
 <p>राष्ट्रीय समुद्र प्रौद्योगिकी संस्थान NATIONAL INSTITUTE OF OCEAN TECHNOLOGY</p>	<p>संविदा आमंत्रण सूचना(नि.आ.सू.) NOTICE INVITING TENDER (NIT)</p> <p>फार्म संख्या: NIOT/S&P/NIT Form No.</p>	
GEM-Tender Schedule		
निविदा संख्या/ Tender No.	NIOT/S&P/DSM/25803/2025-26	
कोजारी Issued To	Customized Rechargeable Battery Pack with Charger Unit	
निविदाप्रणाली/Tender Mode	GEM – Custom Bid - (Dual Packet Bid)	
बोली का प्रकार एवं निविदा प्रस्तुतिकरण Bidding Type & Tender submission	Dual Part Tender comprising of Technical Bid and Price Bid should be submitted electronically through GeM portal https://gem.gov.in	
विविदा प्रलेख उपलब्धता स्थान Tender Documents available place	Bidders may download the help documents. Helpdesk number : Number: 1800-419-3436 E-Mail: helpdesk-gem@gov.in For any issues / clarifications relating to the tender(s) published kindly contact the respective Tender Inviting Authority.	
अपने प्रश्न ई मेल आईडी पर भेजें Send your queries to the email IDs	निविदा के अंतिम चरण तक/Upto Tender finalisations	gopalakrishnaa.niot@gov.in ppgfollowup@niot.res.in

राष्ट्रीय समुद्र प्रौद्योगिकी संस्थान NATIONAL INSTITUTE OF OCEAN TECHNOLOGY
वेलचरी ताम्बरम मेन रोड VELACHERY TAMBARAM MAIN ROAD
नारायण पुरम, चेन्नै 600 100 NARAYANPURAM, CHENNAI 600 100
 रा.स.प्रौ.सं. वेबसाइट/NIOT Website : <https://niot.res.in/conmgmt/signin.php>

Commercial Terms Compliance sheet (The format should not be altered)

Sl. No	Particulars	Yes	No	offer Page Ref
1	Whether every page of the tender document is signed for acceptance of tender and uploaded along with the offer?			
2	Whether Taxes and duties are shown separately in the quote. (Registration numbers for claiming the same to be strictly indicated)			
3	Whether accepted to submit the order acceptance within 7 days from the date of order?			
4	Whether Quote is valid for 120 days from the due date of tender or time specified in the tender document whichever is later?			
5	Whether payment terms of the tender is complied with?			
6	Whether the bidder satisfies the Pre- qualification criteria			
	a. a copy of your GST Registration certificates and PAN details are attached (Mandatory qualifying condition)			
	b. Supplier should have previous experience in supply of similar items to recognized institutions. (Mandatory qualifying condition)			
7	a. The Goods / items quoted are manufactured in India and not imported from any country.			
	b. Make in India Clause: If the item/goods are partially imported, specify your category:			
	1. CLASS I Category: Supplier or service provider, whose goods, services or works offered for procurement, has local content greater than or equal to 50%.			
	2. CLASS II Category: Supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%.			
8	Whether self certification form is enclosed (For Class I & Class II supplier only)?			
9	Whether price is FOR /DAP, NIOT Chennai?			
10	Whether the freight cost is included, if not included whether the freight cost is indicated separately?			
11	Whether the authorization letter exclusively for this tender, from the original manufacturer is enclosed?			
12	a) Whether warranty period accepted as per tender?			
	b) Whether submission of warranty certificate in the prescribed format is acceptable?			
13	Whether the delivery period is clearly indicated, and is as per tender?			
14	Whether the cost of installation / inspection / testing explicitly mentioned in the quote?			
15	Whether Past track record of quality and service is enclosed?			
16	Whether list of deliverables attached and comply as per tender?			
17	Whether liquidated damage clause is acceptable in case of delayed supply?			
18	Whether the tender is fully complying with tender specification/Adjustment if no, list out deviations very clearly along with the appropriate reason for the deviation?			
19	Whether item-wise price is quoted as per price bid and quoted price is realistic?			
20	Whether technical specification has been duly filled in and submitted with the tender document is uploaded along with the quotation.			
21	Whether HSN code of the product has been indicated?			
22	Whether your firm is registered under MSME/ NSIC/DIC/UAM? If yes enclose copy of registration			

PRICE BID FORMAT

S.No.	Description	Quantity	Unit	Unit rate	Amount
1.	Customised Rechargeable Battery Pack with Charger Unit.	1	No.	<i>Price has to be quoted in the price bid only and shall not be revealed here. If revealed here the quotation shall not be considered for evaluation</i>	
Total Amount				XXXXXXXXXXXXXXXXXX	
(Amount in words.(XXXXXXXXXXXXXXXXXXXXXXXX))					

Note:

*The goods items quoted are manufactured in India and not imported from any country.*

*** For Supply**

The GST as applicable will be paid.

For Service

GST @ 18% is applicable.

NIOT has enrolled under GST in the category "Tax Deductor". The bidders are requested to update their database regarding NIOT's Registration under GST-Tax Deductor. (See clause No.51 II (c))

TDS @ 2% on the order value towards GST will be deducted on payments made to the supplier in respect of goods and/or services, supplied/provided if the value exceeds Rs. 2.5 lakhs.

1. The copy of the GST registration certificate to be attached.
2. The duly filled technical and commercial compliance sheets should be submitted along with quotation/offer.

We agree to all applicable terms and conditions listed in the tender document.

Signature with Seal

TECHNICAL SPECIFICATIONS FOR CUSTOMISED RECHARGEABLE BATTERY PACK

1.0 Pre-Qualification Criteria

Sl.no	Pre-Qualification terms	Yes/No/ Remarks
1.1	<p>The supplier/Vendor should have a minimum of 3 years of experience in the supply of Rechargeable battery packs to the Automobile Industries/R&D Institutions/Aerospace/and (or) Government sectors for common and specialized applications.</p> <p>** No Exemption in Pre qualification criteria for MSE'S**</p> <p>Since,</p> <p><i>The intended battery pack is a critical component of the submersible, designed to provide seamless power supply to the onboard Data Acquisition and Control (DAC) system and telemetry units. These systems are essential for establishing real-time communication between the submersible and the mother vessel, thereby ensuring smooth and safe operation.</i></p> <p><i>Given the critical nature of this application, it is proposed to procure or get the battery pack manufactured by an experienced vendor with a proven track record in supplying similar high-reliability products. This approach will help ensure the required performance and reliability for deep-sea operations.</i></p>	
1.2	<p>The Supplier should be willing to accept all NIOT terms mentioned in the terms and conditions as enclosed in the tender enquiry.</p>	

2.0 Technical Specifications

S.NO	Specification Description	NIOT Requirement	YES	No	Remarks
I.	Battery Pack with Battery Management System (BMS)	<ul style="list-style-type: none"> a) The Battery Pack (including casing and handle), along with the integrated Battery Management System (BMS), shall be designed in accordance with the configuration depicted in Figure 1. b) The design must ensure proper housing for the battery cells, efficient heat dissipation, safe wiring layout, and accessibility for maintenance. c) The casing should be rugged and capable of withstanding operational handling in road transit. d) The handle should be placed on either disk face of the cylindrical/equivalent-shaped battery pack for ease of insertion/removal inside the pressure-rated enclosure. e) It should be designed to fit within a 600-bar pressure-rated enclosure (refer Figure 2). The design must ensure compatibility with the enclosure's internal dimensions and optimize the use of available space for maximum battery capacity. f) The battery pack is to be assembled exclusively using cells identified as "quarantine cells" based on the manufacturer's internal screening and classification procedures. Necessary documents to be submitted to NIOT for proof verification. g) The cells used for the battery pack fabrication/assembly must be from recent manufacturing batch, should be within 3 month. h) The battery pack should be constructed using branded& Proven cells like LG/Molicel/Samsung/Kokam/ EAS Batteries/ Altairnano/ Toshiba/ Electroveya/ Blue Solutions/Saft.to ensure reliable performance and safely 			
1.	Battery Type	Lithium Ion Rechargeable			
2.	Output Voltage required at Nominal load	24 V DC			

3.	Battery Capacity	≥ 500 Ah			
4.	Continuous Current @ 24VDC	≥ 30 A			
5.	Pulsating Current	≥ 60 A (5 sec)			
6.	Essential Protection and Features in BMS	BMS shall provide the following Protection Features: <ol style="list-style-type: none"> 1. High-Voltage Cut-off Protection (Over-Charge) 2. Low-Voltage Cut-off Protection (Lower-Discharge) 3. Overload Protection 4. Internal/external Short Circuit 5. Reverse Protection and Over Temperature Protection 6. State of Charge Monitoring (Status & Fault Codes) 7. Necessary Test Standard to be followed to test and qualify the BMS Units. 8. Surge Current Protection 			
7.	BMS Placement / Interface &Operational Features	<ol style="list-style-type: none"> 1. A suitable/appropriate BMS unit must be placed inside the Battery Pack at the accessible endpoint. 2. To isolate the BMS when the battery is not in use, a power switch should be provided at the accessible point 3. Before shutting down, ensure that all relevant data is properly saved to the BMS's SD card or internal memory to maintain data integrity when the system is powered on again. 			
8.	User Interface with BMS	RS232 ports required -2 Nos. <ol style="list-style-type: none"> 1. One no. of RS-232serial communication required for monitoring battery parameters during charging and discharging purposes. Necessary GUI software should be provided to interface with a compatible Windows OS PC. 			

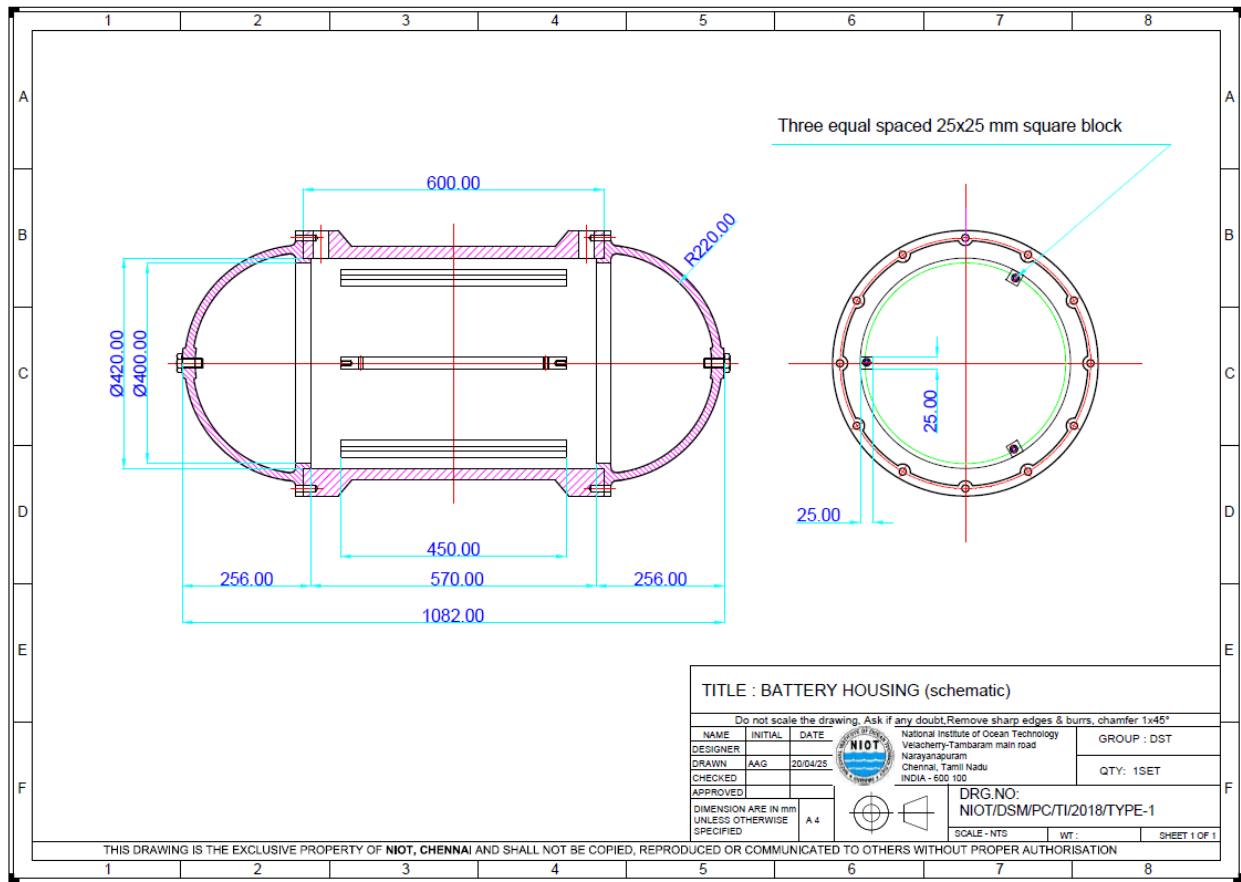
		2. One no. of RS-232 serial communication to monitor BMS Output Parameters for User Interface to be provided in ASCII format for interfacing DAC system for real-time monitoring of Battery pack status.			
9.	BMS Output Parameters for User Interface to be provided in ASCII format	Battery Voltage in(V) Load Current in (A) Battery Pack Temperature in °C Battery Pack Capacity in Ah (Programmable) State of Capacity in % Each Battery Bank Voltage (V) Event/Errors if any			
10.	Battery Health measurement	To monitor the battery pack temperature, a sufficient number of high-accuracy temperature sensors must be installed in appropriate places pack.			
11.	Self-life/Life Cycle	>7Years (or) ≥ 600 cycles of Full Charge, whichever is earlier			
12.	Operating Temperature	0°C to 50°C			
13.	Storage Temperature	0°C to 60°C			
14.	Approximate Dimensions & Weight of Battery Pack	Shape: Cylinder, to be placed inside the NIOT's pressure-rated cylindrical housing. Diameter: ~ 420 mm (as shown in Fig.1) Length: ~ 450 mm (as shown in Fig.1) Weight: ≤ 85 Kg			
15.	Battery Casing	1. Battery casing supporting member material: Anodized Aluminum 2. Cell holder material: Rugged ABS. 3. The outer surface of the Battery pack shall be protected/package with a non-conductive wrapping sheet. 4. The battery casing must take its self-weight using an anodized aluminum supporting			

		<p>member fitted with rigid PVC/Aluminum/ any equivalent material discs at both ends.</p> <p>5. Battery package must be Light lightweight hermetically sealed, tightly encapsulated battery package.</p>			
16.	Output Connector/Cable	The battery pack shall be provided with separate current-rated connector terminals for charging and discharging purposes.			
17.	Warranty	Minimum 1-year standard warranty or more for Battery Pack & Charger Unit			
18.	Testing and qualification	<p>The battery pack must undergo the following tests and submit the report to NIOT</p> <p>1. Thermal test (one cycle)</p> <p>High Temp: @60°C & Low Temperature: @2°C</p> <p>2. External short circuit test</p> <p>3. Overcharge</p> <p>4. Forced discharge, etc.,</p> <p>And a detailed test report must be submitted to NIOT with all test parameters as per the standards test procedure.</p>			
II.Charger Unit					
19.	Charger Type	Compatible with the Battery Pack Specification			
20.	Charge duration	Minimum 10 and maximum 15 hours to charge completely. (Charger must have the option to set the charging hours/current for a quick and steady charge for the above-mentioned range)			
21.	Charger Input and output Cable length	The charger input cable must have a minimum 20m. long and the output cable length must be a minimum of 6 meters.			
22.	Charger Size, Stand & weight	The proposed unit must be modular /portable in size and must be fitted with two rack trolley in case of the charger unit weighs more than 15 kgs.			
23.	Input voltage	1 Phase 230V AC (180-280V) 50 Hz.			

24.	Operating Temperature	10 ° C to +55 ° C			
25.	Storage Temperature	10 ° C to +70 ° C			
General Instructions					
26.	General Instructions details	<p>1) The battery pack must be tightly packed to ensure structural integrity and efficient use of space.</p> <p>2) Intermediate photographs of the battery assembly and packing process must be sent to NIOT for review and verification.</p> <p>3) Final packing and covering of the battery pack shall be carried out only after receiving formal confirmation from NIOT.</p> <p>4) Any minor modifications related to the protection circuit or dimensional adjustments, if required, shall be carried out by the supplier at no additional cost.</p>			
27.	Stage-wise inspection and Approval	<p>Upon placement of the order, the successful bidder shall prepare and submit a detailed drawing of the battery pack assembly, including the protection circuit, temperature sensors, BMS interface, and other relevant components, to NIOT for approval prior to the commencement of battery pack fabrication and assembly work.</p> <p>The supplier must initiate requests to NIOT for stage-wise inspections, including intermediate inspection during assembly and final testing, before dispatch of the battery pack</p>			



Figure 2: Dimension details of 600 bar pressure-rated Housing (Titanium) for proposed battery pack.



Note:

The literature/brochure/write up of the items quoted should be uploaded.

Terms and Conditions:

- Validity:** Quote should be valid for **120 days**.
- Payment:** 100% Payment will be made within 30 Days after supply, acceptance of the materials. No advance payment shall be made.
- Delivery:** The items should be delivered at NIOT, Chennai **within 7-8 weeks** from the date of receipt of the purchase order.
- Warranty:** All the supplies shall carry warranty for **12 months** from the date of supply and acceptance by NIOT. The format of the warranty certificate shall be furnished to the successful bidder.
- Part Supply:** Not Allowed. All the items should be delivered in a single lot within the stipulated time.

We agree to all terms and conditions as per tender document.

Date:

Signature of supplier

Place:

Stamp

ANNEXURE

Format for Self Certification under Preference to "MAKE IN INDIA" Policy

(Refer Clause No. 2.8 & 3.4.4 of ITT)

CERTIFICATE

In line with Government Public Procurement Order No. P-45021/2/2017-BE-II dt. 15.06.2017, as amended from time to time and as applicable on the date of submission of tender, we hereby certify that we M/s_____ (supplier name) are local supplier meeting the requirement of minimum **Local Content** _____% as defined in above orders for the material against Tender No_____

Details of location at which local value addition will be made is as follows:

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

Seal and Signature of Authorized Signatory

SPECIMEN COPY (to be given in your Letter Head)

WARRANTY CERTIFICATE

The contractor / seller

Address hereby declares that the goods/stores/articles, namely sold to the buyer Director, National Institute of Ocean Technology, Chennai, under the Contract / Purchase Order No.: shall be of the best quality (and Workmanship) and shall be strictly in accordance with the specifications and particulars contained / mentioned in the clause / order hereof and the contractor / seller hereby guarantees that the said goods / stores / articles would continue to conform to the description and quality aforesaid for a period of days/month/year from the date of delivery of the said goods / stores / articles to the purchaser i.e., day of 2025 and that notwithstanding the fact that the purchaser or his authorized representative may have inspected and / or approved the said goods / stores / articles, if during the aforesaid period of days / months / years the said goods/stores/articles be discovered not to conform to the description and quality aforesaid or have deteriorated (and the decision of the purchaser in that behalf will be final and conclusive) the purchaser will be entitled to reject the said goods/stores/articles or such portion thereof as may be discovered not to conform to the said description and quality. On such rejection the goods/articles/stores will be at the seller's risk and all the provisions herein contained relating to rejection of goods etc., shall apply. The contractor / seller, if so called upon to do, replace the goods, etc., or such portion thereof as is rejected by the purchaser, otherwise the contractor/seller shall pay the purchaser such damages as may arise by reasons of the breach of the conditions herein contained. Nothing herein contained shall prejudice any other right of the purchaser in that behalf under this contract or otherwise.