigad	Nhawa	2

207	MAHARASHTRA	Raigad	Rajapuri	75
208	MAHARASHTRA	Raigad	Revdanda	11
209	MAHARASHTRA	Raigad	Rewas Gadina	51
210	MAHARASHTRA	Raigad	Sakhar Aakshi	42
211	MAHARASHTRA	Raigad	Salav	1
212	MAHARASHTRA	Raigad	Sasawane	21
213	MAHARASHTRA	Raigad	Thal	49
214	MAHARASHTRA	Raigad	Theronda	33
215	MAHARASHTRA	Raigad	Ulwa Moha	26
216	MAHARASHTRA	Raigad	Varsoli Chalmala	74
217	MAHARASHTRA	Raigad	VASHI HAVELI	1
218	MAHARASHTRA	RATNAGIRI	ADE-UTTAMBAR	32
219	MAHARASHTRA	RATNAGIRI	AMBOLGAd	2
220	MAHARASHTRA	RATNAGIRI	ANJANVEL	2
221	MAHARASHTRA	RATNAGIRI	ASGOLI	3
222	MAHARASHTRA	RATNAGIRI	BHAGWATIBANDAR	11
223	MAHARASHTRA	RATNAGIRI	BHATYE	5
224	MAHARASHTRA	RATNAGIRI	BORYA	2
225	MAHARASHTRA	RATNAGIRI	BUDHAL	15
226	MAHARASHTRA	RATNAGIRI	BURONDI	15
227	MAHARASHTRA	RATNAGIRI	DABHOL	6
228	MAHARASHTRA	RATNAGIRI	GAVADE AMBERE	1
229	MAHARASHTRA	RATNAGIRI	GOLAP-PAWAS	13
230	MAHARASHTRA	RATNAGIRI	HARNAI	69
231	MAHARASHTRA	RATNAGIRI	JAIGAD	8
232	MAHARASHTRA	RATNAGIRI	JAKIMIRYA	6

233	MAHARASHTRA	RATNAGIRI	JAMBHARI	13
234	MAHARASHTRA	RATNAGIRI	KALBADEVI	3
235	MAHARASHTRA	RATNAGIRI	KARLA	7
236	MAHARASHTRA	RATNAGIRI	KELSHI	1
237	MAHARASHTRA	RATNAGIRI	KONDKARUL	21
238	MAHARASHTRA	RATNAGIRI	KUDALI	11
239	MAHARASHTRA	RATNAGIRI	MHAMURWADI	1
240	MAHARASHTRA	RATNAGIRI	MIRKARWADA	16
241	MAHARASHTRA	RATNAGIRI	ONI BHATI	1
242	MAHARASHTRA	RATNAGIRI	PADVE	24
243	MAHARASHTRA	RATNAGIRI	PAJ	2
244	MAHARASHTRA	RATNAGIRI	PALSHET	2
245	MAHARASHTRA	RATNAGIRI	PURNGAD	13
246	MAHARASHTRA	RATNAGIRI	RAJIWADA	19
247	MAHARASHTRA	RATNAGIRI	SAKHAR HEDVI	2
248	MAHARASHTRA	RATNAGIRI	SAKHARINATE	50
249	MAHARASHTRA	RATNAGIRI	SAKHARTAR KASARVELI	1
250	MAHARASHTRA	RATNAGIRI	VADAP	41
251	MAHARASHTRA	RATNAGIRI	VARVADE	49
252	MAHARASHTRA	RATNAGIRI	VELDUR/NAVANAGA R/DHOPAVE	6
253	MAHARASHTRA	RATNAGIRI	VELNESHWAR	4
254	MAHARASHTRA	RATNAGIRI	VESHVI	13
255	MAHARASHTRA	Sindhudurg	Aanandwadi and Devgad Fort	139
256	MAHARASHTRA	Sindhudurg	Aaravali Tank	4
257	MAHARASHTRA	Sindhudurg	achara	22
258	MAHARASHTRA	Sindhudurg	Daboswadi Navabag	42

259	MAHARASHTRA	Sindhudurg	DANDI	42
260	MAHARASHTRA	Sindhudurg	Devbag	6
261	MAHARASHTRA	Sindhudurg	Dhurivada	30
262	MAHARASHTRA	Sindhudurg	Husenbag Pirwadi	1
263	MAHARASHTRA	Sindhudurg	Kelus	4
264	MAHARASHTRA	Sindhudurg	Khanoli Wayangani	5
265	MAHARASHTRA	Sindhudurg	Khavane	5
266	MAHARASHTRA	Sindhudurg	Kochara nivati	36
267	MAHARASHTRA	Sindhudurg	Kunkeshwar Katwan	7
268	MAHARASHTRA	Sindhudurg	Makarebag	17
269	MAHARASHTRA	Sindhudurg	Manasiwada	1
270	MAHARASHTRA	Sindhudurg	Medha	51
271	MAHARASHTRA	Sindhudurg	Mithbav	23
272	MAHARASHTRA	Sindhudurg	Mithmumbari / Taramumbari	29
273	MAHARASHTRA	Sindhudurg	Morvewadi	21
274	MAHARASHTRA	Sindhudurg	Redi	10
275	MAHARASHTRA	Sindhudurg	Sarjekot miryaband	90
276	MAHARASHTRA	Sindhudurg	Shipetu	1
277	MAHARASHTRA	Sindhudurg	Talashil	26
278	MAHARASHTRA	Sindhudurg	Tarkarli kalethar	10
279	MAHARASHTRA	Sindhudurg	Tondwali	5
280	MAHARASHTRA	Sindhudurg	Vijaydurg	41
281	MAHARASHTRA	Sindhudurg	Wadatar / Malai	18
282	MAHARASHTRA	Sindhudurg	Wayari	35
283	Odisha	Balasore	Bahabalpur	25
284	Odisha	Balasore	Chandipur	10

285	Odisha	Balasore	Chaumuk	1
286	Odisha	Balasore	Gadeisagar	2
287	Odisha	Balasore	Hanskura	8
288	Odisha	Balasore	Jamuca	1
289	Odisha	Balasore	Kankadapal	1
290	Odisha	Balasore	Kirtania	12
291	Odisha	Balasore	Panchubisa	2
292	Odisha	Balasore	Ranasingpur	2
293	Odisha	Balasore	Talsari	7
294	Odisha	Bhadrak	Chandinipal	10
295	Odisha	Bhadrak	Chudamani	5
296	Odisha	Bhadrak	Dhamara	15
297	Odisha	Bhadrak	Kasia	5
298	Odisha	Jagatishpur	Atharbanki	4
299	Odisha	Kendrapara	Barunel	25
300	Odisha	Kendrapara	Gopalpur	17
301	Odisha	Kendrapara	Jamboos	35
302	Odisha	Kendrapara	Kajalpatia	9
303	Odisha	Kendrapara	Kandarapatia	2
304	Odisha	Kendrapara	Kharinasi	147
305	Odisha	Kendrapara	Talchua	5
306	Puducherry	Karaikal	Akkampettai	23
307	Puducherry	Karaikal	Kalikuppam	47
308	Puducherry	Karaikal	Karaikal Fishing Harbour	12
309	Puducherry	Karaikal	Karaikalmedu	178
310	Puducherry	Karaikal	Karukalacherry	2

311	Puducherry	Karaikal	Keezhakasakudimedu	55
312	Puducherry	Karaikal	Kilinjalmadu	61
313	Puducherry	Karaikal	Kottucherryadu	17
314	Puducherry	Karaikal	Mandapathur	47
315	Puducherry	Karaikal	North Vanjour	13
316	Puducherry	Karaikal	Pattinacherry	201
317	Puducherry	Mahe	Mahe	92
318	Puducherry	pondicherry	Chinnakalpet	55
319	Puducherry	pondicherry	Kanagachettikulam	22
320	Puducherry	pondicherry	Kurusukuppam	27
321	Puducherry	pondicherry	Moorthikuppam	149
322	Puducherry	pondicherry	Nallavadu	195
323	Puducherry	pondicherry	Narambai	87
324	Puducherry	pondicherry	Pannithittu	158
325	Puducherry	pondicherry	Periakalpet	148
326	Puducherry	pondicherry	Periaveerampattinam	173
327	Puducherry	pondicherry	Pillaichavady	100
328	Puducherry	pondicherry	Pudukuppam	30
329	Puducherry	pondicherry	Solai nagar	119
330	Puducherry	pondicherry	Vaithikuppam	125
331	Puducherry	pondicherry	Vambakeerapalayam	87
332	Puducherry	Yanam	Darialatippa	1
333	Puducherry	Yanam	Guriempetta	22
334	Puducherry	Yanam	Iyanna Nagar	23
335	Puducherry	Yanam	Kanakalpet	2
336	Puducherry	Yanam	Mettacuru	3

337	Puducherry	Yanam	Rajeev Nagar	39
338	Puducherry	Yanam	Rareev Nagar Ferry Point	23
339	Puducherry	Yanam	Savithri Nagar	129
340	Tamil Nadu	Chengalpattu	Chengalpattu	350
341	Tamil Nadu	Chennai	Chennai	500
342	Tamil Nadu	Cuddalore	Cuddalore	600
343	Tamil Nadu	Kanniyakumari	Kanniyakumari	300
344	Tamil Nadu	Mandapam	Mandapam	100
345	Tamil Nadu	Mayiladuthurai	Mayiladuthurai	600
346	Tamil Nadu	Nagapattinam	Nagapattinam	600
347	Tamil Nadu	Pudukottai	Pudukottai	250
348	Tamil Nadu	Ramanathapuram	Ramanathapuram South	200
349	Tamil Nadu	Ramanathapuram	Ramanathapuram North	350
350	Tamil Nadu	Rameswaram	Rameswaram	200
351	Tamil Nadu	Thanjavur	Thanjavur	250
352	Tamil Nadu	Thengaipattinam	Thengaipattinam	1,573
353	Tamil Nadu	Thiruvarur	Thiruvarur	50
354	Tamil Nadu	Thoothukudi	Thoothukudi	700
355	Tamil Nadu	Tirunelveli	Tirunelveli	250
356	Tamil Nadu	Tiruvallur	Tiruvallur	300
357	Tamil Nadu	Villupuram	Villupuram	200
358	West bengal		Purba medinipur	3,799
359	West bengal		South 24 Pargannas	1,292
			Grand Total	45,252

7.2. Proto Field Trial Demonstration

As part of the mandatory Proto field trial demonstrations, participating Bidder/Vendor has to demonstrate the following:

- a. The compatibility of the Li-ion battery with the MSS Terminal (Xponder) on-site (location to be conveyed later) and deployment on the provided marine fishing vessel (motorized boat) complete with the battery case mounting and interface cables.
- b. Bidder/Vendor must also demonstrate the battery charging accessory complete with adaptor and charging cable and its compatibility with the Li-ion battery
- c. The quantity of the proto units shall be as indicated in [Annexure 7.1](#) of this Volume
- d. The Bidder/Vendor shall be intimated the date and location(s) of Proto field trial in advance as per the milestones indicated in the Volume II. The fishing vessels (motorized boats) at the communicated sites shall be made available by the user agency.
- e. All expenses towards travel and stay shall be borne by the Bidder/Vendor.

7.3. Technical Bid Checklist

Sr. No.	Requirement	Documentary Evidence	Compliance (Yes/No)
1.	Payment of Bid document cost	The Bidder shall submit Demand Draft as indicated in Volume I Section 3.14 of this RFP	
2.	Payment of Earnest Money Deposit (EMD)	The Bidder shall submit Bank Guarantee of requisite amount as indicated in Volume I Section 3.17 of this RFP	
3.	Bid Response Covering Letter	The Bidder shall submit A covering letter to the bid as per the format indicated in Bid Response cover letter Volume I Annexure 7.4 of this RFP	
4.	Signed and Stamped Copy of the Bid Documents	The Bidder shall submit Bid Document which is duly signed and stamped by the Authorized Signatory in accordance with the Power of Attorney as per format mentioned in Volume I Annexure 7.5 of this RFP Bid document shall include para-wise compliance to the RFP requirements	
5.	Bid checklist	The Bidder shall submit Checklist of bid documents as per this format	
6.	Bidder Profile	The Bidder shall submit A brief profile of the organization as per the format indicated in Volume I Annexure 7.6 of this RFP	

Sr. No.	Requirement	Documentary Evidence	Compliance (Yes/No)
7.	<p>Power of Attorney for Signing the Bid</p>	<p>The Bidder shall submit A power of attorney to representative of the Bidder naming the individual as an Authorised Signatory as per the format indicated in Volume I Annexure 7.5 of this RFP</p>	
8.	<p>Legal Status of the Bidder The Bidder shall be registered in India under Companies Act, 1956 or as amended. The Bidder shall be in continuous operation in India for a period of at least 5 years as on the date of the issue of RFP</p>	<p>The Bidder shall submit</p> <ul style="list-style-type: none"> • Copy of Incorporation/ Registration certificate • Copy of PAN card Copy of GST registration 	

Sr. No.	Requirement	Documentary Evidence	Compliance (Yes/No)
9.	<p>Status of Ownership and Control of the Bidder</p> <p>The Eligible Bidder shall be legal entities owned by Resident Indian citizens with at least majority of the Board of Directors being Resident Indian citizens</p> <p>The entity/entities bidding as the lead bidder may be a One Person Company (OPC), Private or Public Company, Listed or Unlisted</p> <p>Company registered in India, who is a legal entity as above</p> <p>A Company would be deemed to be owned by Indian Citizens, if more than fifty (50) percent of equity shares of the Company are owned by Resident Indian Citizens or Companies and/or LLPs registered in India that are, in turn, ultimately owned and controlled by Resident Indian Citizens</p>	<p>The Bidder shall submit</p> <p>Regulatory filings indicating the share-holding pattern for the past three years for listed companies or shareholding document filled with Ministry of Corporate Affairs in case of non-listed companies.</p>	

Sr. No.	Requirement	Documentary Evidence	Compliance (Yes/No)
10.	<p>Financial stability An undertaking (self-attested) shall be submitted, stating that there has been or is no outstanding bankruptcy, judgment or pending legal action that could impair operations as a going concern.</p>	<p>The Bidder shall submit Certificate signed by the authorized signatory</p>	
11.	<p>Track Record The Bidder should not have:</p> <ul style="list-style-type: none"> • either failed to perform on any agreement with either private or government organization, • been black listed, or been expelled from any project or agreement or have any agreement terminated for breach of agreement by the Bidder 	<p>The Bidder shall submit Legal Attorney certified letter of undertaking to this effect on the letter head of the company, co-signed by the Bidder's authorized signatory.</p>	
12.	<p>Prior experience The Bidder shall have minimum 2 years of Experience during last 5 years in execution of the contracts for the supply of the rechargeable Li-ion batteries or electronics system with inbuilt rechargeable Li-ion batteries in marine environment, of project value min. INR 10 Cr.</p>	<p>The Bidder shall submit</p> <ol style="list-style-type: none"> 1. Work order(s) / Contract(s) clearly highlighting the scope of work, Bill of Material and value of the contract/order as per the format mentioned in Volume I Annexure 7.7 A 2. Work completion certificates to be arranged chronologically 3. OEM Authorization certificate(s) 	

Sr. No.	Requirement	Documentary Evidence	Compliance (Yes/No)
13.	<p>Turnover</p> <p>The Average Annual Financial Turnover of the bidder during last three financial years (i.e. FY 2021-22, 2022-23 & 2023-24) should be equal to or more than INR 25 Cr. Further, the Net Worth of the Bidder should be positive in the Financial Year 2023-24.</p>	<p>The Bidder shall submit</p> <p>Annual Audited Financial Report(s) OR Profit & Loss Account Statement(s) OR Turnover Certificate and / or Net worth Certificate from Chartered Accountant.</p> <p><u>Note:</u> In case Audited Financial Reports of immediate three preceding financial years are not available, the bidder has an option to submit the audited financial results of the 3 years immediately prior to that</p>	
14.	<p>Non-Deviation Certificate</p>	<p>The Bidder shall submit</p> <p>Self-certificate signed by Authorized Signatory as per format provided in Volume I Annexure 7.9 of this RFP</p>	
15.	<p>Non-Blacklisting Certificate</p> <p>The Bidder should not have been blacklisted by any Aerospace and defence manufacturing PSU or government organization in a related field as on bid submission date</p>	<p>The Bidder shall submit</p> <p>Legal Attorney certified letter of undertaking to this effect on the letter head, co-signed by Eligible Bidder' authorized signatory as per format provided in Volume I Annexure 7.10 of this RFP</p>	
16.	<p>Integrity Pact</p>	<p>The Bidder shall submit</p> <p>Self-certificate signed by Authorized Signatory as per format provided in Volume I Annexure 7.15 of this RFP</p>	

Sr. No.	Requirement	Documentary Evidence	Compliance (Yes/No)
17.	<p>Presentation on Implementation plan</p>	<p>The Bidder shall submit A presentation explaining bidder's end-to-end implementation plan including mass production of Li-ion batteries, schedule for installation and commissioning across 9 coastal states and 4 UTs, and provision of the necessary accessories along with the batteries as indicated in the deliverables in Volume II, to complete the scope of work if awarded with PO/ work order</p>	
18.	<p>Price Masked Financial Bid The Bidder shall submit Price Masked financial bid as part of Technical Bid</p>	<p>The Bidder shall submit Bidder shall submit financial bid with Price Masked as part of Technical Bid</p>	

7.4. Bid Response cover letter

(On the Bidder's letterhead)

To,

Deputy Manager (Commercial)
NewSpace India Limited (NSIL)
ISRO HQ Campus
New BEL Road
Bengaluru-560 094
Ph: 080-2217 2049
E-mail: Sathish.babu@nsilindia.co.in

Dear Sir,

Ref: Submission of Bid in respect of the Request for Proposal for “___”

Having examined the Request for Proposal (RFP) document dated _____,
sent to us by NewSpace India Limited, we attach hereto the response to the RFP
as required by you, which constitutes our bid for the RFP.

We confirm that the information contained in this response or any part thereof,
including its exhibits, and other documents and instruments delivered or to be
delivered to NSIL are true, accurate, verifiable and complete. This response
includes all information necessary to ensure that the statements therein do not in
whole or in part mislead NSIL in its short-listing process.

We fully understand and agree to comply that on verification, if any of the
information provided here is found to be misleading the short-listing process, we
are liable to be dismissed from the selection process or termination of the contract
after the execution of the contract.

We agree to the unconditional acceptance of all the terms and conditions set out
in the RFP document.

Any queries or clarifications with respect to our bid may be sent to the following
Primary and Secondary contacts for our company:



	Primary Contact	Secondary Contact
Name:		
Title:		
Company Name:		
Address:		
Phone:		
Mobile:		
Fax:		
E – mail:		

It is hereby confirmed that I am entitled to act on behalf of our company/ corporation/ firm / organization and empowered to sign this document as well as such other documents, which may be required in this connection.

Dated this

(Signature)

(In the capacity of)

(Name)

Duly authorized to sign the RFP Response for and on behalf of

(Name and Address of Company) Seal / Stamp of Eligible Bidder

Witness Signature:

Witness Name:

Address:

7.5. Power of Attorney to Authorise Signatory

POWER OF ATTORNEY

[To be executed on non-judicial stamp paper of the appropriate value in accordance with relevant Stamp Act. The stamp paper to be in the name of the company who is issuing the power of attorney.]

We, M/s. _____ (name of the firm or company with address of the registered office) hereby constitute, appoint and authorise Mr. or Ms. _____ (Name and residential address) who is presently employed with us and holding the position of _____, as our Attorney to do in our name and our behalf all or any of the acts, deeds or things necessary or incidental to our RFP for the Project ____ (name of the Project), including signing and submission of the RFP response, participating in the meetings, responding to queries, submission of information or documents and generally to represent us in all the dealings with Client or any other Government Agency or any person, in connection with the works until culmination of the process of bidding till the Project Agreement is entered into with _____ (Client) and thereafter till the expiry of the Project Agreement.

We hereby agree to ratify all acts, deeds and things lawfully done by our said Attorney pursuant to this power of attorney and that all acts, deeds and things done by our aforesaid Attorney shall and shall always be deemed to have been done by us.

Dated this the _____ day of _____ 20

(Signature and Name of authorized signatory)

Seal of firm Company

Witness 1:

Witness 2:

Notes:

- The Mode of execution of the power of attorney should be in accordance with the procedure, if any laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.

7.6. Bidder Profile

A. Brief company profile of the Bidder

1.	Name(s) of the Eligible Bidder	
2.	Year of Establishment	
3.	Legal status of Eligible Bidder (company, Pvt. Ltd., LLP etc.)	
4.	Main business of the Eligible Bidder	
5.	Core capabilities of the Eligible Bidder	Brief, not more than 2 pages
6.	Registered office address with contact number and email id	
7.	Corporate website URL	
8.	Addresses of manufacturing and/or operational setup in India (Highlight the address where NSIL representative will visit for audit)	1. 2. 3.
9.	GST number	
10.	PAN number	

B. Brief Financial information of the Bidders

Particulars	2023– 24	2022 – 23	2021 – 22
Annual Turnover (INR Crores)			
Net Worth (INR Crores)			
Net Revenue from Operations (in INR Crores)			
EBTD [Earnings Before Tax and Depreciation]			
Share Capital			

Particulars	2023– 24	2022 – 23	2021 – 22
% of shareholding by Indian			
% of shareholding by Foreign			

C. Summary of Shareholding Pattern of the Bidder

Sl. No	Category of Shareholder	No. of shareholders	% of shareholding
	Total		100%

7.7. Relevant Experience of the Bidder

A. Summary of projects/ activities undertaken by the bidder in the area of Li-ion battery supply and commissioning

SI #	Project/ Activity Name	Client Name and Type	Project Value (in INR)	Project Components	Documentary evidence provided (Yes or No)	Project Status (Completed or Ongoing or Withheld)
1						
2						
3						

- *Client type – Indicate whether the client is Government or PSU or Private*
- *Documentary evidence provided – Indicate the documentary evidence provided with the detailed project credential like work order or purchase order or completion certificate or letter of appointment*
- *Project Status – Completed (date of project completion) or Ongoing (project start date)*
- More Rows may be added as necessary
- Work order(s) / Contract(s) related to Li-ion batteries clearly highlighting the scope of work, Bill of Material and value of the contract/order
- Self-certificate signed by authorised signatory for this bid highlighting the Technology/ necessary expertise available with the bidder for supply and installation of Li-ion batteries in marine environment
- If the project is ongoing, Bidder must clearly specify which of the stages/phases/milestones are completed and which are ongoing and at what stage of completion and produce a self-certificate in a suitable format

7.8. Total Responsibility Certificate

(To be provided on the Company letter head)

I certify that we have understood the complete scope of work required to ensure the final deliveries as per the scope of work in RFP.

I also certify that we undertake the total responsibility for the defect free solution for the entire scope of work as per the requirement of the RFP within the duration mentioned in the RFP.

(Authorised Signatory)

Signature:

Name:

Designation:

Address:

Seal:

Date:

7.9. No Deviation Certificate

(To be provided on the Company letter head)

No Deviation Certificate

This is to certify that our offer is exactly in line with your tender enquiry/RFP (including amendments) no. _____ dated _____. This is to expressly certify that our offer contains no deviation either Technical (including but not limited to Scope of Work, Business Requirements Specification, Functional Requirements Specification, Hardware Specification and Technical Requirements Specification) or Commercial in either direct or indirect form.

(Signature of Authorized signatory of the Eligible Bidder)

Signature:

Name:

Designation:

Address:

Seal:

Date:

7.10. Declaration of Non-Blacklisting

(To be provided on the Company letter head)

Non-Blacklisting Certificate

We confirm that our company or firm, _____, is currently not blacklisted in any manner whatsoever by any of the State or UT and or Central Government in India on any ground including but not limited to indulgence in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.

(Signature of Authorized signatory of the Eligible Bidder)

Printed Name

Designation

Seal

Date:

Place:

Business Address:

7.11. Performance Bank Guarantee

Ref: _____

Date

Bank Guarantee No. _____

<Name>
<Designation>
<Address>
<Phone Nos.>
<Fax Nos.>
<Email id>

Whereas, <<name of the supplier and address>> (hereinafter called “bidder”) has undertaken, in pursuance of contract no. <Insert Contract No.> dated. <Date> for <<name of the assignment>> to NewSpace India Limited (hereinafter called “the Authority”)

And whereas it has been stipulated by in the said contract that the bidder shall furnish you with a bank guarantee by a recognized bank for the sum specified therein as security for compliance with its obligations in accordance with the contract;

And whereas we, <Name of Bank> a banking company incorporated and having its head/registered office at <Address of Registered Office> and having one of its office at <Address of Local Office> have agreed to give the supplier such a bank guarantee.

Now, therefore, we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of Rs.<Insert Value> (Rupees <Insert Value in Words> only) and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of Rs. <Insert Value> (Rupees <Insert Value in Words> only) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the bidder before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and any other supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This Guarantee shall be valid until <<Insert Date>>)

Notwithstanding anything contained herein:

I. Our liability under this bank guarantee shall not exceed Rs. <Insert Value> (Rupees <Insert Value in Words> only).

II. This bank guarantee shall be valid up to <Insert Expiry Date>

III. It is condition of our liability for payment of the guaranteed amount or any part thereof arising under this bank guarantee that we receive a valid written claim or demand for payment under this bank guarantee on or before <Insert Expiry Date>) failing which our liability under the guarantee will automatically cease.

Date _____

Place _____

Signature _____

Witness _____

Printed name _____

(Bank's common seal)

7.12. Format for Financial Bid

SN	Item Description	Qty.	Unit Price (INR)	Total Price (INR)	Tax	Total Price (INR)
1.	<p>Supply, installation and commissioning of rechargeable Li-ion battery units with mountable case and mechanical interface structure for their installation on the pole/mast/structure of the motorized boats and required accessories viz. the connecting cables/interface, battery charger compatible with 5A household socket and its cable, at the designated locations as per Annexure 7.1</p> <p>With 5 years on site comprehensive Warranty (2 Years Std. on site warranty and 3 years extended Comprehensive on site warranty post completion of 2 years Std. Warranty) for the rechargeable Li-ion batteries with mountable case and accessories like connecting cables/interface, battery charger etc.</p>	45,252				
	Total Price (INR) (Inclusive of Tax)					

7.13. Template for Pre-Bid Queries

Bidder shall submit all pre-bid queries in excel in the following format. Queries with respect to clauses of RFP for selection of Agency

Sr. No.	RFP Volume and Section	RFP page no	Content in the RFP	Proposed content	Clarification for requested change
1					
2					
3					

7.14. Integrity Pact

(To be provided on the Company letter head)

Pre Contract Integrity Pact (or as revised by Authority)

This Pact made this day of between NewSpace India Limited, a body corporate constituted by the Central Government and having its Corporate Office at -----, hereinafter called the Authority (which term shall unless excluded by or is repugnant to the context, be deemed to include its Chairman cum Managing Director, or Executive Director, Directors, officers, or any of them specified by the Chairman cum Managing Director in this behalf, and shall also include its successors and assigns) of the one part

AND

Represented by of the other part, hereinafter called the “Bidder/Contractor” (which term shall unless excluded by or is repugnant to the context be deemed to include its heirs, representatives, successors and assigns of the Bidder/ Contractor)

WHEREAS the Authority intends to award, under laid down organizational procedures, tender/ contract for The Authority, while discharging its functions on business principles, values proper compliance with all relevant laws and regulations, and the principles of natural justice, ethics, equity, fairness and transparency in its relations with the Bidders/ Contractors.

WHEREAS the Authority is desirous to make its business mechanism more transparent, thus to ensure strict adherence of the aforesaid objectives/goals, the Authority hereby adopts the instrument developed by the renowned international non-governmental organization “Transparency International” (T I) headquartered in Berlin (Germany). The Authority will appoint an Independent External Monitor (IEM) who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

AND WHEREAS the Bidder is submitting a tender to the Authority for In response to the NIT (Notice Inviting Tender) dated Contractor is signing the contract for execution of

NOW, therefore,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to

Enabling the Authority to obtain the desired said stores/equipment/execution of works at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and

Enabling Authority to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the Authority will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:

1. Commitments of the Authority;

- 1.1 The Authority undertakes that no official of the Authority, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.
- 1.2 The Authority will, during the pre-contact stage, treat all BIDDERS alike, and will provide to all BIDDERS the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERS.
- 1.3 All the officials of the Authority will report to the appropriate authority office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.

In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the Authority with full and verifiable facts and the same is prima facie found to be correct by the Authority, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the Authority and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the Authority the proceedings under the contract would not be stalled.

2. Commitments of Bidders/Contractor.

- 2.1 The Bidder/ Contractor commits itself to take all measures necessary to

prevent corrupt practice, unfair means and illegal activities during any stage of its bid or during any pre-contract or post- contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following: -

The Bidder/Contractor will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Authority, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.

- 2.2 (i) The Bidder/Contractor further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Authority or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the Authority for showing or forbearing to show favour or disfavour to any person in relation to the contract or any other contract with the Authority.
- (ii) The Bidder / Contactor has not entered and will not enter with other bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specification, certifications, subsidiary contracts, submission or non-submission of bids or any actions to restrict competitiveness or to introduce cartelization in the bidding process.
- 2.3 The Bidder/Contractor shall, when presenting his bid, disclose the name and address of agents and representatives and Indian BIDDERS shall disclose their foreign principals or associates.
- 2.4 The Bidder/ Contactor shall when presenting his bid disclose any and all the payments he has made or, is committed to or intends to make to agents/brokers or any other intermediary, in connection with this bid/contract.
- 2.5 The Bidder/ Contractor further confirms and declares to the Authority that the BIDDER is the original manufacturer/integrator/ authorized government sponsored export entity of the stores and has not engaged any individual or

firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the Authority or any of its functionaries, whether officially or unofficially to the award of the contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.

- 2.6 The Bidder/Contractor, either while presenting the bid or during pre- contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of the Authority or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.
- 2.7 The Bidder/Contractor will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.
- 2.8 The Bidder/ Contractor will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- 2.9 The Bidder / Contactor shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the Authority as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The Bidder / Contractor also undertakes to exercise due and adequate care lest any such information is divulged.
- 2.10 The Bidder/ Contractor will inform to the Independent External Monitor.
 - i. If he receives demand for an illegal/ undue payment/benefit.
 - ii. If he comes to know of any unethical or illegal payment/ benefit.
 - iii. If he makes any payment to any Authority's associate(s)
- 2.11 The Bidder/ Contactor commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
- 2.12 The Bidder/ Contactor shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.
- 2.13 If the Bidder/ Contractor or any employee of the Bidder/ Contractor or any person acting on behalf of the Bidder/ Contractor, either directly or indirectly, is a relative of any of the officers of the Authority, or alternatively, if any relative of an officer of the Authority has financial interest/ stake in the

Bidder's/ Contractor's firm, the same shall be disclosed by the Bidder/ Contractor at the time filing of tender. The term 'relative' for this purpose would be as defined in Section 6 of the Companies Act 1956.

- 2.14 The Bidder/ Contractor shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the Authority.
- 2.15 That if the Bidder/ Contractor, during tender process or before the award of the contract or during execution of the contract/ work has committed a transgression in violation of section 2 or in any other form such as to put his reliability or credibility as Bidder/ Contractor into question, the Authority is entitled to disqualify him from the tender process or to terminate the contract for such reason and to debar the BIDDER from participating in future bidding processes.

3. Previous Transgression

- 3.1 The Bidder/Contractor declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify Bidders' exclusion from the tender process.
- 3.2 The Bidder/Contractor agrees that if it makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason and he may be considered for debarment for future tender/contract processes.
- 3.3 That the Bidder/Contractor undertakes to get this Pact signed by the subcontractor(s) and associate(s) whose value of the work contribution exceeds Rs 5 Cr (Rupees Five Crores) and to submit the same to the Authority along-with the tender document/ contract before contract signing.
- 3.4 That sub-contractor(s)/ associate(s) engaged by the Contractor, with the approval of the Authority after signing of the contract, and whose value of the work contribution exceeds Rs 5 Cr (Rupees Five Crores) will be required to sign this Pact by the Contractor, and the same will be submitted to the Authority before doing/ performing any act/ function by such sub-contractor(s)/ associate(s) in relation to the contract/ work.

That the Authority will disqualify from the tender process all Bidder(s) who do not sign this Pact or violate its provisions or fails to get this Pact signed in

terms of section 4.3 or 4.4 above.

- 3.5 That if the Contractor(s) does/ do not sign this Pact or violate its provisions or fails to get this Pact signed in terms of Section 4.3 or 4.4 above. Authority will terminate the contract and initiate appropriate action against such Contractor(s).

4. Earnest Money Deposit and its validity i/c Warranty Period, Performance Bank Guarantee/ Bond.

While submitting bid, the BIDDER shall deposit an EMD I/C WARRANTY PERIOD, PBG, VALIDITY ETC, which is as per terms and conditions and details given in RFP sold to the Bidders.

5. Sanctions for Violations/ Disqualification from tender process and exclusion from future Contracts.

- 5.1 Any breach of the aforesaid provisions by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the Authority to take all or any one of the following actions, wherever required:
- i. To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.
 - ii. To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.
 - iii. If the Authority has disqualified/ debarred the Bidder from the tender process prior to the award under section 2 or 3 or 4, the Authority is entitled to forfeit the Earnest Money Deposited.
 - iv. To recover all sums already paid by the Authority, with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India. If any outstanding payment is due to the BIDDER from the Authority in connection with any other contract or any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.
 - v. To encash the Performance Bank Guarantee, if furnished by the BIDDER, in order to recover the payments, already made by the Authority, along with interest.

- vi. To cancel all or any other Contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the Authority resulting from such cancellation/rescission and the Authority shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.
- vii. To debar the BIDDER from participating in future bidding processes for a minimum period of three years, which may be further extended at the discretion of the Authority.
- viii. To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.
- ix. In case where irrevocable Letters of Credit have been received in respect of any contract signed by the Authority with the BIDDER, the same shall not be opened.
- x. Forfeiture of Performance Bank Guarantee in case of a decision by the Authority to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.
- xi. That if the Authority has terminated the contract under section 2 or 3 or 4 or if the Authority is entitled to terminate the contract under section 2 or 3 or 4, the Authority shall be entitled to demand and recover from the contractor damages equivalent to 5% of the contract value or the amount, equivalent to Earnest Money Deposited or Performance Bank Guarantee, whichever is higher.
- xii. That the Bidder / Contractor agrees and undertakes to pay the said amount without protest or demur subject only to condition that if the Bidder/ Contractor can prove and establish to the satisfaction of the Authority that the disqualification / debarment of the bidder from the tender process or the termination of the contract after award of the contract has caused no damage to the Authority.

5.2 The Authority will be entitled to take all or any of the actions mentioned at para 6.1 (i) to (xii) of this Pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined in Chapter IX of the Indian Penal code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.

- 5.3 That if the Bidder/ Contractor applies to the Authority for premature revocation of the debarment and proves to the satisfaction of the Authority that he has installed a suitable and effective corruption prevention system and also restored/ recouped the damage, if any, caused by him, the Authority may, if thinks lit, revoke the debarment prematurely considering the facts and circumstances of the case, and the documents/ evidence adduced by the Bidder/ Contractor for first time default.
- 5.4 That a transgression is considered to have occurred if the Authority is fully satisfied with the available documents and evidence submitted along with Independent External Monitor's recommendations/ suggestions that no reasonable doubt is possible in the matter.
- 5.5 The decision of the Authority to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the Independent External Monitor(s) appointed for the purpose of this Pact.

6. Allegations against Bidders/ Contractors/ Sub-Contractors/ Associates:

That if the Authority receives any information of conduct of a Bidder/ Contractor or Sub- Contractor or of an employee or a representative or an Associates of a Bidder, Contractor or Sub-Contractor which constitute corruption, or if the Authority has substantive suspicion in this regard, the Authority will inform the Vigilance Department for appropriate action.

7. Facilitation of Investigation.

In case of any allegation of violation of any provisions of this Pact or payment of commission, the Authority or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such Examination.

8. Law and Place of Jurisdiction.

That this Pact is subject to Indian Law. The place of performance jurisdiction is the Corporate Headquarter of the Authority, as applicable.

9. Other Legal Actions

- a. That the changes and supplements as well as termination notices need to be made in writing.

10.Pact duration (Validity)

- a. 13.1 That this Pact comes into force when both the parties have signed it. It expires for the Contractor 12 months after the final payment under the respective contract, and for all other Bidders 3 months after the contract is awarded.
- b. 13.2 That if any claim is made/ lodged during this period, the same shall be binding and continue to be valid despite the lapse of this Pact as specified herein before, unless it is discharged/ determined by Chairman cum Managing Director of the Authority.
- c. 13.3 That should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.

11.Company Code of Conduct

Bidders are also advised to have a company code of conduct (clearly rejecting the use of bribe and other unethical behavior) and a compliance program for the implementation of the code of conduct throughout the company.

12.The parties hereby sign this Integrity Pact at on ____

<p>AUTHORITY:</p> <p>Name of the Officer:</p> <p>Designation</p> <p>Witness</p>	<p>BIDDER:</p> <p>Name (Authorized Signatory):</p> <p>Designation:</p> <p>Witness:</p>
---	--



(TO BE SUBMITTED ON COMPANY LETTER HEAD)**7.15 DECLARATION OF LOCAL CONTENT**

Dated

I/We,M/s.....,address.....
....., hereby undertakes and declare that the proportion of imported content to Domestic content in terms of percentage (%) of the total value of quoted item/s are as follows –

Domestic Content (%) –

Imported Content (%) –

It is also declared that the value addition for the material supplied/ to be supplied is made at following locations:

- a)
- b)
- c).....
- d).....

We also understand that the false declarations will be in breach of the code of Integrity under rule 175(1)(i)(h) of the General financial rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.

Authorized Signatory,

VOLUME II

SCOPE OF WORK & DELIVERABLES, TECHNICAL & QA SPECIFICATIONS, TEST PLAN AND DELIVERY SCHEDULE

Chapter 1: Scope of work/ Deliverables

NSIL through this RFP is planning to engage Bidder/Vendor(s) for the supply, installation and commissioning of 45,252 (Forty-five Thousand Two Hundred and Fifty-Two only) rechargeable Li-ion batteries with in-built Battery Management System (BMS) for the Xponders on marine fishing boats (motorized boats) in 9 coastal states and 4 Union territories across the country at the user identified sites.

The Bidder/Vendor must also supply the detachable battery case for containing and securing the battery and install the same on the pole/mast/wall of the motorized boats. This case shall protect the battery from the external environment. The user should be able to remove and mount the case along with the battery as and when required. Along with the battery and its case, the Bidder/Vendor must also supply the interface connectors in accordance with the battery's power interface to connect the Xponder power line, additional wire extension (if necessary), battery charging adaptor and its associated cable and all the works that may not be included but are required to complete the scope of work of this RFP.

1.1 Details of Scope of Work

To provide more visibility on the work to be carried out by the Bidder/Vendor, the requirements are defined/ mentioned broadly in Table 1.1.

Table 1.1 Scope of Work & Responsibilities

Sr No.	Bidder/Vendor Responsibility	Buyer Responsibility
1.	Completion of the design reviews as per the defined milestones and submission of all the necessary documents, as highlighted in this Volume, to NSIL	Review of battery, BMS and its accessories' design as well as documents as per the defined milestones
2.	Development/Procurement, installation and demonstration of the Proto units on field at the user identified sites, as per the details provided in this Chapter's Section 1.2	Review and acceptance of the Proto units and accessories and approval for the mass production of the batteries and their accessories in the required quantity
3.	Procurement/manufacturing of rechargeable Li-ion batteries for marine fishing vessel in the state-wise quantity as indicated in the Volume I Section 7.1	Review of the cell, BMS, battery specifications & its procurement /

Sr No.	Bidder/Vendor Responsibility	Buyer Responsibility
	and as per the technical specifications shared in Volume II Chapter 2	manufacturing activities
4.	Procurement/manufacturing of the detachable case for Li-ion battery (along with clamp(s), screws etc.), which shall be mountable on pole/mast/wall of the motorized boat	Review of the mechanical specifications of the mount & its procurement / manufacturing activities
5.	Facilitating design of the battery's and its connectors' interfaces for the charging and Xponder power out ports. Procurement of the connectors and attaching the Xponder wire (1m default) with the mating connector to the battery. Procurement and extension of extra wire length to the Xponder (if required). The interface requirements are shared in <u>the Section 2.4.3 of this Volume</u>	Review of the interface and procurement / manufacturing activities
6.	Procurement/manufacturing of the battery charging adaptor and associated cables. The adaptor should be compatible with household 5A socket	Review of the battery charger specifications and its procurement / manufacturing activities
7.	Supply, installation, demonstration and commissioning of the Li-ion batteries in phases (to be communicated post PO issue) and the associated accessories on-field under the guidance of the user	Field Performance Review and suggestions. Approval of Installation reports and acceptance test results.
8.	Maintenance/repair of Li-ion batteries and associated accessories during Comprehensive on-site 5 years warranty (2 years Std warranty and 3 years Extended Warranty (3 rd ,4 th and 5 th Year) post completion of 2 years Std. Warranty)	Review, monitor and approve

Note:

- i. To inspect the nature & build of the boats for installation of the batteries, the Bidder/Vendor may opt to visit the sites across different states and UTs. The user agency shall facilitate availability of the boats across identified visit sites upon intimation by the Bidder/Vendor to NSIL. Cost of travel and accommodation shall be borne by the Bidder/Vendor.
- ii. All the batteries shall be delivered & installed on boats located at 9 coastal states and 4 union territories across the country. All the associated accessories indicated

in Table 1.2 shall be delivered along with the batteries. Bidder/Vendor shall plan to do the installation for Minimum average of 25-30 batteries per day on weekly basis per site/harbor (minimum 150 batteries per week) in coordination with the stakeholders involved.. The number of batteries to be installed and commissioned and location of supply will be provided after placement of order to the selected Bidder/Vendors.

- iii. All the accessories for battery installation will be part of deliverables and must be mentioned separately.
- iv. It is responsibility of the Bidder/Vendor to install the batteries in field. However, user agency will be responsible for making boats available and all logistics clearances required for installation.
- v. The Bidder/Vendor shall provide necessary training to boat operators for operation, safety and handling of the batteries. Further details in this regard shall be shared post PO release.
- vi. Bidder/Vendor to co-ordinate with user agency for dispatch, storage, and installation of batteries and its accessories.
- vii. User agency shall identify and communicate the location of warehouses / storage facilities to the Bidder/Vendor in advance (before dispatch of the batteries in state-wise allocated quantities) but it shall be the responsibility of the Bidder/Vendor for safekeeping of the hardware.
- viii. The Bidder/Vendor shall identify focal person for this project's execution, operation and maintenance phases. The person responsible shall revert to any issue raised in the respective phases and resolve the same within a stipulated time (to be finalized in the design reviews)

Table 1.1 mentions the major work share plan. Bidder/Vendor must note that this RFP is for development, supply and field installation of rechargeable Li-ion batteries for the intended application. Minor change in scope of work, which may be needed to meet the end objective of the project shall be accommodated without any additional cost.

The detailed test specifications to be performed on the batteries are given in [Volume II Chapter 5](#).

1.2 Proto Demonstration & Field Trial

- i. Post awarding of the provisional PO, the Bidder/Vendor shall deliver, install and demonstrate the Proto batteries and accessories in the defined quantities at the user identified sites along with the necessary accessories.

- ii. As part of the demonstration, the Bidder/Vendor shall install and demonstrate the detachable battery case and demonstrate connection of the Xponder cable and battery charging cable through the case peripherals
- iii. The Proto trial must be completed within the defined period as stated in the Milestones in Chapter 6
- iv. The Bidder/Vendor shall submit the necessary documents as per Section 1.4

1.3 Field Installation & Battery Maintenance:

- i. Battery installation is an integral activity to be undertaken by Bidder/Vendor. They are to be installed across the states & UTs mentioned in RFP (the sites shall be identified later).
- ii. Bidder/Vendor shall carry out installation of Minimum average of 25-30 batteries per day on weekly basis (minimum 150 batteries per week) per site/ harbor on the motorized boats provided by the User agency. The exact number of the batteries and location of supply will be provided after placement of order.
- iii. All the accessories as mentioned in the List of Deliverables in **Volume II Section 1.4.2** are to be delivered along with the rechargeable Li-ion batteries
- iv. Bidder/Vendor has to clearly specify the standard list of items supplied with the Li-ion batteries
- v. Limited number of the batteries may be proposed to be stationed as immediate replacement of faulty units. This will be finalized at the time of design review in consultation with user agency.
- vi. For any other maintenance/replacement requirements, the batteries and/or the required accessories need to be dispatched to Bidder/Vendor premises. Any repair/replacement should ideally not exceed 2 weeks.
- vii. Any anticipated delay beyond 2 weeks must be communicated by Bidder/Vendor with proper justification to user agency.

1.4 List of Deliverables:

1.4.1 Documents

Bidder/Vendor shall provide the documents as detailed in following sections.

A. Monthly Reviews

- a) Progress report for every month during the period of the contract. It shall compare the progress against the planned activities and projected activities for the upcoming month.
- b) At the start of next month's review, the Bidder/Vendor shall provide the close-outs of the previous month's review.

B. Before Design Review:

- c) Detailed battery design document giving all battery design parameters, with justification, assuring design adequacy in complying with all the specifications. Mechanical, Thermal & Electrical design documents shall be provided to NSIL. It should include all relevant interface control drawings, properties of materials and acceptance criteria and details of battery performance characteristics.
- d) Detailed battery charger specifications to confirm its compatibility with the battery
- e) Interface control document of the battery, its cables and the charger (combined) depicting the connector details and interfaces of peripherals
- f) Drawing of the battery case and its interface control drawing with clear depiction of the drilling holes and/or clamp(s) and accessible peripherals for accessing the battery's ports (charging and power out)
- g) List of components and materials used, their specifications, quality levels, derating details and sources of supply.
- h) Reliability analysis of the proposed battery.
- i) Certificates of the standards to be followed in manufacturing and testing of batteries and applicable accessories
- j) Standard Product assurance plan
- k) Mandatory inspection points during manufacture of batteries
- l) Traceability records of materials used during manufacture and testing of all batteries
- m) Documentary proof of heritage (with customer permission), if any.
- n) Test facilities and test instruments proposed to be used for the program along with calibration data.
- o) Detailed schedule plan to meet the delivery schedule requirement.

- p) Process control document giving details of each process involved, tolerances, in-process checks and acceptance criteria, to be shown to NSIL.
- q) Chart of the plan of activities for batteries and its accessories' procurement with schedule.
- r) Complete plan of activities for battery acceptance tests, as per Bidder/Vendor procedure.
- s) Details of subcontractors identified for various hardware/activities

C. At Design Review:

- a) Test Procedures, failure criteria and results of LAT, screening and matching of cells to be made available for review.
- b) Results, with failure criteria of LAT, screening & matching of cells to be provided to NSIL.

D. Before delivery of batteries:

- a) Certificate of technical conformity and statement of compliance to the technical requirements in applicable sections of this Volume.
- b) Traceability records of materials used during manufacture and testing of all batteries.
- c) Results of all battery tests done at OEM site [data pack].
- d) NCRs (Non Conformance Reports) and their dispositions.

E. With the batteries:

- a) Complete data pack of each battery (EIDP) which shall include all battery fabrication and test data and any other information necessary to ensure the batteries meet the requirements of the PO.
- b) Certificate of conformance /safety certificate of batteries and applicable accessories
- c) Performance characteristics of battery at different rates and temperatures, storage and maintenance procedures for short and long-term storage as indicated in Volume II Chapter 2
- d) A user handbook including safety precautions to be followed and procedures for transportation, handling and disposal and list of Dos & Don'ts.

F. Field Trial of Proto Batteries and Post Battery Installation

- a) Certificate of performance post successful Proto trial of the battery on the specific date at the user specified site
- b) Certificate of performance and installation post commissioning of the batteries and its accessories as and when installed/delivered at the user specified site and batches along with the acceptance test report. Warranty(2 Years) and Extd.Warranty (3 years) details of the respective batteries.

Note:

- i) The exact details of the nature and contents of the documents shall be agreed to between Bidder/Vendor and NSIL at appropriate times.
- ii) All documents shall be delivered sufficiently in advance for study and approval by NSIL. Suitable changes as required shall also be documented. A clear 10 days shall be provided to NSIL for its comments or approval before start of the activity indicated in the document.
- iii) Any other document, certificate, data or hardware that may be necessary for efficient and safe use of the batteries shall be supplied by the Bidder/Vendor.

1.4.2 Hardware

The Bidder/Vendor shall deliver the hardware in quantities as shown in Table 1.2. Apart from the items shown, the Bidder/Vendor shall provide the supporting items such as screws etc. necessary to complete the installation and commissioning of the batteries and its associated accessories on the marine fishing vessels (motorized boats).

Table 1.2: List of Deliverables

S. No	Item Description	Qty.	Remarks
1.	Packaged rechargeable Li-ion battery Proto units (for field trial) along with case and its installation on the mast/pole/structure of the motorized boat(s) and associated accessories viz. connecting cables/interface, battery charger compatible with 5A household socket and its cable with each	5	To verify the design, performance, compatibility with the Xponder, environmental specifications and field performance

S. No	Item Description	Qty.	Remarks
2.	Packaged final rechargeable Li-ion battery units with mountable case and their installation on the pole/mast/structure of the motorized boats and required accessories viz. the connecting cables/interface, battery charger compatible with 5A household socket and its cable	45,252	Packaged batteries and the stated accessories are to be delivered at user site as per PO specified quantity. The exact order quantity for a selected Bidder/Vendor may vary as per RFP terms & conditions. Please refer Volume I section 4.4.3 related to allotment of work quantity among selected Bidder/Vendors
3.	Data Packs of Qualification Model (QM)/Prototypes, Lot Acceptance Tests (LAT), Final Model (FM)	2 sets	Hard copy + Soft copy to NSIL
4.	Two (2) years of Std. Comprehensive Onsite warranty for the Batteries and charger from the date of installation and three(3) years Extended onsite comprehensive Warranty for the battery	1 No	Hard copy + Soft copy

Note:

- i. The above deliverables are indicative. Necessary accessories that may not be mentioned but are required for battery installation and operations have to be delivered along with batteries. This needs to be discussed and finalized at the time of design review with user agency & NSIL.
- ii. The bidder shall take into account of $\pm 10\%$ variation in supply of no. of batteries and its accessories and should maintain the inventory of components to meet the supply order with no change in terms & conditions.
- iii. As highlighted in the Volume I of this RFP, the final placement of order for the 45,252 shall be awarded only after successful delivery, installation and demonstration of the Proto units at the user identified sites by the Bidder/Vendor and results of relevant tests in Chapter 5.

The list of states & UTs is indicated in **Volume I Annexure 7.1**.

RFP for Installation of Rechargeable Li-ion battery for MSS Xponder



Ref. No. NSIL/ RFP/ MSS/ BAT/ 2024/ 01
29th Oct 2024

Chapter 2: Technical Specifications

The high-quality rechargeable Lithium-Ion batteries for the Xponders shall be assembled using hermetically sealed, standard Li-ion cells with good heritage.

The batteries shall have 'S-P'/'P-S' configuration, with '6S' to deliver a minimum capacity of 12 Ah at C/2 discharge at +20°C. The batteries shall have lightweight construction and shall be designed for use as per the project requirements specified in section 2.2 of this chapter.

The cells shall be screened and acceptance tested as per Bidder/Vendor's standard & certified procedures based on UN DOT 38.3 standard specifications.

Along with the batteries, supplied in line with the specifications indicated in this section, the Bidder/Vendor must also supply the detachable case for securing and mounting the battery on the pole/mast/wall of the marine fishing vessels (motorized boats) along with all the necessary clamp(s) & screws for drilling. In addition to the case, the Bidder/Vendor is to supply the battery charger, which should be compatible with the household 5A socket, and the associated connecting cables/harnesses for interfacing with the Xponder and battery charging adaptor respectively. By default, the Xponder shall have 1m wire length for both live and return. The interfacing connector / additional wire length for mating the connector of the battery is to be provided by the Bidder/Vendor.

The following subsections provide the details of electrical, mechanical and thermal requirements, quality assurance and reliability and life cycle requirements of the batteries.

2.1 General Requirements

The base line design architecture shall be 'S-P'/'P-S' technology using high quality Li-ion cells (LFP) with highly uniform properties, closely matched performance characteristics and built-in safety features as per [Volume II Annexure I](#). The configuration for the NSIL battery shall be 6S. Each battery shall have a minimum capacity of 12 Ah at C/2 discharge at +20°C and a mid-discharge voltage greater than or equal to 3.2V/cell.

Battery Management System (BMS) needs to be in-built (housed within the battery envelope). It needs to monitor battery voltage, cell voltage, cell temperatures. It should provide state of charge indicator as LED display and indicate full discharge corresponding to 20% SoC and full charge corresponding to 90% SoC. It should have mechanism to cut off battery on over charge or over discharge or over temperature. It should indicate the alarm conditions by sound and warning light.

Bidder/Vendor shall make a Master Control Document (MCD) including all specifications, process and quality assurance / control parameters which shall be submitted to NSIL for

information to the extent defined below. The MCD shall include the following:

- 1) The material list and process list for battery fabrication & testing
- 2) Measurement and test equipment used and their calibration status.
- 3) Manufacturing flow diagram with internal process checks and QA check points
- 4) Interface drawings
- 5) Battery assembly procedure and check points
- 6) Applicable documents for manufacturing of batteries.
- 7) Unique travel cards for each battery, maintained during the process of fabrication and testing till delivery.
- 8) Duly Completed formats for reporting Waivers, Non-conformances and Results.

Bidder/Vendor shall make available all the above documents for scrutiny by any NSIL representative at the premises of Bidder/Vendor, until the operating life of the batteries.

Bidder/Vendor shall prepare a detailed plan and schedule for the fabrication and testing of batteries and it shall be submitted to NSIL for review. This plan will be the basis for reporting the monthly progress and reviews.

Bidder/Vendor shall ship the batteries by suitable transportation with apt safety and handling precautions to the user identified sites.

2.2 Project Requirements

The design adequacy of 6S configured Lithium-Ion battery to meet the operational requirements to be checked and confirmed as per performance specifications indicated in Table 2.1.

Table 2.1 Performance Requirements of the Rechargeable Li-ion Batteries

S/N	Performance parameter	Value
1.	Total load in Xponder	15W peak/ 40Wh
2.	Number of batteries	45,252
3.	Battery operating voltage range	12 V to 24 V
4.	Battery Backup (minimum)	72 hrs
5.	Battery Capacity (minimum)	12Ah

S/N	Performance parameter	Value
6.	Battery Management System (BMS)	With individual standby source, protection features, charge state indicators (operate cells between 20% and 90% capacity), EMI (IEC6180), Sound and light alarm, confirming to IRClass guidelines
7.	Ingress Rating	IP 67
8.	Environment	Battery should be able to withstand the marine environment including, but not limited to, typical RH and temperature on Indian seas & ocean
9.	Storage life 10 – 30°C (Typical; Bidder/Vendor to specify)	1 year (transportation & acceptance testing)
10.	Operational Life	5 Years
11.	Design temperature range of operation	10 – 50°C
12.	Humidity	10 to 100% RH
13.	Charge current (Typical; Bidder/Vendor to specify)	C/10
14.	Discharge Current (Typical; Bidder/Vendor to specify)	6 A (for capacity check), 2.5 A (Nominal)

2.3 Cells Specifications

2.3.1 Cell type

The cells selected to fabricate the batteries shall meet the performance requirements listed in Table 2.2.

Table 2.2 Specifications of the Cells of Li-ion battery

S/N	Parameter	*Value (Bidder/Vendor to specify)
1.	Cell type	Size/chemistry/model no.
2.	Cell Dimensions	__mm x __mm x __mm (L x B x H) or dia __mm x length __mm

3.	Cell mass	___ g
4.	Maximum cell voltage	___ V
5.	Minimum cell voltage	___ V
6.	Nameplate cell capacity	___ Ah
7.	Minimum cell capacity	___ Ah
8.	Nameplate cell energy	___ Wh
9.	Nameplate specific energy	___ Wh/kg
10.	Nameplate energy density	___ Wh/l

* Bidder/Vendor is required to specify the actual values.

The cells selected for batteries shall have sufficient heritage and ground life tests should have been conducted to assure that the design meets the operational requirements provided in section 2.2.

2.3.2 Qualification tests for the cells and battery

The cells selected for the use in battery fabrication shall be subjected to stringent qualification tests and life tests at cell level, and battery level as specified in ANNEXURE-II of this Volume.

2.3.3 Cell LAT (Lot Acceptance Tests)

The cells selected for battery fabrication shall be part of the batch which is subjected to stringent standard LAT tests as specified in ANNEXURE-II of this Volume.

The LAT tests shall include capacity check and charge retention check tests at the ambient temperature to detect any variations in the batch of cells. Each cell used in the batteries shall be subjected to a screening test to achieve high reliability.

Bidder/Vendor shall provide details of the LAT test results for tests done on the cells. The test procedures shall be made available to NSIL for review. The test results shall be submitted to NSIL for information.

2.3.4 Screening and matching of cells

Each cell selected for battery fabrication shall be screened for the following aspects:

- Visual inspection of the cell at 10X magnification
- Mass and dimensional check
- Capacity measurement of cell

- EOC impedance measurement
- EOD impedance measurement
- Charge retention test

The capacity, EOC impedance, EOD impedance and self-discharge of every cell shall be measured to high precision. The measured cell properties shall be fully traceable to battery assembly through a unique BAR code on each cell. The charge-discharge characteristics of the cells shall be supplied to NSIL.

The cells selected to form strings shall be closely matched in capacity, EOC resistance, EOD resistance, self-discharge rate and voltage characteristics before fabrication of batteries.

Bidder/Vendor shall provide the screening and matching test procedure with specifications and test results to NSIL as a part of Design Review and EIDP (End Item Data Package).

2.3.5 Battery acceptance tests

The battery shall be subjected to stringent acceptance tests as specified in ANNEXURE-II of this Volume.

2.4 Battery specifications

The subsections outline battery specifications.

2.4.1 Overall specifications

Battery specifications including physical marking, dimensions, mass, electrical, thermal and mechanical requirements, accessories are detailed in upcoming subsections.

2.4.1.1 Identification and Product Marking

Each battery shall be uniquely identified by marking battery type, batch number, serial number, OEM/Bidder/Vendor's name and customer support no., NSIL logo and date of manufacture on a suitable surface of the battery so as to be visible. The battery batch number and serial number shall be located on the appropriate sidewall. The marking process and marking material shall not in any way affect the battery performance. The power lines shall be located in the connectors and be clearly identified in the ICD.

2.4.1.2 Visual Inspection

Each battery shall be examined, during stages of fabrication, for

- Quality of workmanship and absence of manufacturing defects
- Finish of welded and soldered joints
- Absence of Mechanical damages, scratches and other defects
- Identification markings as stated in section 2.4.1.1
- Presence of all deliverable parts

2.4.1.3 Conformance to drawing

Bidder/Vendor shall generate mechanical, electrical and general assembly drawings with Bill of Materials and parts and submit to NSIL for review / approval.

Each battery shall be checked for conformance to the above drawings.

2.4.1.4 Dimensions and mass

The battery dimensions and mass shall be as small as possible. Table 2.3 depicts the battery's preferable maximum values of size and mass. The Bidder/Vendor is to specify the maximum values against the respective parameter.

Table 2.3 Size & Mass Specifications of the Batteries

Sr. No.	Parameter	Value (Bidder/Vendor to specify)
1.	Length (Max) (Overall length of the battery including connectors)	180 mm
2.	Height (max)	120 mm
3.	Width (max)	120 mm
4.	Mass (max)	3 kg

After release of PO, no increase in dimensions and mass is possible. Bidder/Vendor shall provide Battery Interface Control Drawing including mass and dimension. There shall be no change in the mounting interface and electrical interface drawings after approval.

2.4.2 Electrical requirements

The electrical performance requirements are to be ascertained by the electrical tests.

2.4.2.1 Standard Capacity performance at ambient

A standard capacity measurement at initial stage of battery realization shall be done by battery manufacturer at specified maximum and minimum voltages at C/10 charge

and C/2 discharge respectively. This shall be taken as reference for quality control measure (see Annexure II section 5.1 for detailed procedures).

The battery shall have a minimum capacity of 12 Ah at C/2 rate at +20°C at the time of delivery.

2.4.2.2 Self-discharge

The fully charged battery when kept open for 30 days at 20°C shall deliver more than 95% of its stored energy. Bidder/Vendor to specify the battery (including BMS) leakage current due to self-discharge.

2.4.2.3 Insulation resistance

The battery, when tested for insulation resistance between the battery chassis with the battery positive and battery negative lines, shall have a resistance > 100MΩ at 500V.

2.4.3 Electrical Interface requirements

Connector and wiring requirements to be met.

2.4.3.1 Connectors

The battery shall be provided with suitable polarized connectors/connections with appropriate safety mechanism on battery and match Xponder harness.

Connector with appropriately derated 22 AWG wires or better shall be used for the power lines. Number of pins shall be finalized in later discussions between Bidder/Vendor and NSIL.

All the power positive / monitor positive connectors on the battery shall be of socket type.

2.4.3.2 Wiring and derating

The cells in the battery shall be arranged to form the battery.

The cells and wiring shall be arranged to minimize loops to reduce the dynamic magnetic fields.

All harness wires shall be appropriately derated.

i. Battery recharging connector

- The live and return line pairs and size shall be decided by the Bidder/Vendor in accordance with charge current specifications of the battery. The wires of the charging cable shall be appropriately derated.

Any changes in the wires or schematic shall be informed by Bidder/Vendor for acceptance by NSIL.

2.4.3.3 General

The cell-harnessing scheme shall use good design practice so as to minimize the magnetic moment generated by currents in the battery itself.

2.4.4 Thermal requirement

2.4.4.1 Temperature range requirements

The battery shall meet the temperature range requirements under various conditions as per table 2.4.

Table 2.4 Temperature Requirements of the Batteries

Conditions	Temperature range
Storage temperature range	Bidder/Vendor to specify
Operating temp range	+10°C to +50°C

Specified battery performance should be met over one year of storage and five years of operating life.

2.4.5 Mounting Interface

The battery shall be easy to remove or place inside the detachable case designed for the mounting on the boat. The case shall be mounted on to the fishing vessel (motorized boat) structure (pole/mast/surface) by the Bidder/Vendor with required number of fixing bolts and/or clamp(s). The battery should fit thoroughly and securely in the case and should not wobble inside during handling. The case should be able to withstand the marine environment and should be easy to mount/remove with the battery.

2.5 Specifications of the Battery Accessories

Along with the supply of each of the batteries, as per the specifications indicated in the preceding sections, the Bidder/Vendor is to provide the items as indicated in Table 2.5:

Table 2.5 Specifications of the Accessories with the Batteries

Sr. No.	Accessory	Specifications
1.	Battery Case (with clamp / mounting screws etc.)	<p>Case must house the battery securely and contain appropriate peripherals for accessing the battery interface(s) viz. charging port and MSS Xponder cable connection port. It should be easy to detach / mount the case on the specified surface. The peripherals for the access to the battery's power out and charging ports shall have suitable protection mechanism against external marine environment and water whenever the connectors of respective cables are not plugged in</p>
2.	Battery Charger	<p>The battery charger specifications should be in line with the battery's implicit charging requirements.</p> <p>The charger shall, invariably, be compatible with the household 5A socket.</p> <p>The Bidder/Vendor shall submit the specifications of the charger along with the bid. The charger should be safe to handle and must not overheat at the time of charging the battery. The charging cable interface must be compatible with the adaptor's as well as the battery's ports. Bidder/Vendor may design the interface in discussion with NSIL</p>
3.	Additional Wire	<p>By default, the MSS Xponder shall have minimum 1m wire length of the live as well the return signals. Any additional wiring length and it's securing has to be arranged by the</p>

Sr. No.	Accessory	Specifications
		Bidder/Vendor at no additional cost.
4.	Connectors for interfacing with Xponder power and battery charging cables	The connectors (battery's as well as interface cable's) should have suitable protection mechanism whenever cable(s) is disconnected, so as to protect the battery and the Xponder from external environment and water

Chapter 3: Quality Assurance & Reliability

3.1 Quality Assurance Plan/Manual

Bidder/Vendor shall implement a Quality Management System that meets the requirements of International Standards Organization (ISO). In case of sub-contract of the battery and other accessories, the Bidder/Vendor shall facilitate the availability of the stated inputs from the respective parties. NSIL shall be notified of any changes to the QA program. Bidder/Vendor shall submit detailed quality assurance plan for realizing the product(s). The plan shall include at least the following:

- Evidence for all parts, materials and processes used for realizing the battery shall have proven heritage or certificate of conformance for marine application.
- Declared parts and Material List (DML) and Declared Process List (DPL)
- Standards to be followed must be certified & informed to NSIL prior to manufacturing
- Cell certificate shall be as per IEC 62133-2 and battery certificate shall be as per IEC 62619
- Incoming acceptance test plan for the parts /materials proposed to be used in the battery
- Process identification Document including assembly procedure with relevant process flow / inspection points and criteria of acceptance.
- Quality assurance plan for the subcontracted items and accessories (especially the battery charger)
- Cell selection/matching and Lot acceptance plan
- Safety assurance plan for the cell and battery
- Design verification and Test & evaluation plan for the battery
- Non-conformance management plan
- Review process
- Certification process
- Qualification plan
- Any other standard applicable

3.2 Surveillance of the Bidder/Vendor

The work activities and operations, documents, records, equipment etc. of the Bidder/Vendor, subcontractors, and suppliers are subject to evaluation, review, survey, and inspection by NSIL representatives.

3.3 Mandatory Inspection Points

Bidder/Vendor shall identify inspection points as part in-process inspection of the battery.

Bidder/Vendor shall identify the mandatory inspection points and maintain the record as per the standard quality assurance procedure.

3.4 Reliability

All materials used in the manufacturing of the battery shall be of proven heritage/ Certificate of Conformance (CoC) in marine environment. The battery shall be designed to have very high reliability when used in marine environment for the duration and type of application specified in **section 2.2**. All batteries delivered shall be identical in all respects. They shall be of uniform quality and manufactured out of materials procured from same Bidder/Vendors.

Bidder/Vendor shall provide reliability analysis document.

3.4.1 Electrical, Electronic, and Electromechanical Parts Stress Analysis

- Bidder/Vendor shall provide necessary documentation.
- Bidder/Vendor shall provide evidence either by test or by analysis that the battery designed will meet the life requirement of 5 years in MSS Xponder after 1 year storage on-ground.

3.4.2 Failure Report and Analysis

Bidder/Vendor shall provide the procedures and general practices that should be followed for handling failure and non-conformance at various stages of manufacture and testing. Any failure during testing or fabrication, shall be documented and reported to NSIL within 24 hours.

Bidder/Vendor shall provide, as part of the monthly report, a list of all failure reports, actions which are open and actions which are closed during the month. For each reported failure or non-conformance, there shall be a report that documents the investigation and engineering analysis needed to determine the cause and corrective actions to disposition the failure. Reports shall be submitted to NSIL for review and approval of the disposition.

3.5 Workmanship

The batteries shall be in good shape and condition with good surface finish and devoid of scratches, dents, deposits etc. Any sharp edges and burrs shall be eliminated.

3.6 Safety Requirements:

The batteries shall be designed to be able to withstand the coastal / marine environment across the 9 Indian states and 4 UTs (as listed in **Volume I Annexure 7.1**), with the temperature and humidity specifications as indicated in **Volume II Table 2.1**

The battery design shall conform to safety requirements as applicable to Lithium-ion batteries such as overcharge, forced discharge, short circuit, flame resistance, mechanical damage etc as per this Volume's Annexure I.

3.7 Corrosion

The materials used external to the cell and internal to the battery shall have the following properties:

- All external materials used in the manufacture of batteries shall be non-corrosive or shall be subjected to corrosion resistive treatment, resistant to fungus growth under conditions of 90% relative humidity at 10-50°C and able to withstand marine environment.

Deviation, if any, in this regard shall be communicated to NSIL and approval taken before Design Review.

3.8 Traceability and Input Material Inspection

All materials used in the manufacture of batteries shall be traceable to the input lot, whose characteristics shall have been measured, checked for conformity and recorded at the time of input material inspection. All material inspection reports shall be made available to the NSIL when required. A log of all procedures, in-process checks, test conditions and results shall be maintained for all the batteries. This logbook shall be made available for scrutiny by NSIL. The logbook shall also include recent calibration certificates of all equipment used. Bidder/Vendor shall provide reference numbers of all applicable documents in the manufacturing and Control Document and all of them shall be available for inspection by NSIL.

All logbooks and manufacturing records, which are not deliverable, shall be maintained by Bidder/Vendor for the operational life from the date of delivery of the hardware for traceability and any other diagnostic purpose.

3.9 Storage

The Bidder/Vendor shall specify the battery storage temperature which shall be maintained when under their custody and the batteries shall meet all the functional requirements as stated in the previous sections, after storage.

3.10 Handling, Packaging and Shipping

The batteries and the associated accessories with each, shall be suitably packed and shipped as per Bidder/Vendor's standard procedure. Each battery shall be packaged in an insulated material to avoid any electrical short circuit. The batteries shall be packed in suitable containers to withstand environmental stresses and handling loads during transport.

Chapter 4: Program Management Plan

This chapter details with plans, reviews and documentations.

4.1 Programme Execution Plan

1. The Bidder/Vendor shall outline a tentative broad plan for the execution of the Programme post PO placement. The plan proposed by the Bidder/Vendor shall highlight milestones, checks and timelines for supply and installation of the rechargeable Li-ion batteries and its associated accessories
2. The project plan shall include a stage-wise set of deliverables and a basis for quantification of progress
3. Failure to meet deadlines as agreed to in the final approved plan shall result in imposition of penalties as defined in [Volume III](#) of this RFP
4. QA management aspects like Mandatory Inspection Point (MIP), Key Inspection Points (KIPs) and appropriate review milestones shall be included in the project plan.

4.2 Management and Reporting

Bidder/Vendor shall designate a single individual who will be given full responsibility and authority to manage and administer all phases of the work specified by the PO and ensure that all objectives are accomplished within schedule and cost constraints. This individual shall be the focal point for contact and communication with NSIL for all aspects of the battery contract.

4.3 Documentation

Bidder/Vendor shall ensure the generation and delivery of all documentation as called for in the PO. This shall be the QA documentation for the build standard, non-conformance reporting, testing and progress reporting. Data of all the test is needed to be provided in MS Excel format.

4.4 Cell and Battery Design Reviews and Meetings

Bidder/Vendor shall organize and present a detailed Design Review to an NSIL Review Team on a date mutually agreed upon or as defined in the PO. This review shall demonstrate readiness to start fabrication of the Batteries. This review shall cover programmatic, test and verification, and quality assurance aspects associated with the cells, and battery manufacturing as well as the specified battery accessories. This review shall also provide an opportunity to review and approve cell matching data, cell and battery MCD and to assess the compatibility of the battery accessories before the start of battery fabrication.

Bidder/Vendor shall provide required deliverable data to NSIL at least 10 working days in advance of the Design Review.

A Design Review Report shall be prepared following the review, which as a minimum shall contain meeting notice, agenda, minutes of the review meeting described above and response to all recommendations and action items generated during the review.

The Bidder/Vendor shall also provide the monthly progress report and hold meeting on same with NSIL team. At the start of next month's review, the Bidder/Vendor shall provide the close-outs of the previous month's review.

4.5 Pre-shipment Review

Bidder/Vendor shall hold a pre-shipment Review, prior to shipment of batteries. NSIL reserve the right to attend. In the PSR the qualification data (as applicable), LAT results/battery results and NCR shall be presented by the Bidder/Vendor.

Chapter 5: Test Plan

This chapter details with test sequence, procedures and reports.

5.1. Test Sequence

The tests to be performed on the Lithium-Ion cells/batteries are given in **Tables 5.1 & 5.2**. These tests shall be performed in the exact sequence agreed to between Bidder/Vendor and NSIL.

5.2. Qualification test plan

The cell, BMS and battery shall be subjected to qualification tests conforming to standard procedures including UN DOT 38.3 **standard**. The table 5.1 defines the tests on cell, BMS and battery.

Table 5.1 Qualification Tests on Cell, BMS & Battery

S.no.	Test	Test Description
1.	Cell Qualification tests	Applicable tests from annexure II
1.1	Cell Capacity at 0°C	See Annexure II Section 5.1
1.2	Cell Capacity at 20°C	
1.3	Cell Capacity at 60°C	
1.4	Standard Capacity Test at 20°C	
1.5	Charge retention at 20°C	See Annexure II Section 5.2
1.6	Self-Discharge test at 20°C	See Annexure II Section 5.3
2.	Cell Safety Verification Tests	Applicable tests from annexure II
2.1	Over Charge protection Test	See Annexure II Section 5.5
2.2	Forced Discharge Test	See Annexure II Section 5.6
2.3	Over Pressure Protection Mechanism	See Annexure II Section 5.7
2.4	Charge Interrupt Device	See Annexure II Section 5.7
3.	Life Tests	See Annexure II Section 9

S.no.	Test	Test Description
3.1	Calendar Life Test at different States of Charge at 50°C	See Annexure II Section 9.1
3.2	Accelerated Life Cycle Life Test at 50°C	See Annexure II Section 9.2
3.3	Dynamic Stress Test (DST) at 80% Depth of Discharge at 50°C	See Annexure II Section 8
4.	BMS alone Tests	Refer Annexure II section 7
4.1	Functional Tests (FT) at ambient	Bidder/Vendor to specify procedures
4.2	FT at 0°C	Bidder/Vendor to specify procedures
4.3	FT at 60°C	Bidder/Vendor to specify procedures
5.	Battery Tests	Applicable tests from Annexure II section 4
5.1	Battery Capacity at 0°C	See Annexure II Section 5.1
5.2	Battery Capacity at 20°C	
5.3	Battery Capacity at 60°C	
5.4	Charge retention at 20°C	See Annexure II Section 5.2
5.5	Self-Discharge test at 20°C	See Annexure II Section 5.3

Table 5.2 indicates the applicable tests for the cells and batteries as per the UN DOT 38.3 standards. Section numbers indicated therein are same as those in the UN DOT 38.3 document. Quantity and condition should be as per sections 38.3.3 and 38.3.4 respectively, considering the battery Watt-hour/size.

Table 5.2 UN DOT 38.3 Tests for Cell & Battery

S.no.	UN DOT 38.3 tests for cell and battery	Applicable Section in UN Manual of Test & Criteria Sixth Revised Edition Sub-Section 38.3
1	Altitude Simulation Test	As per 38.3.4.1
2	Thermal Test	As per 38.3.4.2
3	Vibration	As per 38.3.4.3
4	Shock	As per 38.3.4.4
5	External Short test	As per 38.3.4.5
6	Impact	As per 38.3.4.6
7	Overcharge	As per 38.3.4.7
8	Forced discharge	As per 38.3.4.8

5.3. LAT test plan

Bidder/Vendor shall provide details of the Lot Acceptance Test (LAT) procedure with failure criteria, of tests to be done on the cells and shall maintain a complete record of the test results. The test procedures and results shall be made available to NSIL for review.

LAT tests are to be repeated where the cell lot differs. A single lot refers to batch of cells from single manufacturer with same specification and date code of manufacturing is also same. If any sample fails the test, then the whole lot shall be rejected and fresh lot needs to be taken for LAT tests. Cells from same LAT accepted lot should be used in single battery.

Table 5.3 Cell LAT tests

S.no.	Cell LAT Test	Reference
1.	Cell Capacity at 0°C	See Annexure II Section 5.1
2.	Cell Capacity at 20°C	
3.	Cell Capacity at 60°C	

S.no.	Cell LAT Test	Reference
4.	Charge retention at 20°C	See Annexure II Section 5.2
5.	Self-Discharge test at 20°C	See Annexure II Section 5.3
6.	Visual Inspection	Bidder/Vendor to specify the procedure
7.	Insulation Measurement	Check insulation of terminal with respect to insulated body (Bidder/Vendor to specify the procedure)
8.	Mass	---
9.	Dimension	---
10.	DST at 80% at 50°C	See Annexure II Section 8

5.4. Acceptance test plan

Bidder/Vendor shall deliver the batteries after completing acceptance tests as defined in Table 5.4.

Table 5.4 Battery acceptance testing before shipment

SR. NO.	TEST DESCRIPTION	TESTS ON ALL BATTERIES
1.	BATTERY CONFORMANCE TESTS a. Identification and Product Marking b. Electrical and Mechanical EID verification c. Initial Functional checks d. Visual Inspection e. Dimension and Mass checks f. Isolation checks	X
2.	Standard capacity test [20°C]	X
3.	Charge retention Test [20°C]	X
4.	BMS functional check	X
5.	Review of results	X

Acceptance testing of batteries shall be performed as per procedure given in ANNEXURE-II to ensure conformity with all the specifications given in Chapter 2. Table

5.4 gives the battery acceptance test plan.

In case of failure of any battery, detailed analysis shall be performed to determine the cause of failure and reviewed by Bidder/Vendor and NSIL. If the failure is due to a generic manufacturing / design defect, then all the batteries of that lot shall be rejected and Bidder/Vendor shall collect the same on as-is- where-is basis. Bidder/Vendor shall replace the batteries entirely at his cost.

If the failure is diagnosed as not due to generic defect and is due to any equipment or human errors, the test shall be repeated on the same battery or the battery will be replaced free of cost as the case may be.

NSIL reserves the right to witness and review the progress of work at various milestones of the programme. If any test is to be carried out at a place other than the supplier's premises, the Bidder/Vendor shall make appropriate arrangements for the participation of the NSIL nominee(s).

Note: Plan and schedule of activities for tests to be conducted by Bidder/Vendor, shall be intimated to NSIL at least 10 days prior to start of the test.

All tests shall be carried out in accordance with approved test procedures. Unless otherwise stated, all tests required shall be performed at standard atmospheric pressure, at a temperature of $20^{\circ}\text{C}\pm 3^{\circ}\text{C}$ and a relative humidity of 30% to 60%.

Chapter 6: Delivery & Payment Schedules

6.1 Delivery Schedule

It is proposed that the Bidder/Vendor shall deliver fully qualified rechargeable Li-ion batteries (with all accessories) with all approvals within 16 weeks and start of bulk production within 20 weeks from placement of order. The duration of ATP and fixing of any problem should be within 16 weeks. No extension in delivery schedule will be granted without a valid reason approved by NSIL. A detailed time schedule (with milestones) to be provided by Bidder/Vendor.

There will be regular review of the complete activities of Bidder/Vendor by NSIL. A delivery schedule with proposed milestone is given in Table-6.1. This table has to be updated by Bidder/Vendor and submitted for periodic review of project progress. The overall delivery schedule should be as suggested above.

T0: Date of order acceptance but not later than 5 working days from the date of Purchase Order

Table 6.1: Delivery and Installation Schedule of the Li-ion Battery & Accessories

Sr. No.	Activity Milestone	Timeline (in weeks)
1.	Hardware Design Submission for battery and its fitment on the motorised boats	T0+2
2.	Delivery of Proto-battery with accessories and its field demonstration with Xponder on motorised boats	T0+06
3.	Proto battery functional testing fitment on motorised boats and closeout	T0+08
4.	ATP & environmental test report submission and validation	T0+10
5.	First full lot of Proto battery delivery (5 No.)	T0+12
6.	Bulk production and completion of installation of Li-ion batteries	T0+24

6.2 Payment Schedule

Table 6.2: Payment Schedule of the Li-ion Battery & Accessories

S. N	Milestone	Timeline	Payment	Remarks	
1.	Completion of Design Review of battery and its fitment on the motorised boats	T0 + 2	---	---	
2.	<ul style="list-style-type: none"> Proto battery functional testing and closeout Proto-battery field demonstration with Xponder on motorised boats ATP & environmental test report submission and validation 	T0 + 10	5%	---	
3.	min. 20% of the ordered quantity of Lithium-Ion Batteries and the associated accessories at designated locations	Delivery	T0+12	12%	<p>NSIL shall make the payment to the Bidder/Vendors against each milestone activity as defined in the Payment Schedule in three parts,</p> <ol style="list-style-type: none"> 1) Delivery per Lithium-Ion Battery and the associated accessories (80% of the value) 2) Installation & Commissioning per Lithium-Ion Battery and the associated accessories (20% of the value) 3) Delivered but Uninstalled Lithium-Ion Batteries due to non-availability of boats within 6 weeks from the due date of delivery or actual date of delivery whichever is later (after deduction of 10% of the value). <p>NSIL shall make payment to the Bidder/Vendor against the invoice raised after retaining warranty amount of 5%.</p> <p>Upon delivery of a minimum of 10% of the ordered quantity of Lithium-Ion Batteries at the designated locations, the Bidder/Vendor can raise an invoice of such no. of delivered Lithium-Ion Batteries with the requisite documents.</p>
		Installation, and commissioning	T0+16	4%	
4.	min. 40% of the ordered quantity of Lithium-Ion Batteries and the associated accessories at designated locations	Delivery	T0+14	12%	
		Installation, and commissioning	T0+18	4%	
5.	min. 60% of the ordered quantity of Lithium-Ion Batteries and the associated accessories at designated locations	Delivery	T0+16	12%	
		Installation, and commissioning	T0+20	4%	

S. N	Milestone	Timeline	Payment	Remarks	
6.	min. 80% of the ordered quantity of Lithium-Ion Batteries and the associated accessories at designated locations	Delivery	T0+18	12%	
		Installation, and commissioning	T0+22	4%	
7.	100% of the ordered quantity of Lithium-Ion Batteries at designated locations	Delivery	T0+20	12%	
		Installation, and commissioning	T0+24	4%	
8.	Extended Warranty for period of Three (03) Years		15% (5% per year)	Payment will be done half yearly basis On Certification from NSIL/DoF/Authority nominated Rep by deducting LD if any.	
Total Paid Amount to Bidder/Vendors (%)			100%		

Note:

- Invoice can be raised by the Bidder/Vendor on a pro-rata basis subject to completion of delivery & installation within the due date of each milestone.
- Invoice can be raised by Bidder/Vendors in three parts:
 - a. Delivery of Lithium-Ion Batteries (min. 10% of quantity); P
 - b. Installation & Commissioning of Lithium-Ion Batteries (min. 10% of the installed terminals); &
 - c. Delivered but Uninstalled Lithium-Ion Batteries due to non-availability of boats (excluding 10% of taxes+taxes).

Annexure - I

Built-in safety features of cells

Bidder/Vendor to provide the details on the inbuilt safety features of the cells. An indicative format has been shown in table I.1.

Table I.1: Cell Safety features

	Safety Feature				
	Overcharge Protection	Shut-down Separator	Controlled Cell Vent	PTC	...
Triggers at (including Tolerance)					
Resets at (including Tolerance)					
Post-reset effect					
Reversible/ irreversible					
Remarks					

Note: In addition to the safety features highlighted in Table I.1, the battery must comply with the following standards/requirements as well: -

1. The battery's BMS must have fuses, cable, circuits and breakers as per standard
2. Ingress protection IP67 or better
3. Durable flame resistant, moisture resistant material to withstand marine environment
4. Prevention of thermal runaway
5. Vent provision
6. Bidder/Vendor should submit the material safety datasheet
7. Cell specifications must show max/min voltage, current, operating and storage temperature, SoC as well as safety features
8. Cell and battery need to be certified as per the UN regulations UN3480, UN 3481 and UN 3090 (as applicable).
9. Bidder/Vendor shall specify the battery disposal mechanism, incentive (if any) & safety instructions. These manuals shall be included with each of the battery during delivery

Annexure - II

Test plan for acceptance of Lithium-Ion batteries

1 Scope

This annexure gives details of tests along with procedures to be followed and the relevant failure criteria, acceptance of cell, BMS and Lithium-Ion batteries whose quality confirms to marine application. These tests are conducted to ensure compliance with all the laid down specifications.

2 Tolerances

Unless stated otherwise, the following tolerances, in Table II.2 are applicable for test conditions and measurement accuracy for corresponding measurements.

Table II.2: Test tolerances

S/N	Parameter	Test tolerance	Measurement accuracy
1.	Temperature	$\pm 3^{\circ}\text{C}$	$\pm 1^{\circ}\text{C}$
2.	Relative humidity	$\pm 5\%$	$\pm 1\%$
3.	Time (test duration)	+5% , -0%	<1hr: $\pm 1\%$, >1hr: 1min
4.	Voltage (0 to 45V)	$\pm 20\text{ mV}$	>5V: $\pm 0.2\%$
5.	Current or Power	$\pm 2\%$	$\pm 1\%$

All meters, scales, thermometers and similar measuring and test equipment used in conducting the tests shall be accurate to within $\pm 1\%$ of the full-scale value. All test apparatus shall be calibrated at suitable intervals against standards whose calibration is traceable to the National Bureau of Standards. Records of such calibration shall be available for inspection.

3 Standard test conditions

Unless stated otherwise, the standard test conditions are as follows:

Sr. No.	Parameter	Value
1.	Temperature	$20 \pm 3^{\circ}\text{C}$
2.	Pressure	standard atmospheric pressure

3.	Relative Humidity	Less than 60%
4.	Stabilization	Temperature variation in 2hours time less than $\pm 2^{\circ}\text{C}$.
5.	Discharge voltage	All capacities are measured to a minimum discharge voltage (based as the values as defined in cell datasheet) ____ V/cell. (Bidder/Vendor to specify)
6.	Charge voltage	All batteries to be charged to maximum charge voltage (based as the values as defined in cell datasheet) ____ V/cell. (Bidder/Vendor to specify)

Note: For each test the battery shall be soaked at the required temperature for at least 2 hours before start of test.

4 Battery Conformance tests

4.1. Identification and Product Marking

As per Chapter 2 Section 2.4.1.1

4.2. Electrical and Mechanical ICD verification

As per Chapter 2 Section 2.4.1.3

4.3. Initial Functional checks

The following shall be conducted to verify the integrity of thermistors, cells and connections as defined in the design.

- Measurement of full battery voltage
- Verification of thermistor operation
- Measurement of thermistor resistance
- Any other measurements

These tests shall be performed at various stages throughout the test program and the results shall be documented in the test results format in tune with the test procedure.

4.4. Visual Inspection

Battery shall be subjected to visual examination as per Chapter 2 Section 2.4.1.2 for workmanship, finish, markings, damage and any other non-conformances.

Failure Criteria:

1. Surface finish not good
2. Damage in welded or soldered joints.
3. Battery identification number not marked
4. Surface having bulges or dents
5. Corrosion marks on any part of the battery/cell
6. Damage to interface to BMS/ BMS indicators

4.5. Dimensions and mass

The measurement of mass as per Chapter 2 Section 2.4.1.4 shall be determined to an accuracy of 0.01 kg.

Failure Criteria: Battery mass exceeding the limit specified (A value less than equal to shall be confirmed by the Bidder/Vendor)

4.6. Isolation

Tests shall be performed to ensure isolation between the following points [Procedure to be given by Bidder/Vendor]:

- All positive and negative battery power lines from chassis
- Chassis to thermistors
- Thermistors to power lines

Failure Criteria: Resistance < 100 MΩ at 500 V

4.7. Chemical Leak test

This test shall be done on all batteries. Bidder/Vendor shall provide procedure and failure criteria to check leak in battery.

5 Cell/Battery electrical tests

5.1. Standard Capacity Test

The following procedure shall be adopted to perform the standard capacity measurement.

- a) Stabilize the battery at T=zz°C (test temperature as applicable), or rest 1 hour if test is at the same temperature as the previous test.
- b) Discharge the battery at C/10 rate, until the battery voltage reaches yy V (minimum voltage: Bidder/Vendor to Specify).

- c) Charge at C/10 rate, until battery reaches the set upper limit of 3.6V/cell or 21.6V/battery (Bidder/Vendor to Specify)
- d) Measure and record battery voltage, current and temperature every 30 minutes and also time to reach EOC V.
- e) Measure voltage after 2 seconds and calculate End of Charge resistance.
- f) Rest 10 minutes.
- g) Discharge at C/2 rate, until battery reaches yy V (minimum voltage: Bidder/Vendor to Specify) Measure and record battery voltage, current and temperature every 15 minutes and also time to reach EOD V.
- h) Measure voltage after 2 seconds and calculate End of Discharge resistance.
- i) Compute the charge and discharge capacities and the charge efficiency.
- j) Compute the charge and discharge energy and the energy efficiency.
- k) Compute the average voltages (= Wh/Ah) in both charge and discharge.

Failure criteria: The capacity obtained is less than 12 Ah (Bidder/Vendor to Confirm a value greater than or equal to 12 Ah at 20°C or higher and value >10Ah for lower temperatures)

5.2. Charge Retention Test

This test can be performed as follows:

- a) Stabilize the battery at 20±2°C.
- b) Charge at C/10 up to upper limit of 3.6V/ cell or 21.6V/battery (corresponding to 100% SoC, Bidder/Vendor to Specify).
- c) Measure voltage after 2 seconds and calculate End of Charge resistance.
- d) Rest for 24 hours.
- e) Discharge at C/10 up to lower limit of 2.5V/ cell or 15V/battery (corresponding to 0% SoC, Bidder/Vendor to Specify the voltage).
- f) Measure voltage after 2 seconds and calculate End of Discharge resistance.
- g) Calculate the difference between Ah_{in} and Ah_{out}. Calculate the leakage current.

Failure criteria: The difference in SoC <3% (a stringent value could be provided by the Bidder/Vendor)

5.3. Self-Discharge Test

This test can be performed as follows:

- a) Stabilize the set of cells or battery at 20±2°C.

- b) Charge at C/10 up to upper limit of 3.6V/cell or 21.6V/battery (corresponding to 100% SoC, Bidder/Vendor to Specify the voltage).
- c) Measure voltage after 2 seconds and calculate End of Charge resistance.
- d) Rest for 30 days.
- e) Discharge at C/10 up to lower limit of 2.5V/cell or 15V/battery (corresponding to 0% SoC, Bidder/Vendor to Specify the voltage) .
- f) Measure voltage after 2 seconds and calculate End of Discharge resistance.
- g) Calculate the difference between Ahin and Ahout. Calculate the leakage current.
- h) Repeat steps b-g.
- i) Run the test for another 3 sets of cells or batteries with end of charge in step (b) set to 0% SoC, 25% SoC, 50% SoC and 100% SoC, respectively (Bidder/Vendor to specify the voltage and the method of charge cut off). Repeat steps c-h for each set.

Failure criteria: The difference <3% (a stringent value to be provided by the vendor)

5.4. External Short Test

The cell or battery shall be subjected to the external short test as per UN DOT 38.3 standard 38.3.4.5 Test T.5. The cell or battery shall be heated for a period of time necessary to reach a homogenous stabilized temperature of 55 ± 2 °C. Short applicable shall be $\leq 0.1 \Omega$. This short condition is continued for a duration for at least 1 hour after the cell or battery external case temperature has returned to 55 ± 2 °C.

The cell or battery shall meet this requirement if its external temperature does not exceed 170 °C and there is no disassembly, rupture or fire during the test and within 6 hrs after the test.

5.5. Overcharge Test

The cell or battery shall be subjected to the overcharge test as per UN DOT 38.3 standard 38.3.4.7 Test T.7. The charge current in this test shall be twice the Bidder/Vendor's recommended maximum continuous charge current. The minimum voltage of the test shall be 1.2 times the maximum charge voltage. The test shall be conducted at the ambient temperature. The duration of the test shall be 24 hrs.

The cell or battery shall meet this requirement if there is no disassembly and no fire during the test and within seven days after the test.

5.6. Forced Discharge Test

The cell or battery shall be subjected to the forced discharge test as per UN DOT 38.3 standard 38.3.4.8 Test T.8. Each cell shall be forced discharged at ambient temperature by connecting it in series with a 12V DC power supply at an initial current equal to the maximum discharge current specified by the Bidder/Vendor. The specified discharge current is to be obtained by connecting a resistive load of the appropriate size and rating in series with the test cell. Each cell shall be forced discharged for a time interval (in hrs) equal to its rated capacity divided by the initial test current (in Ampere).

The cell shall meet this requirement if there is no disassembly and no fire during the test and within seven days after the test.

5.7. Over Pressure Protection Mechanism

Cell is expected to have pressure protection mechanisms like Charge Interrupt Device and leak before burst feature. For the test the procedure need to be specified by the Bidder/Vendor. An example of the procedure is as follows:

For the mechanism present in top the cell, the cell case of sample cell is sliced in the middle along horizontal axis preserving the cell top terminal. The case will be bonded to burst-disc measurement fixture using appropriate adhesive. Inert gas is passed in incremental pressures and operation of pressure protection mechanism at appropriate pressure is verified.

The mechanism or the first mechanism (where more than one mechanism exists) will operates at least 3 times above the maximum operating pressure

6 Environmental tests:

6.1. Mechanical tests:

The battery shall be subjected to the vibration and shock tests as specified in the following sections.

6.1.1 Vibration Test

The battery shall be subjected to vibration test as per the UN DOT 38.3 standard (38.3.4.3 Test T.3). The vibration shall be a sinusoidal waveform with a logarithmic sweep between 7 Hz and 200 Hz and back to 7 Hz traversed in 15 minutes. This cycle shall be repeated 12 times for a total of 3 hours for each of three mutually perpendicular mounting positions of the cell. One of the directions of vibration must be perpendicular to the terminal face.

There should be no leakage, venting, disassembly, rupture and fire during and after the test. Open circuit voltage of each test cell or battery after this test should not be

less than 90% of its voltage immediately prior to this procedure.

6.1.2 Shock Test

The cell/battery shall be subjected to the shock test as per the UN DOT 38.3 standard (38.3.4.4 Test T.4). Each cell/battery shall be subjected to a half-sine shock of 150 g_n and pulse duration of 6 milliseconds. It shall be subjected to three shocks in the positive direction and to three shocks in the negative direction in each of the mutually perpendicular mounting positions of the cell/battery for a total of 18 shocks.

There should be no leakage, venting, disassembly, rupture and fire during and after the test. Open circuit voltage of each test cell or battery after this test should not be less than 90% of its voltage immediately prior to this procedure.

6.1.3 Impact Test

The cell or battery shall be subjected to the impact test as per the UN DOT 38.3 standard (38.3.4.6 Test T.6). The test sample cell or component cell or battery is to be placed on a flat smooth surface. A 15.8 mm ± 0.1 mm diameter, at least 6 cm long, or the longest dimension of the cell, whichever is greater, Type 316 stainless steel bar is to be placed across the centre of the sample. A 9.1 kg ± 0.1 kg mass is to be dropped from a height of 61 ± 2.5 cm at the intersection of the bar and sample in a controlled manner using a near frictionless, vertical sliding track or channel with minimal drag on the falling mass. The vertical track or channel used to guide the falling mass shall be oriented 90 degrees from the horizontal supporting surface.

The test sample is to be impacted with its longitudinal axis parallel to the flat surface and perpendicular to the longitudinal axis of the 15.8 mm ± 0.1 mm diameter curved surface lying across the centre of the test sample. Each sample is to be subjected to only a single impact.

The cell or battery shall meet this requirement if its external temperature does not exceed 170 °C and there is no disassembly, rupture or fire during the test and within 6 hrs after the test.

6.2. Thermal tests

Fully charged cell/battery shall be subjected to the thermal test (standard UN DOT 38.3 test std 38.3.4.2 test T.2) as per following table: -

Sr. No.	Temperature (°C)	Duration (hrs)
1.	75±2	6 (excursion within 30 minutes to low temperature)

Sr. No.	Temperature (°C)	Duration (hrs)
2.	40±2	6
3.	20±2	6

There should be no leakage, venting, disassembly, rupture and fire during and after the test. Open circuit voltage of each test cell or battery after this test should not be less than 90% of its voltage immediately prior to this procedure.

6.3. Capacity measurement at 20°C [Post environmental tests]

Same as 5.1.

7 BMS tests

Battery Management System (BMS) shall be tested to verify the overall functionality of the BMS. BMS should meet applicable IECClass guidelines. Bidder/Vendor needs to give detailed procedure with specification (for standalone BMS and after integration into battery) at appropriate initial stage of contract, say, before Design Review. It shall include (and not limited to) verification of monitoring, control, protection and display function. The test temperature shall cover 0°C, ambient and +60°C. The repeat tests shall be made after environmental tests and performance is conformed to predefined criteria.

BMS integration procedure for mounting into battery shall be made and ICD, EID, MID shall be defined in advance. The functional tests of BMS within battery shall adequately verify monitoring, control, protection and display functions before, during and after the battery tests.

8 Dynamic Stress Test (DST)

Dynamic Stress Test (DST) is go-no go check on the quality of cell. The failure in the test will lead to rejection of cell type/cell lot.

8.1. Initial Cell Analysis

- a. All cells are to be kept in chamber with chamber temperature at 50 °C.
- b. Identification of cells as per serial number.
- c. Measure initial cell voltages.

8.2. Capacity evaluation at C/3 rate with dynamic performance

The following charge, discharge & dynamic performance procedure shall be adopted to perform the capacity measurement.

- a) Stabilize the cells at $50 \pm 2^\circ\text{C}$
- b) Discharge the cell at C/3 rate, until the cell reaches its minimum discharge voltage.
- c) Charge at C/3 rate, until cell reaches maximum charge voltage then taper to C/30.
- d) Measure and record cell voltages, currents & temperature every 10mins.
- e) Measure cell OCV after EOC & open.
- f) Rest for 10 mins.
- g) Discharge at C/3 rate until cell reaches EOD voltage.
- h) Measure & record cell voltage, current & temperature every 10mins.
- i) Dynamic performance test:
 - i. After 36 minutes of discharge at C/3 rate, measure the cell voltage.
 - ii. Increase the discharge rate to C/1.5 rate for 0.5s.
 - iii. Measure and record the voltage on the logger continuously & observe the voltage drop over the period of 0.5s.
 - iv. Decrease the discharge rate to C/3 rate & continue discharge.
 - v. After 108 minutes of discharge at C/3 rate, from beginning, measure and record the cell voltage.
 - vi. Again, increase the discharge rate to C/1.5 rate for 0.5s.
 - vii. Measure and record the voltage on the logger continuously & observe the voltage drop over the period of 0.5s.
 - viii. Decrease the discharge rate to C/3 rate,
 - ix. Continue discharge until cell reaches the end of discharge voltage.
 - x. Compute the dynamic resistance ($r = dV/dI$) for the steps vi – vii

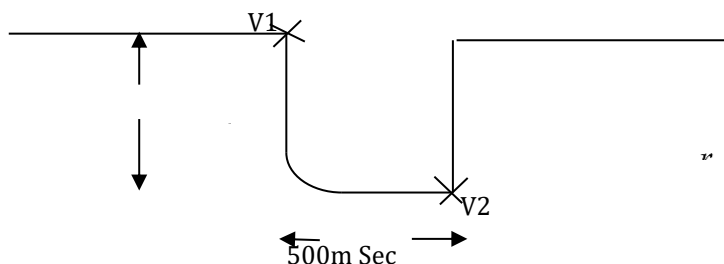


Figure 8.2: Voltage drop during dynamic performance

- j) Compute the charge & discharge capacity.
- k) Measure and record EOCr and EODr.

Acceptance criteria:

Capacity	>___ (Bidder/Vendor to specify)
EOCr	<___ (Bidder/Vendor to specify)
EODr	<___ (Bidder/Vendor to specify)

8.3. Dynamic Stress Test (DST) procedure

- Charge at C/3 rate, to maximum charge with end of taper C/30. Measure and record cell voltage, current and temperature every 10 minutes and also at the start / end of charge.
- Rest for 15 minutes.
- Discharge as per the duration and Power given in table-1, Repeat this DST profile till 80% DOD (refers to energy DOD). This completes one discharge cycle.
- Measure and record cell voltage, current and temperature every 1 second and also at the start / end of discharge during DST test.
- Charge cells @ C/3 rate to maximum charge voltage with end of taper C/30. Measure and record cell voltage, current and temperature every 10 minutes and also at the start / end of charge.
- Repeat the steps from a to e for 300 (TBC to meet 80% DoD) times. (Or till minimum voltage during DST profile reaches near minimum discharge voltage) with a break at every 50 cycles for performing capacity evaluation cycle.
- After every 50 cycles represented by steps c to f, when the end of the DST cycle is at 80% DOD discharge, Perform a capacity evaluation cycle as per section 8.5.2.

DST charge/discharge steps for cells

Description	Cell Part no. (Bidder/Vendor to specify)
C/3 rate charge (A)	___ A (Bidder/Vendor to specify)
C/30 taper charge (A)	___ A (Bidder/Vendor to specify)
C/3 rate discharge (A)	___ A (Bidder/Vendor to specify)
C/1.5 rate discharge (A)	___ A (Bidder/Vendor to specify)
EOC voltage (V)	___ V (Bidder/Vendor to specify)
EOD voltage (V)	___ V (Bidder/Vendor to specify)
Number of DST cycles to reach 80% DOD	___ (Bidder/Vendor to specify)
DST profile	DST___ (Wh to be specified by the Bidder/Vendor)

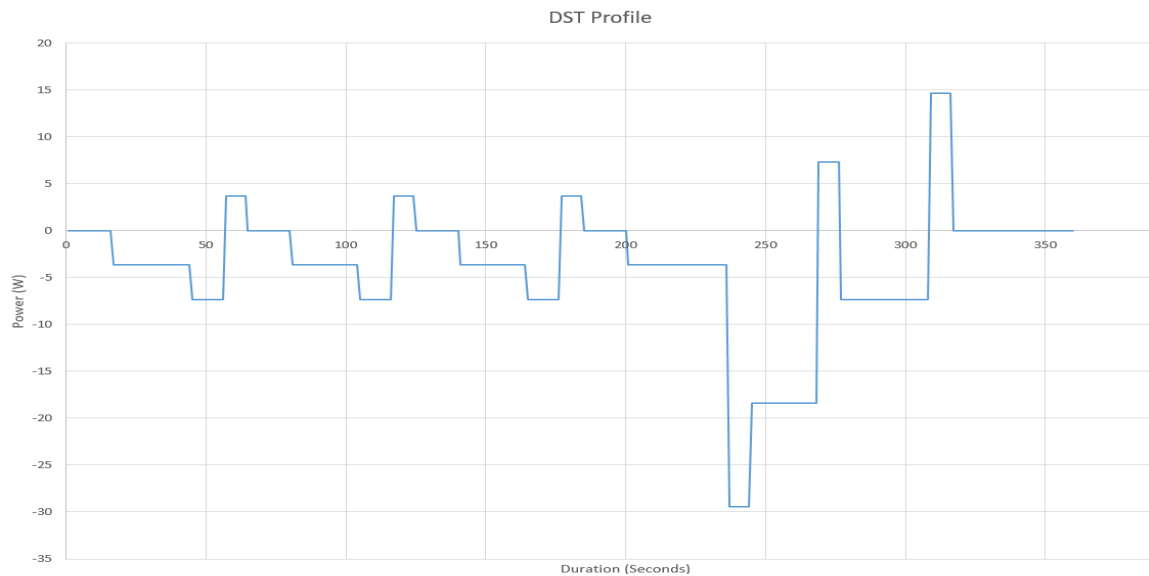


Figure 1: Typical DST profile

9 Life Tests

Life tests are carried out to prove the storage and operational life of cell/battery.

9.1. Calendar Life Test (CLT)

This test is carried out to ascertain the effect of storage under different state of charge (SoC), namely 0%, 25%, 50%, 100% on the cell with 3 sample each and battery with 1 sample each. This needs to be done for 1 year.

Bidder/Vendor needs to fill the table below:

S.no.	Cell SoC	Cell Voltage	Battery Voltage	remarks, if any
1	0%			
2	25%			
3	50%			
4	100%			

9.1.1. CLT Procedure

- i. Set chamber temperature at 50°C.
- ii. Charge at C/4 CC (constant current) rate till EOC V (0V & -0.05V)/cell. Log data every 15minutes.
- iii. Continue charge at C/100 rate till EOCV (0V & -0.05V). Log data every 15minutes and also start and end of charge.
- iv. Open cell at EOC V.
- v. Measure OCV (open circuit voltage) after 2secs. Compute EOC resistance EOCr (EOCr = (EOCV – OCV)/Charge current).
- vi. **Open circuit cell & keep in storage mode at that EOC V for period of 3**

months at temperature & EOCV corresponding to storage SoC.

a. *During storage mode NO monitoring should be done.*

vii. After every 3 months, the following **two** cycles are performed:

9.1.2. Cycle 1

- i. Connect cell/battery to the test system.
- ii. Discharge at C/2 rate in CC mode for 15mins. Log data every 2 mins.
- iii. Apply a pulse of C/2 current for 1 sec. (total current at 'C' rate)
- iv. Continue discharge at C/2 rate in CC mode till EOD V. Log data every 2 mins & also at start and end of discharge.
- v. Open circuit at EODV & measure OCV after 2 secs compute $EODr = (EODV - OCV) / \text{discharge current}$.
- vi. Measure & record capacity, energy, EODr.

9.1.3. Cycle 2

- i. Charge at C/4 rate in CC mode till EOC V as per table below. Log data every 5 mins & also at start and end of charge.
- ii. Continue charge in CV mode at EOC V till current falls to C/100 rate. Log data every 5 mins & also at start and end of taper charge.
- iii. Open cell at EOC V (as per table 14).
- iv. Measure OCV at end of 2 secs. Compute $EOCr = (EOCV - OCV) / \text{charge current}$.
- v. Discharge cell at C/2 rate in CC mode for 15mins. Log data every 2 mins.
- vi. Apply a pulse of C/2 current for 1 sec. (total current at 'C' rate)
- vii. Continue discharge at C/2 rate in CC mode till EOD V. Log data every 2 mins & also at start and end of discharge.
- viii. Open circuit at EODV & measure OCV after 2 secs compute $EODr = (EODV - OCV) / \text{discharge current}$.
- ix. Measure & record capacity, energy, EODr & EOCr.

9.1.4. Charging cells before resuming CLT

- i. Charge at C/4 rate in CC mode till EOC V corresponding to storage SoC. Log data every 5 mins & also at start and end of charge.
- ii. Continue charge in CV mode at EOC V till current falls to C/100 rate. Log data every 5 mins & also at start and end of taper charge.
- iii. Open cell at EOC V.
- iv. Measure OCV at end of 2 secs. Compute $EOCr = (EOCV - OCV) / \text{charge current}$.

Open circuit cell & keep in storage mode at that EOC V for period of 3 months at temperature & EOCV corresponding to storage SoC.

The CLT results shall be reviewed regularly.

9.2. Cycle Life Test

9.2.1. Initial capacity check & charge retention tests

Note : *The initial standard capacity check & charge retention (section 5.1 & 5.2)*

tests need to be completed on all cells/battery, prior to start of any cycling tests.

9.2.2. Charging procedure prior to cycle life tests.

1. Set chamber temperature to $50^{\circ}\text{C} \pm 2^{\circ}\text{C}$.
2. Charge at C/10 CC (constant current) rate till **EOC V** (+0V & -0.05V)/cell. Log data every 15minutes.
3. Continue charge till C/100 rate at EOCV (+0V & -0.05V). Log data every 15minutes and also start and end of charge.
4. Open cell at **EOC V** and measure OCV (open circuit voltage) after 2secs. Compute EOC resistance EOCr ($\text{EOCr} = (\text{EOCV} - \text{OCV})/\text{Charge current}$).
5. After final charging, subject the cells to accelerated time cycling tests as per table 15 & the general description of test procedure as per 8.1

9.2.3. Accelerated life cycle test (ALCT) at 50°C

1. Carry out ALCT on the cells at 50°C at 80% DoD, charge rate, discharge rates, EOC V & charge durations.
2. Set chamber temperature to $50^{\circ}\text{C} \pm 2^{\circ}\text{C}$.
3. Charge the cell in CC (constant current) mode at C/2 current and then continue in CV (constant voltage) till C/50 current is reached. Log data every 2 minutes.
4. Discharge the cell in CC (constant current) mode at C current. Log data every 1 minute and also at start and end of discharge.
5. Measure and record the capacity & energy obtained at the end of every cycle.
6. Repeat steps 2 to 5 for 3 months.
7. During discharge, if EODV reaches minimum discharge voltage, carry out step 8a & 8b of 9.2.3. After reviewing the data, test can be stopped for that particular cell.
8. After every 3 months, the following tests shall be conducted:
 - a. Continue discharge of the cell at CC (constant current) mode till EODV (+0.05V & 0V). Log data every 1 minute and also at start and end of discharge.
 - b. Stabilize the chamber temperature at 20°C for 4 hours then do the following:
 - i. Standard Capacity test @ 20°C &
 - ii. Charge retention test @ 20°C

VOLUME III

AGREEMENT: GENERAL CONDITIONS & SPECIAL CONDITIONS OF CONTRACT

Chapter 1: General Conditions of Contract

1.1 Interpretation

In this Contract unless a contrary intention is evident:

- a. The clause headings are for convenient reference only and do not form part of this Contract
- b. Unless otherwise specified a reference to a clause number is a reference to all its sub-clauses
- c. The word “include” or “including” shall be deemed to be followed by “without limitation” or “but not limited to” whether or not they are followed by such phrases
- d. Unless otherwise specified a reference to a clause, sub-clause or section is a reference to a clause, sub-clause or section of this Contract including any amendments or modifications to the same from time to time
- e. A word in the singular includes the plural and a word in the plural includes the singular
- f. A word importing a gender includes any other gender
- g. A reference to a person includes a partnership and a body corporate
- h. A reference to legislation includes legislation repealing, replacing or amending that legislation
- i. Where a word or phrase is given a particular meaning it includes the appropriate grammatical forms of that word or phrase which have corresponding meanings
- j. In the event of an inconsistency between the terms of this Contract and the RFP and the Bid, the terms hereof shall prevail. In case there is a contradiction between the sections, the below hierarchy of sections in order of precedence:
 - i. Pre-bid clarification and Corrigendum, if any
 - ii. Volume III of RFP (GCC holds precedence over SCC)
 - iii. Volume II of RFP
 - iv. Volume I of RFP
- k. If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract

- I. This Contract along with the Pre-bid clarifications, corrigendum and communications in relation to the entire tender process constitutes the entire agreement between the Authority and the Bidder/Vendor.

1.2 Conditions Precedent

This Contract is subject to the fulfilment of the following conditions precedent by Bidder/Vendor.

- a. Furnishing by Bidder/Vendor an unconditional and irrevocable Performance Bank Guarantee (PBG) acceptable to the Authority which would remain valid until such time as stipulated by the Authority
- b. Obtain all statutory and other approvals required for the performance of the Services under this Contract. This may include approvals/ clearances, wherever applicable, that may be required for execution of this Contract e.g. clearances from Government authorities for importing equipment, exemption of Tax/ Duties/ Levies, work permits/ clearances for Bidder/Vendor/ Bidder/Vendor's team, etc.
- c. Furnishing of such other documents as the Authority may specify/ demand

1.3 Key Performance Measurements

- a. Unless specified by the Authority to the contrary, Bidder/Vendor shall deliver the goods, perform the services and carry out the scope of work in accordance with the terms of this Contract, Responsibility Matrix as laid down in this RFP and best practices of the industry.
- b. The Authority reserves the right to amend any of the terms and conditions in relation to the Contract/ Service Specifications and may issue any such directions which are not necessarily stipulated therein if it deems necessary for the fulfilment of the Schedule of Requirements.

1.4 Commencement and Progress

- a. Bidder/Vendor shall subject to the fulfilment of the conditions precedent above, commence the performance of its obligations in a manner as per the Detailed Scope of Work as defined in [Volume II](#) of this RFP.
- b. Bidder/Vendor shall proceed to carry out the activities / services with diligence and expedition in accordance with any stipulation as to the time, manner, mode, and method of execution contained in this Contract.
- c. Bidder/Vendor shall be responsible for and shall ensure that all activities/ services are performed in accordance with the Contract, Scope of Work and Service

Specifications and Bidder/Vendor's all other standards, terms and other stipulations/ conditions set out hereunder or as intimated by the Authority or its representative from may from time to time.

- d. Bidder/Vendor shall perform the activities/ services and carry out its obligations under the Contract with due diligence, efficiency, and economy, in accordance with generally accepted techniques and practices used in the industry and shall observe sound management, engineering and security practices. Bidder/Vendor shall always act, in respect of any matter relating to this Contract, as faithful advisors to the Authority and shall, at all times, support and safeguard the Authority's interests in any dealings with Third parties.

1.5 Standards of Performance

Bidder/Vendor shall perform the Services and carry out its obligations under the Contract with due diligence, efficiency and economy, in accordance with generally accepted techniques and best practices used in the industry and with standards recognized by international professional bodies and shall observe sound management, engineering and security practices. It shall employ appropriate advanced technology and engineering practices and safe and effective equipment, machinery, material and methods. Bidder/Vendor shall always act, in respect of any matter relating to the Contract, as faithful advisors to the Authority and shall, at all times, support and safeguard the Authority's legitimate interests in any dealings with Third Parties.

1.6 Bidder/Vendor Obligations

- a. Bidder/Vendor's obligations shall include all the activities as specified by the Authority in the Detailed Scope of Work and other sections of the RFP and Contract and changes thereof to enable Authority to meet the objectives and operational requirements.
- b. The Authority reserves the right to review the terms of the Warranty and Comprehensive Annual Maintenance agreements if any until the expiry of this contract, entered into between Bidder/Vendor and their suppliers/ OEMs.
- c. Bidder/Vendor shall ensure that their suppliers/ OEMs provide the support and assistance to Bidder/Vendor in case of any problems / issues arising due to integration of components supplied by him with any other component(s)/ product(s) under the purview of the overall solution.
- d. Bidder/Vendor's representative(s) shall have all the powers requisite for the execution of scope of work and performance of services under this contract. Bidder/Vendor's representative(s) shall liaise with the Authority's representative for

the proper coordination and timely completion of the works and on any other matters pertaining to the works. Bidder/Vendor shall extend full co-operation to Authority's representative in the manner required by them for supervision/ inspection/ observation of the equipment/ goods/ material, procedures, performance, progress, reports and records pertaining to the works. He shall also have complete charge of Bidder/Vendor's personnel engaged in the performance of the works and to ensure compliance of rules, regulations and safety practice. He shall also cooperate with the other Service Providers/ Bidder/Vendors of the Authority working at the Authority's office locations & field locations.

- e. Bidder/Vendor shall be responsible on an ongoing basis for coordination with other Bidder/Vendors and agencies of the Authority in order to supply and install batteries at designated locations across 9 coastal states and 4 UTs.
- f. Bidder/Vendor shall not publicise or advertise the work performed under the scope of work as provided in the RFP in any paper, electronic/ digital or any other media without prior consent from NSIL.

1.7 Reporting Progress

- a. Bidder/Vendor shall monitor progress of all the activities related to the execution of this Contract and shall submit to the Authority, monthly progress reports with reference to all related work, milestones and their progress shall be outlined.
- b. Formats for all above mentioned reports and their dissemination mechanism shall be discussed and finalized along with Project Plan. The Authority on mutual agreement between both parties may change the formats, periodicity and dissemination mechanism for such reports.
- c. Periodic meetings shall be held between the representatives of the Authority and Bidder/Vendor at least once in every 15 days discuss the progress of the work.
- d. Bidder/Vendor shall ensure that the respective solution teams involved in the execution of work are part of such meetings.
- e. A Programme Monitoring Committee involving representative of the Authority and senior officials of Bidder/Vendor shall be formed for the purpose of this programme. This Committee shall have the authority to constitute smaller sub-committees to monitor specific aspects of the Programme. These committees shall meet at intervals, as decided by the Authority at the time of the committee's constitution, to oversee the progress of the implementation.
- f. All the goods, services and manpower to be provided / deployed by Bidder/Vendor under the Contract and the manner and speed of execution and maintenance of the

work and services are to be conducted in a manner to the satisfaction of Authority's representative in accordance with the Contract.

- g. The Authority reserves the right to inspect and monitor/ assess the progress/ performance of the work / services at any time during the course of the Contract. The Authority may demand and upon such demand being made, Bidder/Vendor shall provide documents, data, material or any other information which the Authority may require, to enable it to assess the progress/ performance of the work / service.
- h. At any time during the course of the Contract, the Authority shall also have the right to conduct, either itself or through another agency as it may deem fit, an audit to monitor the performance by Bidder/Vendor of its obligations/ functions in accordance with the standards committed to or required by the Authority and Bidder/Vendor undertakes to cooperate with and provide to the Authority/ any other agency appointed by the Authority, all Documents and other details as may be required by them for this purpose. Such audit shall not include Bidder/Vendor's books of accounts.
- i. Should the rate of progress of the works or any part of them at any time fall behind the stipulated time for completion or is found to be too slow to ensure completion of the works by the stipulated time, or is in deviation to Tender requirements/ standards, the Authority's representative shall so notify Bidder/Vendor in writing.
- j. Bidder/Vendor shall reply to the written notice giving details of the measures he proposes to take to expedite the progress so as to complete the works by the prescribed time or to ensure compliance to RFP requirements. Bidder/Vendor shall not be entitled to any additional payment for taking such steps. If at any time it should appear to the Authority or Authority's representative that the actual progress of work does not conform to the approved plan Bidder/Vendor shall produce at the request of the Authority's representative a revised plan showing the modification to the approved plan necessary to ensure completion of the works within the time for completion or steps initiated to ensure compliance to the stipulated requirements.
- k. The submission seeking approval by the Authority or Authority's representative of such plan shall not relieve Bidder/Vendor of any of its duties or responsibilities under the Contract.
- l. In case during execution of works, the progress falls behind schedule or does not meet the Tender requirements, Bidder/Vendor shall deploy extra manpower/ resources to make up the progress or to meet the RFP requirements. Plan for deployment of extra manpower/ resources shall be submitted to the Authority for its review and approval. All time and cost effect in this respect shall be borne, by Bidder/Vendor within the contract value.

1.8 Project Plan

- a. Within 15 calendar days of effective date of the contract/ Issuance of Lol, Bidder/Vendor shall submit to the Authority for its approval a detailed Project Plan with details of the project showing the sequence, procedure and method in which he proposes to carry out the works. The Plan so submitted by Bidder/Vendor shall conform to the requirements and timelines specified in the Contract and shall be in line with the scope of work as provided in Volume II of this RFP. The Authority and Bidder/Vendor shall discuss and agree upon the work procedures to be followed for effective execution of the works, which Bidder/Vendor intends to deploy and shall be clearly specified. The Project Plan shall include but not limited to project organization, communication structure, proposed staffing, roles and responsibilities, processes and tool sets to be used for quality assurance, security and confidentiality practices in accordance with industry best practices, Project Plan and delivery schedule in accordance with the Contract. Approval by the Authority's Representative of the Project Plan shall not relieve Bidder/Vendor of any of its duties or responsibilities under the Contract.
- b. If Bidder/Vendor's work plans necessitate a disruption/ shutdown in Authority's operation, the plan shall be mutually discussed and developed so as to keep such disruption/ shutdown to the barest unavoidable minimum. Any time and cost arising due to failure of Bidder/Vendor to develop/adhere such a work plan shall be to its account.

1.9 Statutory Requirements

During the tenure of this Contract nothing shall be done by Bidder/Vendor in contravention of any law, act and/ or rules/regulations, there under or any amendment thereof governing inter-alia customs, stowaways, foreign exchange etc. and shall keep Authority indemnified in this regard.

1.10 Authority's Obligations

- a. Authority shall nominate a representative to act as the nodal point for implementation of the contract and for issuing necessary instructions, approvals, commissioning, acceptance certificates, payments etc. to the Bidder/Vendor.
- b. Authority shall make best efforts to provide timely approval to the Bidder/Vendor as and when required, which may include approval of Project Plan, work methodology, design documents, specifications, or any other document necessary in fulfilment of this contract.
- c. The Authority's representative shall interface with Bidder/Vendor, to provide the required information, clarifications, and to resolve any issues as may arise during

the execution of the Contract. The Authority shall provide adequate cooperation in providing details, coordinating and obtaining of approvals from various governmental agencies, in cases, where the intervention of the Authority is proper and necessary.

- d. Authority may provide on Bidder/Vendor's request, particulars/ information/ or documentation that may be required by Bidder/Vendor for proper planning and execution of work and for providing services covered under this contract and for which Bidder/Vendor may have to coordinate with respective Bidder/Vendors.

1.11 Payments

- a. Subject to due completion of the work and certification by Authority/Authority's representative Authority shall make payments to Bidder/Vendor at the times and in the manner set out in the Payment schedule as specified in this RFP. Authority shall make all efforts to make payments to Bidder/Vendor within 45 days of receipt of invoice(s) and all necessary supporting documents.
- b. All payments agreed to be made by the Authority to the Bidder/Vendor in accordance with the Bid shall be inclusive of all statutory levies, duties, taxes and other charges whenever levied/applicable, if any, and Authority shall not be liable to pay any such levies/ other charges under or in relation to this Contract and/or the Services.
- c. No invoice for extra work/ change order on account of change order shall be submitted by Bidder/Vendor unless the said extra work/ change order has been authorized/ approved by the Authority in writing in accordance with Change Control Note ([Volume III section 2.9 & 2.10](#) of this RFP).
- d. In the event of Authority noticing at any time that any amount has been disbursed wrongly to Bidder/Vendor or any other amount is due from Bidder/Vendor to the Authority, the Authority may without prejudice to its rights recover such amounts by other means after notifying Bidder/Vendor or deduct such amount from any payment falling due to the Bidder/Vendor. The details of such recovery, if any, shall be intimated to the Bidder/Vendor.
- e. All payments to Bidder/Vendor shall be subject to the deductions of tax at source under Income Tax Act, and other taxes and deductions as provided for under any law, rule or regulation. All costs, damages or expenses which Authority may have paid or incurred, for which under the provisions of the Contract, Bidder/Vendor is liable, the same shall be deducted by Authority from any dues to Bidder/Vendor. All payments to Bidder/Vendor shall be made after making necessary deductions as per terms of the Contract and recoveries towards facilities, if any, provided by the

Authority to Bidder/Vendor on chargeable basis.

1.12 Taxes

- a. Bidder/Vendor shall bear all personnel taxes levied or imposed on its personnel, or any other member of Bidder/Vendor's Team, etc. on account of payment received under this Contract. Bidder/Vendor shall bear all corporate taxes, levied or imposed on Bidder/Vendor on account of payments received by it from the Authority for the work done under this Contract.
- b. Bidder/Vendor shall bear all taxes and duties etc. levied or imposed on Bidder/Vendor under the Contract including but not limited to CGST, SGST, IGST other applicable indirect taxes and all Income Tax levied under Indian Income Tax Act – 1961 or any amendment thereof during the entire contract period, i.e., on account of material supplied and services rendered and payments received by him from the Authority under the Contract. It shall be the responsibility of the Bidder/Vendor to submit to the concerned Indian authorities the returns and all other connected documents required for this purpose. The amount of tax withheld by the Authority shall at all times be in accordance with Indian Tax Law and the Authority shall promptly furnish to the Bidder/Vendor original certificates for tax deduction at source and paid to the Tax Authorities.
- c. Bidder/Vendor agrees that he shall comply with the Indian Income Tax Act in force from time to time and pay Indian Income Tax, as may be imposed/ levied on them by the Indian Income Tax Authorities, for the payments received by them for the works under the Contract
- d. Bidder/Vendor's shall fully familiarize themselves about the applicable domestic taxes (such as CGST, SGST, IGST, etc.) on amounts payable by the Authority under the Agreement. All such taxes must be included by Bidder/Vendors in the financial proposal. (Bidder/Vendor to find out applicable taxes for the components being proposed.)
- e. Should Bidder/Vendor fail to submit returns/pay taxes in times as stipulated under applicable Indian/State Tax Laws and consequently any interest or penalty is imposed by the concerned authority, Bidder/Vendor shall pay the same. Bidder/Vendor shall indemnify Authority against any and all liabilities or claims arising out of this Contract for such taxes including interest and penalty by any such Tax Authority may assess or levy against the Authority/Prime Bidder/Vendor.

- f. The Authority shall if so, required by applicable laws in force, at the time of payment, deduct income tax payable by Bidder/Vendor at the rates in force, from the amount due to Bidder/Vendor and pay to the concerned tax authority directly.

1.13 Indemnity

- a. Bidder/Vendor shall indemnify the Authority from and against any costs, loss, damages, expense, claims including those from third parties or liabilities of any kind howsoever suffered, arising or incurred inter alia during and after the Contract period out of:
 - i. any negligence or wrongful act or omission by Bidder/Vendor or any third party associated with Bidder/Vendor in connection with or incidental to this Contract; or
 - ii. any breach of any of the terms of Bidder/Vendor's bid as agreed, the RFP and this Contract by Bidder/Vendor
 - iii. any infringement of patent, trademark/copyright or industrial design rights arising from the use of the supplied goods and related services or any part thereof
- b. Bidder/Vendor shall also indemnify the Authority against any privilege, claim or assertion made by a third party with respect to right or interest in, ownership, mortgage or disposal of any asset, property etc.
- c. Regardless of anything contained (except for the Bidder/Vendor's liability for bodily injury and/ or damage to tangible and real property for which it is legally liable and it's liability for patent and copyright infringement in accordance with the terms of this Agreement) the total liability of Bidder/Vendor, is restricted to the total value of the contract and Bidder/Vendor is not responsible for any third party claims.

1.14 Warranty

- a. The Bidder/Supplier shall provide 5 years onsite comprehensive warranty support (3 years std. warranty + 2 years Extd. warranty) for the Li-ion batteries and all accessories date of acceptance of installation and commissioning of the batteries as per the requirements provided in this RFP. PBG shall be valid till the warranty period
- b. The Bidder/Vendor warrants that the Goods supplied under the Contract shall be of proven technology, new, non-refurbished, unused and recently manufactured.

- c. The Bidder/Vendor further warrants that the Goods supplied under this Contract shall be free from all encumbrances and defects/faults arising from design, material, manufacture or workmanship (except insofar as the design or material is required by the Authority's Specifications).
- d. The Authority shall promptly notify the Bidder/Vendor in writing of any claims arising under this warranty.
- e. Upon receipt of such notice, the Bidder/Vendor shall, within stipulated time, repair or replace the defective Goods or parts thereof, without prejudice to any other rights which the Authority may have against the Bidder/Vendor under the Contract.
- f. If the Bidder/Vendor, having been notified, fails to remedy the defect(s) within a reasonable period, the Authority may proceed to take such remedial action as may be necessary, at the Bidder/Vendor's risk and expense and without prejudice to any other rights which the Authority may have against the Bidder/Vendor under the Contract and/ or under Applicable Law.
- g. Any Approved Bidder/Vendors specific warranty terms that do not conform to conditions under this Contract shall not be acceptable.
- h. Service Level Agreement (SLA) will be signed with successful Bidder/Vendor, the non-SLA compliance penalty i.e., Liquidated Damages (LD) will be levied in case if the defect not resolved in the admissible period to meet contractual requirements as tabulated below to meet contractual requirements.

SN	Support for Resolution of Defect	Max. No. of Days	LD
1	Mainland Sites (Metros)	3	Exceeds 3 Days - 25% Exceeds 6 Days - 50% Exceeds 30 Days - 100%
2	Mainland Sites (Non-Metro)	5	Exceeds 5 Days- 25% Exceeds 10 Days - 50% Exceeds 30 Days - 100%
3	Island Sites	7	Exceeds 7 Days- 25% Exceeds 15 Days - 50% Exceeds 30 Days - 100%

Note: Delay not attributable to the bidder shall be considered for exclusion for the purpose of computing liquidated damages support.

1.15 Term and Extension of The Contract (Contract Period)

- a. The Contract period shall commence from the date of signing of contract or Issuance of Lol, whichever is earlier
- b. If the delay occurs due to circumstances beyond control of Bidder/Vendor such as strikes, lockouts, fire, accident, defective materials, delay in approvals or any cause whatsoever beyond the reasonable control of Bidder/Vendor, a reasonable extension of time shall be granted by the Authority.
- c. The Authority reserves the sole right to grant any extension to the term abovementioned and shall notify in writing to Bidder/Vendor, at least 1 (one) month before the expiration of the Term hereof, whether it shall grant Bidder/Vendor an extension of the Term. The decision to grant or refuse the extension shall be at the Authority's discretion and such extension of the contract, if any, shall be as per terms agreed mutually between the Authority and the Bidder/Vendor.

1.16 Dispute resolution & Applicable law

- a. This RFP and general terms & condition of the Contract shall be interpreted in construed in accordance with the Laws of India.
- b. **Negotiation:** In the event of breach of the terms of this Contract or in the event of any differences or disputes arising between the Parties in regard to this Contract or any matter relating thereto shall first be subject to resolution through consultation of the Parties to such dispute, controversy or claim. Such consultation shall begin within seven (7) days after one Party hereto has delivered to the other Parties involved a written request for such consultation.
- c. **Mediation:** If within thirty (30)days following the commencement of such consultation the dispute cannot be resolved, the same shall be first referred for Private Mediation under the **Bangalore International Mediation, Arbitration & Conciliation Centre, ("BIMACC")** Rules by appointing a BIMACC Approved Mediator and effort shall be made to ensure the disputes are resolved within 60 days from the date of first hearing by the Mediator, unless mutually agreed to be extended by all the Parties, for such extended term.
- d. **Arbitration:** If no settlement is arrived at within 60 days, or within such extended time, the Parties shall refer the dispute for Institutional Arbitration of BIMACC for appointment of a sole Arbitrator by BIMACC, under the BIMACC Rules of Arbitration. The award of the Arbitrator shall be final and binding on the Parties hereto and Arbitration shall be as per the provisions in force of the Arbitration & Conciliation Act, 1996. The Arbitration shall be conducted in English Language and the seat of Arbitration shall be in Bangalore.
- e. The decision of the arbitration tribunal shall be final, conclusive and binding on the Parties to the arbitration. Judgment may be entered on the arbitration tribunal's

decision in any court having jurisdiction. The Parties to the arbitration shall each pay an equal share of the costs and expenses of such arbitration, and each Party shall separately pay for its respective counsel fees and expenses; provided, however, that the prevailing Party in any such arbitration shall be entitled to recover from the non-prevailing Party its reasonable costs and attorney fees. The Parties acknowledge and agree that, in addition to contract damages, the arbitrators may award provisional and final equitable relief, including injunctions, specific performance, and lost profits.

1.17 Conflict of Interest

- a. Bidder/Vendor shall disclose to the Authority in writing, all actual and potential conflicts of interest that exist, arise or may arise (either for Bidder/Vendor or Bidder/Vendor's Team) in the course of performing the Services as soon as practical after it becomes aware of that conflict.

1.18 Publicity

- a. The Bidder/Vendor shall not make or permit to be made a public announcement and/ or media release about any aspect of this Contract unless the Authority first gives the Bidder/Vendor its written consent.
- b. In case the Bidder/Vendor is found to have made public announcements and/ or media releases about any aspect of this Contract without the Authority's written consent, the Authority reserves the right to apply penalties and/ or blacklist the Bidder/Vendor.

1.19 Force Majeure

- a. Force Majeure Event

As used in the Contract, Force Majeure Event means the occurrence of any of the Non-Political Events, the Political Events or the Other Events, set out in the Contract including the impact/ consequence thereof which:

- i. Is beyond the control of the Party claiming to be affected thereby (the "**Affected Party**");
 - ii. Prevents completely or partially the Affected Party from performing or discharging its obligations under the Agreement; and
 - iii. The Affected Party has been unable to overcome or prevent despite exercise of due care and diligence.
- b. Non-Political Events

Any of the following events which prevent the Affected Party from performing any

of its obligations for a continuous period of not less than 7 (seven) Days from the date of its occurrence, shall constitute a Non-Political Event:

- i. Act of God, epidemic, extremely adverse weather conditions, lightning, earthquake, cyclone, flood, volcanic eruption, chemical or radioactive contamination or ionizing radiation, fire or explosion (to the extent of contamination or radiation or fire or explosion originating from a source external to the Project Site and by reasons not attributable to the Bidder/Vendor or the Contractor or any of the employees or agents of the Bidder/Vendor or the Contractor);
 - ii. Strikes or boycotts (other than those involving the Bidder/Vendor, Contractors or their respective employees/representatives, or attributable to any act or omission of any of them), and not being an “Other Event” set forth in Volume III Section 1.28, labour disruptions or any other industrial disturbances not arising on account of the acts or omissions of the Bidder/Vendor or the Contractor;
 - iii. Any event or circumstance of a nature analogous to any of the foregoing.
- c. Political Events

Any of the following events shall constitute Political Event:

- i. Change in Law for which no relief is provided under the provisions of the Agreement, resulting in Material Adverse Effect;
- ii. Action of a Government having Material Adverse Effect including but not limited to:
 - I. Acts of expropriation, compulsory acquisition or takeover by any Government of the Project/Project Facilities and Services or any part thereof or of the Bidder/Vendors or the Contractor’s rights under any of the Project Contracts, and
 - II. Any unlawful, unauthorized or without jurisdiction refusal to issue or to renew or the revocation of any Applicable Permits, in each case, for reasons other than the Bidder/Vendor’s or the Contractor’s breach or failure in complying with the Project Requirements, Applicable Laws, Applicable Permits, any judgment or order of a Governmental Agency or of any contract by which the Bidder/Vendor or the Contractor as the case may be is bound
- iii. Early determination of the Agreement by AUTHORITY for reasons of national emergency, national security or the public interest;

- iv. Any failure or delay of a Contractor caused by any of the aforementioned Political Events, for which no offsetting compensation is payable to the Bidder/Vendor by or on behalf of the Contractor; or
- v. Any event or circumstance of a nature analogous to any of the foregoing.

d. Other Events

Any of the following events which prevents the Affected Party from performing any of its obligations under the Agreement for a continuous period of not less than 14 (fourteen) Days from the date of its occurrence, shall constitute the Other Event:

- i. An act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, riot, insurrection, terrorist or military action, civil commotion or politically motivated sabotage;
- ii. Industry wide or State-wide strikes or industrial action;
- iii. Any civil commotion, boycott or political agitation which prevents collection of Fee by the Bidder/Vendor;
- iv. Epidemics, pandemics or quarantine restrictions
- v. Any judgment or order of a court of competent jurisdiction or statutory AUTHORITY in India made against the Bidder/Vendor or the Contractor in any proceedings which is non-collusive and duly prosecuted by the Bidder/Vendor; and any judgment or order of a court of competent jurisdiction or statutory AUTHORITY in India made against the Bidder/Vendor or the Contractor in any proceedings which is non collusive and duly prosecuted by the Bidder/Vendor other than relating to proceedings
 - I. Pursuant to failure of the Bidder/Vendor to comply with any Applicable Law or Applicable Permit; or
 - II. on account of breach of any Applicable Law or Applicable Permit or of any contract; or
 - III. Enforcement of the Agreement; or
 - IV. With respect to exercise of any of its rights under the Agreement by Authority;
- vi. Any event or circumstance of a nature analogous to any of the foregoing.

e. Notice of Force Majeure Event

- i. The Affected Party shall give written notice to the other Party in writing of the occurrence of any of the Force Majeure Event (the “Notice”) as soon as the same arises or as soon as reasonably practicable and in any event within 14 (fourteen) Days after the Affected Party knew, or ought reasonably to have known, of its occurrence and the adverse effect it has or is likely to have on the performance of its obligations under the Agreement.
 - ii. The Notice shall inter-alia include full particulars of:
 - I. The nature, time of occurrence and extent of the Force Majeure Event with evidence in respect thereof;
 - II. The duration or estimated duration and the effect or probable effect which such Force Majeure Event has or will have on the Affected Party’s ability to perform its obligations or any of them under the Agreement;
 - III. The measures which the Affected Party has taken or proposes to be taken, to alleviate the impact of the Force Majeure Event or to mitigate the damage; and
 - IV. Any other relevant information.
 - iii. So long as the Affected Party continues to claim to be affected by a Force Majeure Event, it shall provide the other Party with periodic (fortnightly/monthly) written reports containing the information called for by Section above and such other information as the other Party may reasonably request.
- f. Performance of Obligations
- i. If the Bidder/Vendor is rendered wholly or partially unable to perform any of its obligations under the Agreement because of a Force Majeure Event, it shall be excused from performance of such obligations to the extent it is unable to perform the same on account of such Force Majeure Event provided that:
 - I. Due notice of the Force Majeure Event has been given to Authority as required by the preceding Article
 - II. The excuse from performance shall be of no greater scope and of no longer duration than is necessitated by the Force Majeure Event
 - III. The Bidder/Vendor has taken all reasonable efforts to avoid, prevent, mitigate and limit damage, if any, caused or is likely to be caused to the Property/Project Asset/Project Facilities as a result of the Force Majeure Event and to restore the Property/Project Asset/Project Facilities, in

accordance with the Good Industry Practice and its relative obligations under the Agreement

- IV. When the Bidder/Vendor is able to resume performance of its obligations under the Agreement, it shall give to the other Party written notice to that effect and shall promptly resume performance of its obligations hereunder, the non-issue of such notice being no excuse for any delay for resuming such performance;
- V. The Bidder/Vendor shall continue to perform such of its obligations which are not affected by the Force Majeure Event and which are capable of being performed in accordance with the Agreement;
- VI. Any insurance proceeds received shall be entirely applied to repair, replace or restore the assets damaged on account of the Force Majeure Event, in accordance with Good Industry Practice, unless otherwise agreed to by Authority.

1.20 Delivery

- a. Bidder/Vendor shall bear the cost for packing, transport, insurance, storage, Installation and delivery of all the deliverables at all locations identified by the Authority and as per the scope of work and the delivery schedule.
- b. The Goods and manpower supplied under this Contract shall conform to the standards mentioned in the RFP, and, when no applicable standard is mentioned, to the authoritative standards; such standard shall be approved by Authority.

1.21 Insurance and others

- a. The Goods supplied under this Contract shall be comprehensively insured by Bidder/Vendor at its own cost, against any loss or damage, for the entire period of the contract. Bidder/Vendor shall submit to the Authority, documentary evidence issued by the insurance company, indicating that such insurance has been taken.
- b. The Bidder/Vendor shall bear all the statutory levies like customs, insurance, freight, etc. applicable on the goods and also the charges like transportation charges, octroi, etc. that may be applicable till the goods are delivered at the respective sites of installation.
- c. The Bidder/Vendor shall take out and maintain at its own cost, on terms and conditions approved by the Authority, insurance against the risks, and for the coverages, as specified below:
 - i. At the Authority's request, shall provide evidence to the Authority showing that such insurance has been taken out and maintained and that the current premiums therefor have been paid.

- ii. Employer's liability and workers' compensation insurance in respect of the Personnel of the Company, in accordance with the relevant provisions of the Applicable Law, as well as, with respect to such Personnel, any such life, health, accident, travel or other insurance as may be appropriate
- iii. insurance in respect of the Personnel of the Company, in accordance with the relevant provisions of the Applicable Law, as well as, with respect to such Personnel, any such life, health, accident, travel or other insurance as may be appropriate

1.22 Exit management plan

- a. An Exit Management plan shall be furnished by the Bidder/Vendor in writing to the Authority within 30 days from the date of signing the Contract, which shall deal with at least the following aspects of exit management in relation to the contract as a whole and in relation to the Project Implementation, and Delivery Schedule monitoring.
 - i. A detailed program of the transfer process to ensure continuing provision of the services throughout the transfer process or until the cessation of the services and of the management structure to be used during the transfer;
 - ii. Exit Management plan in case of normal termination of Contract period
 - iii. Exit Management plan in case of any eventuality due to which Project is terminated before the contract period.
 - iv. Exit Management plan in case of termination of Bidder/Vendor
 - v. A representative of the Authority shall certify that all necessary tests have been successfully carried out and the Project is completed as per the standards and specifications mentioned in Volume II of the RFP
- b. Exit Management plan at the minimum adhere to the following:
 - i. Complete handover of the Planning documents, bill of materials, functional requirements specification, technical specifications of all equipment, change requests if any, sources codes, wherever applicable, reports, documents and other relevant items to the Independent Engineer/ Authority
- c. In the event of termination or expiry of the contract, Project Implementation, or Delivery Schedule monitoring, both Bidder/Vendor and Authority shall comply with the Exit Management Plan.
- d. During the exit management period, Bidder/Vendor shall use its best efforts to deliver the services.

Chapter 2: Special Conditions of Contract

2.1 Performance Bank Guarantee (Performance Security)

- a. Bidder/Vendor shall furnish Performance Bank Guarantee to the Authority at the time of signing the Contract which shall be equal to 10% of the value of the Contract and shall be in the form of a Bank Guarantee from a Nationalized/ Scheduled Bank in the Proforma given in the RFP within 15 days after issuance of letter of intent (LOI) or Letter of Award (LoA) which would be valid up to a period of six months after the contract period.

2.2 Liquidated Damages

- a. If the Bidder/Vendor fails to carry out the work laid out in the scope of work of any or all of the goods as per the contract, within the time period(s) as specified in the this RFP, the Authority without prejudice to its other rights and remedies under the Contract, deduct from the Contract price, as liquidated damages, a sum equivalent to 0.5 % per week or part thereof for the pending deliverable and/or installation cost.
- b. The deduction shall not in any case exceed 10% of the contract value.
- c. The Authority may without prejudice to its right to effect recovery by any other method, deduct the amount of liquidated damages from any money due to the Bidder/Vendor (which includes the Authority's right to claim such amount against Bidder/Vendor Bank Guarantee) or which may become due to Bidder/Vendor. Any such recovery or liquidated damages shall not in any way relieve the Bidder/Vendor from any of its obligations to complete the Work or from any other obligations and liabilities under the Contract.
- d. Delay not attributable to the Bidder/Vendor shall be considered for exclusion for the purpose of computing liquidated damages.

2.3 Risk Purchase Clause

If the Bidder/Vendor fails to deliver the whole or any part of the goods or services within the stipulated delivery period mentioned in the Purchase order/ contract/ workorder, NSIL shall be entitled to terminate the contract and to purchase the same or “ the best and the nearest available substitute” from elsewhere at the risk and cost of the seller either the whole or any part of the goods/ services. In case of deviation or non-acceptance of Risk purchase clause, the offer/ order shall be liable for rejection. Risk & Cost Amount payable by Supplier or recoveries in-lieu of Risk Purchase may be recovered from the Bidder/Vendor by encashing/invoking Bank Guarantee, Security Deposits available with NSIL against the same or any other contract or may be adjusted against dues payable to the Bidder/Vendor by NSIL against other any purchase orders/contracts/work orders etc. of NSIL.

2.4 Limitation of Liability

- a. Limitation of Liability:
- i. Neither Party shall be liable to the other Party for any indirect or consequential loss or damage (including loss of revenue and profits) arising out of or relating to the Contract.
 - ii. Except in case of gross negligence or wilful misconduct on the part of Bidder/Vendor or on the part of any person or company acting on behalf of Bidder/Vendor in carrying out the Services, the Bidder/Vendor shall not be liable to Authority with respect to damage caused by Bidder/Vendor to Authority's property for an amount exceeding the amount specified in clause iv herein below,:
 - iii. For any indirect or consequential loss or damage; and
 - iv. For any direct loss or damage that exceeds (A) the total payments payable under the Contract to Bidder/Vendor hereunder, or (B) the proceeds Bidder/Vendor may be entitled to receive from any insurance maintained by Bidder/Vendor to cover such a liability, whichever of (A) or (B) is higher.
 - v. This limitation of liability shall not affect the Bidder/Vendor liability, if any, for damage to Third Parties caused by the Bidder/Vendor or any person or company acting on behalf of the Bidder/Vendor in carrying out the Services.

2.5 Security & Safety

- a. The Bidder/Vendor shall comply with the directions issued from time to time by the Authority and the standards related to the security and safety, in so far as it applies to the provision of the Services.
- b. The Bidder/Vendor shall upon reasonable request by the Authority, or its nominee(s) participate in regular meetings when safety and information technology security matters are reviewed.

2.6 Confidentiality

- a. The Bidder/Vendor shall not, either during the term or after expiration of this Contract, disclose any proprietary or confidential information relating to the Services/ Contract and/ or Authority's business/ operations, information, Application/ software, hardware, business data, architecture schematics, designs, storage media and other information/ documents without the prior written consent of the Authority.
- b. The Authority reserves the right to initiate legal proceedings, civil or criminal, against the Bidder/Vendor in relation to a dispute arising out of breach of obligation by the Bidder/Vendor under this clause.
- c. The Bidder/Vendor shall do everything reasonably possible to preserve the confidentiality of the Confidential Information.
- d. The Bidder/Vendor shall notify the Authority promptly if it is aware of any disclosure of the Confidential Information otherwise than as permitted by the Contract or with the

authority of the Authority.

- e. The Bidder/Vendor shall be liable to fully compensate the Authority for any loss whether monetary or otherwise from breach of confidentiality.

2.7 Events of default by the Bidder/Vendor

The failure on the part of Bidder/Vendor to perform any of its obligations or comply with any of the terms of this Contract shall constitute an Event of Default on the part of the Bidder/Vendor.

The events of default are but not limited to:

- a. The Bidder/Vendor/ Bidder/Vendor's Team has failed to perform any instructions or directives issued by the Authority which it deems proper and necessary to execute the scope of work or provide services under the Contract, or
- b. Bidder/Vendor / Bidder/Vendor's Team has failed to confirm / adhere to any of the key performance indicators as laid down in the Key Performance Measures/ Delivery Schedule, or if Bidder/Vendor has fallen short of matching such standards/ benchmarks/ targets as the Authority may have designated with respect to the system or any goods, task or service, necessary for the execution of the scope of work and performance of services under this Contract. The above- mentioned failure on the part of Bidder/Vendor may be in terms of failure to adhere to performance, quality, timelines, specifications, requirements or any other criteria as defined by the Authority;
- c. Bidder/Vendor has failed to remedy a defect or failure to perform its obligations in accordance with the specifications issued by the Authority, despite being served with a default notice which laid down the specific deviance on the part of Bidder/Vendor / Bidder/Vendor's Team to comply with any stipulations or standards as laid down by the Authority; or
- d. Bidder/Vendor / Bidder/Vendor's Team has failed to adhere to any amended direction, instruction, modification or clarification as issued by the Authority during the term of this Contract and which the Authority deems proper and necessary for the execution of the scope of work under this Contract
- e. Bidder/Vendor / Bidder/Vendor's Team has failed to demonstrate or sustain any representation or warranty made by it in this Contract, with respect to any of the terms of its Bid, the RFP and this Contract
- f. There is a proceeding for bankruptcy, insolvency, winding up or there is an appointment of receiver, liquidator, assignee, or similar official against or in relation to Bidder/Vendor.
- g. Bidder/Vendor/ Bidder/Vendor's Team has failed to comply with or is in breach or contravention of any applicable laws.

Where there has been an occurrence of such defaults inter alia as stated above, the Authority shall issue a notice of default to Bidder/Vendor, setting out specific defaults/ deviances/ omissions/ non-compliances/ non-performances and providing a notice of thirty (30) days to enable such defaulting party to remedy the default committed.

Where despite the issuance of a default notice to Bidder/Vendor by the Authority, the Bidder/Vendor fails to remedy the default within the cure period specified above to the satisfaction of the Authority, the Authority may, where it deems fit, extend the cure period or terminate the contract forthwith by issuing a termination notice.

2.8 Termination

Under normal circumstances, termination/ short closing of the contract to be entered into with the Bidder/Vendor, pursuant to acceptance by the Authority of its offer following the issue of RFP, is not foreseen. However, the Authority, reserves the right to terminate the Contract in whole or part by giving ninety (90) days prior written notice in the following circumstances.

- a. Due to repeated or material non-performance in the execution of contract so entered into;
- b. If the Bidder/Vendor fails to deliver/ meet the requirements of Authority within the stipulated delivery schedule (and extension, if any granted by the Authority) thereof;
- c. If the Bidder/Vendor fails to honour the whole or any part of the contract to be entered into including failure to deliver/ meet the requirements of Authority within the stipulated time as per the contract;
- d. If the Bidder/Vendor is found to have made any false or fraudulent declaration or statement in the offer made following the issue of RFP, to obtain the contract or the Bidder/Vendor is found to be indulging in unethical or unfair trade practices;
- e. If the Bidder/Vendor is found to have been engaged in unethical and incorrect practices
- f. If the Bidder/Vendor is subject to a proceeding for insolvency which is admitted and no stay of such order is obtained within a period of one month.
- g. Bidder/Vendor fails to comply with the Delivery Schedule specified in this RFP
- h. When both the parties agree mutually for termination
- i. Any special circumstances, which in the sole discretion of the Authority justifies the termination of contract, such as infringement of Intellectual Property Rights, failure to comply with confidentiality obligations, or failure to comply with security related directions and/ or guidelines etc.

Without Fault of the Bidder/Vendor

- a. The Authority may in its sole discretion terminate this Contract without assigning any reason or default of the Bidder/Vendor.
- b. In the case of termination of the Contract by the Authority without any fault of the Bidder/Vendor, the Bidder/Vendor shall, on receipt of the Authority's instructions, forthwith take the necessary steps to implement them. The period to be allowed to implement them shall be fixed by the Authority after discussion with the Bidder/Vendor and, in general, but shall not exceed ninety (90) days.
- c. Subject to the Bidder/Vendor conforming with the instructions, Authority shall take over from the Bidder/Vendor at a fair and reasonable price all finished parts not yet delivered to the Authority, all unused and undamaged material, bought-out components and articles in course of manufacture in the possession of the Bidder/Vendor and property obtained by or supplied to the Bidder/Vendor for the performance of the contract, except such material, bought-out components and articles in course of manufacture as the Bidder/Vendor shall elect to retain, with the written consent of the Authority.
- d. The Authority will agree to indemnify the Bidder/Vendor against such part of any loss of profit as is proven to be attributable to the cancellation of the contract to be entered into and against any damage resulting from the cancellation of such contract, in particular against any commitment, liabilities or expenditure which are reasonably and properly chargeable by the Bidder/Vendor and are related to such contract, in so far as the said commitments, liabilities or expenditure would otherwise represent an unavoidable loss to the Bidder/Vendor by reason of the cancellation of the contract to be entered into.
- e. The amount of compensation payable shall be fixed on the basis of evidence produced by the Bidder/Vendor and accepted by the Authority, which will be binding on the Bidder/Vendor.
- f. The Authority shall in no circumstances be liable to pay any sum which, when added to the other sums paid, due or becoming due to the Bidder/Vendor under the contract to be entered into, exceeds the total payment for the work set forth in the contract.
- g. The ownership of all materials, parts and unfinished work paid for by the Authority under the provisions of this paragraph shall be vested in or transferred to the Authority as soon as they have been paid for.

With fault of the Bidder/Vendor:

- a. The Authority reserves the right, after full consideration of all relevant circumstances, including the observations of the Bidder/Vendor, to cancel a

contract in any of the following circumstances.

- i. In the event of the Bidder/Vendor's failure to meet:
 - I. The Technical requirements of the contract and Project; and
 - II. The Progress and/or delivery requirements of the Project.
- b. If the Bidder/Vendor has not observed the provisions set out in concerning the disclosure and use of information provided by the Authority;
- c. If the Bidder/Vendor transfers its contract to be entered into pursuant to acceptance of its offer following the issue of RFP without the Authority's prior written authorization or concludes sub-contracts against the Authority's explicit directive; and
- d. In the event the Bidder/Vendor repudiates the contract or fails to dispatch or deliver all or part of the goods ordered for reasons other than those proven to be owing to the Authority's actions, the Authority may, by giving an appropriate notice in writing to the Bidder/Vendor, fix a Date of Essence by which the Bidder/Vendor must complete the dispatch in full. If the Bidder/Vendor fails to do so, Authority, in addition to its right to recover liquidated damages in terms of the contract to be entered into, shall also have the right to cancel such contract and make substitute risk purchases from other sources at the cost of the Bidder/Vendor. If the goods are in a partial state of fabrication, Authority may have the fabrication completed by other means, in which event the Bidder/Vendor shall be liable to Authority for the additional expenses incurred by Authority thereby, and the Bidder/Vendor shall not have any claim on savings, if any, in such cases.
- e. In the event of such cancellation, Authority shall, unless otherwise specified in the contract, only pay:
 - i. The contractual value of items delivered and accepted under the contract before receipt of notification of cancellation, or to be accepted under the special conditions of cancellation.
 - ii. A fair and reasonable price in respect of such work as has been carried out prior to the receipt of notification of cancellation by the Bidder/Vendor.
- f. In case of cancellation due to the fault of the Bidder/Vendor, AUTHORITY may, at its option and without prejudice to its right of claiming compensation for damage other than the damage already covered by the provision of sub-paragraphs i, ii and iii below:

- i. Have the work performed in its own establishments, in which case, the Bidder/Vendor shall be charged with all additional costs arising out of this action and the Bidder/Vendor shall, in addition, pay compensation in accordance with the scale referred to in the agreement, for each week the work is not completed after the delivery date laid down in the contract.
- ii. Have the work performed by way of a replacement contract with a third party, in which case, the Bidder/Vendor shall be charged with the additional costs arising out of this action and the Bidder/Vendor shall, in addition, pay compensation in accordance with the scale referred in the contract to be entered into, running from the delivery date laid down in the contract up to the delivery date stipulated in the replacement contract.
- iii. Have the work terminated, in which case the Authority shall be entitled to full compensation for the damage caused due to lack of delivery. However, the contract may stipulate that this damage may be liquidated by an amount as specified in the contract.

The damages already due under the provisions of the Contract to be entered into before cancellation of the Contract will remain payable, but such amount shall be deducted from the compensation due under the provision's clause. In the case referred to in sub-points (a) and (b) above, and in order to ensure completion of the supply of the goods and/or services under the Project, the Bidder/Vendor in default shall, where the use of intellectual property rights is required, do everything in its power to enable the new Party or Authority to use the rights concerned. The Bidder/Vendor in default shall make no claim in respect of such use and shall bear the cost of the fees due to third parties for the use of their rights.

2.9 Consequence of Termination

- a. In the event of termination of the Contract due to any reason the Authority shall be entitled to impose any such obligations and conditions and issue any clarifications as may be necessary to ensure an efficient transition and effective business continuity of the project which Bidder/Vendor shall be obliged to comply with and take all available steps to minimize loss resulting from that termination/ breach, and further allow and provide all such assistance to the Authority and/ or the successor agency/ service provider, as may be required, to take over the obligations of the Bidder/Vendor in relation to the execution/ continued execution of the requirements of the Contract.
- b. Where the termination of the Contract is prior to its stipulated term on account of a Default on the part of the Bidder/Vendor or due to the fact that the survival of the Bidder/Vendor as an independent corporate entity is threatened/ has ceased,

or for any other reason, whatsoever, the Authority, through unilateral re-determination of the consideration payable to the Bidder/Vendor, shall pay the Bidder/Vendor for that part of the Services which have been authorized by the Authority and satisfactorily performed by the Bidder/Vendor up to the date of termination. Without prejudice to any other rights, the Authority may retain such amounts from the payment due and payable by the Authority to the Bidder/Vendor as may be required to offset any losses caused to the Authority as a result of any act/ omissions of the Bidder/Vendor. In case of any loss or damage due to the default on the part of the Bidder/Vendor in performing any of its obligations with regard to executing the Schedule of Requirements under the Contract, the Bidder/Vendor shall compensate the Authority for any such loss, damages or other costs, incurred by the Authority. Additionally, members of its team shall perform all its obligations and responsibilities under the Contract in an identical manner as were being performed before the collapse of Bidder/Vendor as described above in order to execute an effective transition and to maintain business continuity. All third parties shall continue to perform all/ any functions as stipulated by the Authority and as may be proper and necessary to execute the Schedule of Requirements under the Contract in terms of Bidder/Vendor's Bid, the Bid Document and the Contract

- c. Nothing herein shall restrict the right of the Authority to invoke the Bank Guarantee and other Guarantees furnished hereunder and pursue such other rights and/ or remedies that may be available to the Authority under law except in a case, where the services are terminated due to force majeure.
- d. The termination hereof shall not affect any accrued right or liability of either Party nor affect the operation of the provisions of the Contract that are expressly or by implication intended to come into or continue in force on or after such termination.

2.10 Defect Liability after Termination

The Bidder/Vendor shall be responsible for all defects and deficiencies in the Project for a period of 180 (One hundred and eighty) days after Termination, and it shall have the obligation to repair or rectify, at its own cost, all defects and deficiencies observed by the Authority in the Project during the aforesaid period. In the event that the Bidder/Vendor fails to repair or rectify such defect or deficiency within a period of 15 (fifteen) days from the date of notice issued by the Authority in this behalf, the Authority shall be entitled to get the same repaired or rectified at the Bidder/Vendor's risk and cost

so as to make the delivered systems conform to the technical requirements that shall be provided at the time of signing of the contract.

2.11 Change Control

- a. This applies to and describes the procedure to be followed in the event of any proposed change to contract, implementation plan, and Delivery Schedule.
- b. The change shall be notified using the Change Control Note (CCN) which is indicated in this RFP.
- c. Change requests in respect of the contract, implementation plan, or the Delivery Schedule shall emanate from the Bidder/Vendor's representative who shall be responsible for obtaining approval for the change and who shall act as its sponsor throughout the Change Control Process.
- d. The Bidder/Vendor's representative shall complete Part A of the CCN. CCNs shall be presented to the other Party's representative who shall acknowledge receipt by signature of the authorized representative of the Authority.
- e. The Bidder/Vendor and the Authority while preparing the CCN, shall consider the change in the context of whether the change is beyond the scope of Services including ancillary and concomitant services required
- f. The CCN shall be applicable for the items which are beyond the stated/ implied scope of work as per the RFP document.
- g. Bidder/Vendor shall assess the CCN and complete Part B of the CCN. In completing Part B of the CCN Bidder/Vendor shall provide as a minimum:
 - i. a description of the change;
 - ii. a list of deliverables required for implementing the change;
 - iii. a timetable for implementation;
 - iv. an estimate of any proposed change;
 - v. any relevant acceptance criteria;
 - vi. an assessment of the value of the proposed change;
 - vii. Material evidence to prove that the proposed change is not already covered within the scope of the RFP, Agreement and Delivery Schedule.
- h. Prior to submission of the completed CCN to the Authority or its nominated agencies, Bidder/Vendor shall undertake its own internal review of the proposal and obtain all necessary internal approvals. As a part of this internal review

process, Bidder/Vendor shall consider the materiality of the proposed change in the context of the Agreement, the sites, Delivery Schedule affected by the change and the total effect that may arise from implementation of the change.

2.12 Change Control Note

Change Control Note	CCN Number:
Part A: Initiation	
Title:	
Originator:	
Sponsor:	
Date of Initiation:	
Details of Proposed Change	
(To include reason for change and appropriate details/specifications. Identify any attachments as A1, A2, and A3 etc.)	
Authorized by Authority	Date:
Name:	
Signature:	
Received by the Bidder/Vendor	Date:
Name:	
Signature:	

Change Control Note	CCN Number:
Part B: Evaluation	
(Identify any attachments as B1, B2, and B3 etc.) Changes to Services, payment terms, payment profile, documentation, training, Delivery Schedule and component working arrangements and any other contractual issue.	
Brief Description of Solution:	
Impact:	

Deliverables:	
Timetable:	
Charges for Implementation: (including a schedule of payments)	
Other Relevant Information: (including value-added and acceptance criteria)	
Authorized by the Bidder/Vendor	Date:
Name:	
Signature:	
Change Control Note	CCN Number:
Part C: Authority to Proceed	
Implementation of this CCN as submitted in Part A, in accordance with Part B is: (tick as appropriate)	
Approved	
Rejected	
Requires Further Information (as follows, or as Attachment 1 etc.)	
For Authority and its nominated agencies	For Bidder/Vendor
Signature	Signature
Name	Name
Title	Title
Date	Date