



Lanka **IOC**

NAME OF TENDER:

**GLOBAL TENDER FOR SUPPLY OF ERA
MPD (SUCTION TYPE) AND ERA DUO
(SUCTION TYPE) DISPENSING UNITS
SUITABLE FOR DISPENSING PETROL /
DIESEL FOR LANKA IOC PLC,
SRI LANKA**

Tender No :	LIOC/ ENG/ GT/ 02/ 2018-19
Due Date &Time :	28/ 11/ 2018 @ 11:00 Hrs

TECHNICAL/ COMMERCIAL BID

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	TITLE: GLOBAL TENDER FOR SUPPLY OF ERA MPD (SUCTION TYPE) AND ERA DUO (SUCTION TYPE) DISPENSING UNITS SUITABLE FOR DISPENSING PETROL / DIESEL FOR LANKA IOC PLC	

Tender No: LIOC/ ENG/ GT/ 02/ 2018- 19
Dt: 25/ 10/ 2018

M/s.

.....
.....
.....

Dear Sir,

SUBJECT: SUPPLY OF ERA MPD (SUCTION TYPE) AND ERA DUO (SUCTION TYPE) DISPENSING UNITS SUITABLE FOR DISPENSING PETROL / DIESEL FOR LANKA IOC PLC
Due Date & Time 28.11.2018 @ 11.00 Hrs

1.0 Following documents forming a part of the mentioned tender are enclosed in single set:

1. Notice inviting tender
2. List of documents required to be submitted
3. Checklist for submission
4. Instructions to tenderers
5. Special Terms & Conditions
6. Specifications
7. Statutory Approvals & Capacity confirmation
8. Statement of Credentials to be furnished by the tenderer
9. Declaration A,B,C,D
10. List of Directors of Lanka IOC PLC
11. Proforma of Declaration of Blacklisting/Holiday Listing
12. Format for consent letter for payment through Electronic mode
13. General Terms and Conditions of the Tender
14. General Condition of Contract (GCC) for Supply of materials.
15. Format of bank guarantee for Bid-Bond(Earnest Money deposit)
16. Bank Guarantee Proforma in lieu of Security Deposit (SD)
17. Proforma for Performance Bank Guarantee
18. Proforma for Purchase agreement
19. Format for exceptions and deviations
20. Abbreviations & Notations
21. Undertaking from Bidders
22. Declarations towards Authorized Sri Lankan Agent
23. Format for Acceptance of Tender Terms and Conditions
24. Price Bid - Schedule of supply & commissioning

We request you to submit your lowest quotation for the supply of dispensing units contained in the tender. Your offer complete in all respects must be submitted so as to reach the office of LIOC at Colombo, Sri Lanka on or before **28/ 11/ 2018 at 11:00 hrs.** Offer may please be sent to the address given below.

**SENIOR VICE PRESIDENT (ENGG),
LANKA LIOC PLC,
LEVEL 20, WEST TOWER, WORLD TRADE CENTRE,
ECHELON SQUARE, COLOMBO - 01,
SRI LANKA**

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2.0 Submission of Tender Documents:

- 2.1. Tenderers must note that the tender has been invited under two bid system. Tender Envelope must be super scribed duly indicating the tender number, due date and time of opening, name of work tendered, address of tenderer. It must be noted that the technical bid (named as COVER A) & price bid (named as COVER B) shall be enclosed in two separate covers and marked. The two covers (COVER A & COVER B) in sealed condition containing the above must be enclosed in an outer cover (named COVER C) and sealed and submitted. The outer cover (COVER C) must be super scribed duly indicating the tender number, due date and time of opening, name of work tendered, name and address of tenderer. The bid bond and the minutes of pre bid meeting shall be enclosed in the technical bid cover (Cover A) only. Non-submission of the tender documents in the manner prescribed above will render the offer liable for rejection.
- 2.2. Tenderers to note that LIOC shall not be responsible for the postal delays in dispatch and receipt of tender documents. Tenderers must also note that all pages of tender along with drawings issued must be signed with stamp and submitted as part of submission of tender.

Thanking you,

Yours faithfully,
FOR LANKA IOC PLC.,

FOR SENIOR VICE PRESIDENT (ENGG)

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NOTICE INVITING TENDER (PRESS NOTICE)

 Lanka IOC PLC Lanka IOC		
<u>NOTICE INVITING TENDER</u>		
Tender no: LIOC/ ENG/ GT/ 02/ 2018- 19 Lanka IOC PLC invites sealed tenders in prescribed tender form under two bid system from bonafide contractors as per following details		
NAME OF WORK	SALE PERIOD (BOTH DAYS INCLUSIVE)	CONTACT PERSON
SUPPLY OF ERA MPD (SUCTION TYPE) AND ERA DUO (SUCTION TYPE) DISPENSING UNITS SUITABLE FOR DISPENSING PETROL / DIESEL FOR LANKA IOC PLC, SRI LANKA. COST OF TENDER: LKR 5,000/- or USD 32/- (NON-REFUNDABLE) [BY DEMAND DRAFT ONLY (DRAWN IN FAVOUR OF LANKA IOC PLC PAYABLE AT COLOMBO)]	25/ 10/ 2018 From 0900 Hrs To 27/ 11/ 2018 Up to 1700 Hrs	SR. VICE PRECEDENT(ENGG) TEL: +94 11 2475707 Email: elamarantk@lankaio.com
Please visit our website www.lankaio.com for further details on this tender.		

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NOTICE INVITING TENDER

SVP (E), Lanka IOC PLC invites sealed Tenders under two bid systems for the work as detailed below from indigenous / foreign bidders fulfilling the qualifying requirements as stated hereunder.

1.0	Name of Work	: SUPPLY OF ERA MPD (SUCTION TYPE) AND ERA DUO (SUCTION TYPE) DISPENSING UNITS SUITABLE FOR DISPENSING PETROL / DIESEL FOR LANKA IOC PLC
2.0	Tender Ref	: LIOC/ ENG/ GT/ 02/ 2018- 19
3.0	Estimated Cost	: USD 2,131,950/-
4.0	Tender Submission	: 28/ 11/ 2018 @ 11:00 HRS
5.0	Tender Opening	: 28/ 11/ 2018 @ 11:15 HRS
6.0	Tender Fee	LKR. 5,000/- (non-refundable / non-transferable) Demand draft drawn in favour of Lanka IOC PLC payable at Colombo or USD 32/- as the case maybe. : Please note that there is no tender fee in case of Bidder downloading the Bid Documents from Lanka IOC Website ie www.lankaio.com. Please ensure that you have got yourselves registered in the name in which the Bid is intended to be submitted.
7.0	Bid Bond	The bidders are required to deposit EMD/Bid Security of USD 21,320/- By way of Wire Transfer in favour of Lanka IOC PLC directly into the designated bank mentioned as below and enclose a copy of the Swift Message. Lanka IOC PLC FCBU account no. 25273008920219 held with State Bank of India, Colombo (SWIFT CODE:- SBINLKXFCB) through their account no.000146528 with HSBC, USA, New York(SWIFT CODE: MRMDUS33). : Alternatively, Demand Draft drawn on Lanka IOC PLC payable at Colombo can be submitted along with the Technical Bid.
8.0	Commencement of Sale of Tender / Downloading of Tender	: 25/ 10/ 2018 @ 0900 HRS
9.0	Closure of Sale of Tender/ Downloading of Tender	: 27/ 11/ 2018 @ 1700 HRS
10.0	Pre -Bid Meeting	Pre-bid meeting to be held at Lanka IOC PLC, Head Office, Level 20, West Tower, World Trade Center, Echelon Square, Colombo-01, Sri Lanka on 02/ 11/ 2018 @ 11:00 HRS. :

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11.0	Due Date and Time for Submission of Tender	: 28/ 11/ 2018 @ 1100 hrs. The intending bidders are required to submit their offer in the Tender Box at the following address before the due date and time: SR. VICE PRESIDENT (ENGG), LANKA IOC PLC LEVEL 20, WEST TOWER, WORLD TRADE CENTER, ECHELON SQUARE, COLOMBO 01, SRI LANKA
12.0	OPENING OF TENDERS (Technical Bid Only)	: 28/ 11/ 2018 @ 11:15 HRS
13.0	Verification of Original Documents	: 28/ 11/ 2018 to 30/ 11/ 2018
14.0	Validity of Tender	: 120 DAYS FROM THE DATE OF TENDER OPENING (TECHNICAL BID)
15.0	Validity of Contract	: 24 MONTHS FROM THE DATE OF ACCEPTANCE OF PURCHASE ORDER
16.0	Delivery Schedule for each Call Up	: Call Up quantity >30% and upto 60% of contractual quantity - 10 weeks Call Up quantity for 30% of contractual quantity or less - 8 weeks
17.0	Number of Call Up orders/ Lot Size	: Any number of Call ups within the Contract Period and each Call up for not less than 52 no. of DUs (except the last Call-up of the Contract where no restriction on numbers shall be there)
18.0	Contact Person	: T.K. ELAMARAN, SVP (ENGG) TEL: +94 011 2475707 MOB: +94 75927 8667 FAX: +94 011 2391490 OR 2475 78 EMAIL: elamarantk@lankaio.com
Note:		
I.	Part I Techno-Commercial bid will be opened on specified date and time as given in the NIT. Bidder(s) can witness opening of bid at the venue as mentioned. Part II Price bid will be opened of only those bidder(s) whose Part I Techno- Commercial Bid is found to be Techno-Commercially acceptable by LANKA IOC PLC. Such bidder(s) will be intimated date of opening of Part II Price bid, through valid email. The email shall be as used by them for registering themselves at Lanka IOC website at the time of downloading the Tender or as mentioned by them in the "Bidder's Information".	
II.	Corrigenda / addenda / clarifications, if any, shall be hosted on the above mentioned website only. No separate advertisement will be made in the print media. Tenderer should visit the website frequently to check for updates.	
III.	The documents submitted by bidder(s) will be scrutinized. In case any of the information furnished by the bidder is found to be false during scrutiny, Bid Bond/ EMD of defaulting bidder(s) will be forfeited. Punitive action including suspension and banning of business/ Holiday listing can also be taken against defaulting bidders.	

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19.0 QUALIFYING PARAMETERS:

Parties, meeting the following qualifying parameters as per details mentioned below, only need apply:

SL	QUALIFYING PARAMETERS
1.	The bidder should be Original Equipment Manufacturer (OEM) of Dispensing Units and should be having their own manufacturing facilities or their authorized agent / authorized importer/ authorized distributor/ authorized dealer. The offered models of DUs should have necessary approval from: - Safety: PESO (India) / CMRI (India)/ CE-ATEX or equivalent (on the discretion of Lanka IOC) - Weights & Measures: UL/ KHK/ OIML and Weights & Measures Approval (Sri Lanka) The above approvals should be available for the offered models of DUs in the name of OEM and should be valid as on the date of opening of technical bid.
2.	Bidder should have Similar works: Value of similar works shall be as per following. 3 similar work orders each of value not less than USD 853,000/- OR 2 similar work orders each of value not less than USD 1,065,975/- OR - Single similar work order of value not less than USD 1,705,560/- in any of the last 5 years ending 31/08/2018.
3.	Average Annual Financial turnover during last 3 financial years ending 31st Mar' 2018 (or 31st Dec'2017 as per the annual financial year closing) ie. 2015-16, 2016-17 and 2017-18 shall be at least USD 639,585/-. Note: In case the turnover for any of the above years is not furnished then, the turnover shall be taken as ZERO while computing average turnover.
4.	Business Registration and VAT/GST registration certificates must be submitted for local/foreign Bidders. Proof of only submission of application for VAT/GST registration shall not be considered as valid document.

Definition of similar works:

The bidder should have successfully completed supplies of similar items during any of the last five (05) years ending 31/ 08/ 2018 and should be as per details given below,

Any one type or any combination of ERA DUs amongst the four DU models (SDSD DUO, SDHD DUO & SD MPD (3P6H2D), SDSDHD MPD (3P6H2D)) suitable for petroleum products.

- Proof of works completed as per qualifying parameters mentioned above shall be supported by copies of work orders, approved drawings and final bill copies/ work completion certificates, etc indicating date of work order, date of completion of works, nature of works and value of works completed etc.
- In case of works taken up prior to the qualifying period (5 years ending 30/ 04/ 2018) are completed during the qualifying period then, the cost of works completed in the qualifying period shall be reckoned for the purpose of qualification. Proof of turn over shall be supported by copies of Profit and Loss account statements, income statements & balance sheet indicating therein Professional receipts.
- In the case of credentials in foreign currencies, the daily Indicative Exchange Rates as on the date of opening of Technical Bid as published by Central Bank of Sri Lanka shall be considered for the purpose of bid comparison.

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20.0 **TENDER FEE:**

- 20.1 Tender documents (non transferable) can be obtained from Engineering department, Lanka IOC PLC, 20th floor, West Tower, Echelon Square, Colombo, Sri Lanka by way of a request letter together with tender fee for **LKR 5,000/-** by way of Demand Draft/Wire transfer only & drawn in favour of LANKA IOC PLC payable at COLOMBO or **USD 32/-** as the case maybe.
- 20.2 LIOC shall not be responsible for any Postal / Courier delays if document is sought by post.
- 20.3 The tender documents can also be downloaded from our web site www.lankaio.com during the sale period. In such case, the tenderers must ensure that all the documents are downloaded and the responsibility of the same shall vest with the individual tenderer. Before downloading the tender documents from the website, the tenderer should register in the website by giving the correct name of the firm, address and all details as required. It shall be the responsibility of the tenderer to ensure that they register with the web site well in advance and download the documents before due date and time of close of sale. In case, the name and address in which the tenderers have registered at the website does not match with the name and address of in which they have quoted, their tender shall be rejected outright.
- 20.4 The tender documents downloaded are not transferable and can be used only by the registered tenderer who has downloaded the documents. Hence any tender submitted by the tenderers who have neither bought the tender nor downloaded the same shall be rejected outright. **In case, the tenders are downloaded, the tenderers are NOT required to submit the Tender Fee for LKR 5,000/ USD 32/- along with the Technical Bid documents.**

21.0 **BID BOND:**

- 21.1 Tenderers are requested to submit bid bond of **USD 21,320/-** in any of the following forms:
- Demand draft in the name of Lanka IOC PLC
 - Wire transfer to the account of LIOC as per below details:

The Bank Account details of LIOC for wire transfer are given below:

Beneficiary	- Lanka IOC PLC
Bank	- State bank of India, FCBU, Colombo, Sri lanka
Account No	- 25273008920219
Swift Code	- SBILKLXFCB
Correspondent Bank	- Acc.No:000146528 with HSBC, USA, New York (SWIFT CODE: MRMDUS33)

In case of wire transfer, tenderers are advised to enclose copy of the document towards wire transfer in the technical bid cover indicating the amount remitted to the account of LIOC.

- Bank guarantee (valid for 120 days from the date of tender opening) as per the format enclosed in the tender.

Tenders received without bid bond shall be rejected outright.

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- 21.2 The bid bond of unsuccessful tenderers shall be returned after finalization of tender and after submission of original cash receipts by the tenderers. Bid bond of successful tenderer shall be returned upon finalization of tender and on acceptance of the PO placed by LIOC. In case, tenderers submit the bid bond by means of demand draft, realization of the same would be subject to the deduction of the banker's commission charges. Again, refund of the bid bond upon finalization of tender shall also be subject to banker's commission. Hence, Lanka IOC shall refund the bid bond after deducting the banker's commission that would be applicable as mentioned above.

Tenderers may note that the bid bond shall be forfeited in case of following situations:

- Canvassing of information or submission of forged/ false documents/ information by tenderers.
- Unilateral withdrawal or revision of the offer by the tenderer during the validity period of the offer.
- Backing out after placement of work order.
- Refusal to accept the Work Order/ non-submission of Security Deposit/ Performance Guarantee

Bid bond shall not carry any interest.

22.0 PROCEDURE FOR SELECTION OF CONTRACTOR:

- A. **Pre-bid meeting:** Pre-bid meeting shall be held on the pre decided date as mentioned elsewhere in this document. The pre-bid minutes shall form a part of this tender document.
- B. **Submission of Documents towards qualifying parameters:-** Tenderer will be required to fill in and enclose documents in support of qualifying parameters together with relevant documents as given in the Statement of Credentials sheet attached. OFFER OF THOSE TENDERERS NOT ENCLOSING ALL RELEVANT DOCUMENTS TOWARDS QUALIFYING PARAMETERS ARE LIABLE FOR REJECTION
- C. **Verification of Original Documents:-** Tenderers are required to report on the specified dates mentioned in the tender along with all original documents, copies of which have been submitted with the Technical Bid towards qualification. No separate communication will be issued to tenderers in this regard. The Bids of the Tenderers who do not report for verification of original documents on date mentioned/informed may be summarily rejected.
- D. **Technical Qualification:-** Tenderer will be considered as technically qualified based on meeting qualifying parameters and after verification of original documents towards the same as stipulated above. In the event, document submitted by the tenderer is found to be forged or incorrect, such tenderer shall be rejected and bid bond submitted shall be forfeited immediately. Such tenderer is also liable to be put on Holiday List by LIOC. Parties who submit their credentials on the basis of sub contract shall not be eligible in the tender.
- E. **Price Bid Opening & Finalisation of parties:** Tenderers are required to quote their lowest and firm price in the given Price-bid. Price Bid of only technically qualified parties shall be opened, after intimation to successful tenderers. Status of tenderers shall be arrived at based on the price quoted by individual tenderers and arranged from lowest bidder to highest bidder in terms of quotation. In case of identical rates received, parties having higher annual average turnover in the last 3 financial years ie as worked out for qualifying criteria shall get precedence.

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The lowest acceptable rate with or without negotiation & accepted by Lanka IOC.

23.0 ACCEPTABLE RATES & AWARD OF CONTRACT

- 23.1 The parties are required to quote their lowest rate which on the items of the attached Schedule of Rates.
- 23.2 A merit list based on the quoted amount of the bidders in ascending order shall be prepared to decide enlistment.
- 23.3 The lowest acceptable rate shall be accepted with or without negotiation. LIOC reserves the right to reject the tender at their discretion.
- 23.4 The contract shall be finalized with maximum of ONE (01) party.
- 23.5 The Tenderers are advised to submit their offer strictly adhering to the terms and conditions and specifications contained in the Tender document and not to stipulate any deviations. Failure to do so will result in rejection of the Tender outright notwithstanding their status on quoted rates.
- 23.6 Canvassing of information or submission of forged or false documents / information by any Tenderer shall make their offer invalid. In addition, action shall also be taken by Lanka IOC PLC for forfeiture of bid bond as well as putting the Tenderer on Holiday list.
- 23.7 The successful tenderer will have to execute an agreement with LIOC PLC, covering all aspects to the contract, in the form prescribed, immediately before commencement of work. Intending tenders should acquaint themselves with provision of the agreement before sending the tenders.
- 23.8 Lanka IOC reserves the right of cancellation of the tender without assigning any reasons whatsoever.
- 23.9 Lanka IOC reserves the right to accept or reject any or all tenders at any time, at any stage, at their sole discretion without assigning any reason whatsoever without any liabilities to LIOC whatsoever. Lanka IOC also not be bound to accept lowest or any tender and reserves the right to accept one or more tenders in part. The decision of Lanka IOC in this regard shall be final.
- 23.10 Clarifications with respect to this tender shall be obtained from Lanka IOC PLC.
- 23.11 Lanka IOC reserves its right to increase/ decrease the quantities indicated in the tender and accept any tender in whole or in part and reject any or all tenders, without assigning any reason. Lanka IOC is not bound to accept the lowest rate for any tender and reserves the right to accept one or more tenders in part or full. The decision of Lanka IOC in this connection will be final.
- 23.12 In case there is a tie again, bidder with the highest turnover worked out to three decimal points in any of the last three years as submitted against turnover criteria shall be considered as L1 bidder. In event of bidder submitting turnover documents for only one or two years, L1 shall be decided on the basis of the turnovers submitted.
- 23.13 Tenderers to please note carefully the above schedule for Pre-Bid Conference since all the clarifications, if any, with regard to Technical/ Commercial conditions shall be given therein. Tenderers are advised to ensure that their queries must reach by e-mail addressed to the

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Contact person as specified in NIT at least two working days in advance for this purpose. Tenderers may also note that after the clarifications are given against the points discussed in Pre Bid conference, no further deviation shall be permitted and such clarifications shall be binding on all bidders. All are requested to attend the Pre Bid conference at their own cost.

- 23.14 Any Addendum/ Corrigendum/ Sale Date Extension in respect of the tender shall be issued on our website www.lankaio.com only & no separate notification shall be issued in the press. Bidders are therefore requested to regularly visit our website to keep themselves updated.
- 23.15 Legal dispute, if any, arising upto the stage of placement of contracts shall be governed by all relevant Sri Lankan Acts applicable within the jurisdiction of High Court in Colombo, Sri Lanka. For disputes during subsequent stages, the High Court in Colombo shall have jurisdiction.
- 23.16 All relevant rules and regulations and laws of Sri Lanka, that will be applicable for carrying out the work, shall be complied with by the supplier at their own cost, risk and arrangement.
- 23.17 Please visit our website www.lankaio.com for further details of this tender
- 23.18 Tenders should reach **ENGINEERING DEPARTMENT, LANKA LIOC PLC, LEVEL 20, WEST TOWER, WORLD TRADE CENTRE, ECHELON SQUARE, COLOMBO - 01 (SRI LANKA)** on or before due date and time mentioned above.

SR VICE PRESIDENT (ENGG)

SIGNATURE OF TENDERER
SEAL

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LIST OF DOCUMENTS REQUIRED TO BE SUBMITTED

S/N	DESCRIPTION
1	a) Manufacturing license / Factory License for Sri Lanka bidders. b) Certificate of Incorporation (CIC) and / Or Letter from Confederation of Industry (local body of the country) Or ISO / Equivalent certification for Quality Management Systems duly certifying the company's name & manufacturing activities for foreign bidders
2	CCoE / PESO approvals for the models quoted (or)
3	UL / CE-ATEX approvals for the models quoted
4	Weights & Measures Model Approvals for the quoted models (Party to specify Make & Model of Metering Unit through which they had obtained Model Approval)
5	OIML approval for the quoted models
6	Copy of Audited BALANCE SHEET including P&L statement / Published Account / PROFIT & LOSS account statements of last three preceding financial years as specified in the NIT. Note: Provisional Balance Sheet and P&L account statement will not be considered for evaluation, even if the same is uploaded.
7	For fulfilling the experience criteria any one of the following documents may be considered as valid proof for meeting the criteria of order execution: Purchase order copy with Completion certificate by client with completed order value / completed no.s (OR) (ii) Purchase Order copy along with complete Invoice(s) with client certification that supplies against the invoices have been executed. (OR) (iii) Where Lanka IOC is a client, Contract / Purchase order copy. Completed order value / completed no.s shall be verified from internal records and the same shall be binding on the bidders. In case P.Os from private parties, additionally Certificate from CA certifying value of work done with TDS certificates (where applicable) / bank statement shall be uploaded. In case of foreign currency transactions to local firms, proof of remittance shall also be required.
8	Copy of Business Registration / VAT Registration for local Bidders/ Local Agent
9	Power of Attorney: Authority of the person signing the bids details shall be required to be submitted in the bids. Document required showing the authority of the person submitting the bid shall be as given in the following table.

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	In case of Proprietary Concern		- If the bid is submitted by the proprietor, no POA required. However, he will submit undertaking certifying that he is sole proprietor. - If the bid is submitted by person other than proprietor, POA authorising the person to submit bid on behalf of the concern.
		In case of Company	- Certified copy of Board Resolution authorising the person submitting the bid on behalf of the company. (OR) - POA and the supporting Board Resolution authorising the person submitting the bid on behalf of the company.
		In case of Partnership Firm/LLP	POA along with Deed of Partnership / LLP Agreement.
		In case of Co-Operative Society	Copy of resolution passed as per Society Rules.
10	Acceptance of Tender Terms and Conditions as attached with the tender document. Bidders shall upload this document instead of complete set of technical bid documents as a token of their acceptance		
11	Undertakings and Declarations for “Holiday Listing”		

NOTE:

In case a foreign bidder submits any of the Pre-Qualification support documents in any language other than English, then it will be the responsibility of such foreign vendor to also provide the English translation copy of the same duly certified, stamped and signed by their Local Chamber of Commerce.

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CHECK LIST TO BE SUBMITTED ALONG WITH OTHER DOCUMENTS AS LISTED

S/N	Requirement	Tenderer's Confirmation (Tick below)
1	Single page declaration on letter head as per enclosed format duly signed as a mark of acceptance of all terms and conditions contained therein - To be signed & submitted	Yes / No
2	Bid-bond, Copy of (TT receipt) swift message (or) Original BG (or) Original Demand draft - To be signed & submitted	Yes / No
3	Copies of Statutory Approvals & Licenses as per Pre-qualification criteria	Yes / No
4	Copy(ies) of Purchase Orders and Completion Certificates as per Pre-qualification criteria (In line with documents for Pre-qualification criteria) - To be signed & submitted	Yes / No
5	Copy of Audited Balance Sheets and P & L accounts as per Pre-qualification criteria- To be signed & submitted	Yes / No
6	Confirmation regarding Technical Specifications	Yes / No
7	Statement of 'Statutory Approvals and Capacity confirmation' - Duly filled, signed & submitted	Yes / No
8	Statement of Credentials - Duly filled in and signed & submitted	Yes / No
9	Declarations A, B, C and D to be filled, signed & submitted	Yes / No
10	Declaration for Holiday Listing to be filled, signed & submitted	Yes / No
11	Undertaking towards Tender not Tampered to be filled, signed & submitted	Yes / No
12	Bank Details to be filled, signed & submitted	Yes / No
13	Power of Attorney (POA) of the person uploading the bids with his/her signed & submitted	Yes / No
14	Copy of the partnership deed (if applicable) / Certificate of incorporation/ - To be signed & submitted	Yes / No
15	Copy of Business Registration / VAT/GST Registration for local/foreign Bidders/ Local Agent / - To be signed & submitted	Yes / No
16	Format of exceptions & deviations (if applicable) - Duly filled in and signed & submitted	Yes / No
17	Undertaking from bidders as per Annexure	Yes / No
18	Declaration towards Authorized Local Agent (if applicable)	Yes / No
19	Price Bid (BoQ) - Duly filled in and signed & submitted	Yes / No

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INSTRUCTIONS TO TENDERERS

- 1.0** Lanka IOC PLC have issued Tender in following parts:
- Technical / Commercial Bid
 - Price Bid
- 2.0** **BIDDING CRITERIA:**
- 2.1** Each tenderer can submit only one bid. It is clarified that a person shall be deemed to have submitted multiple bids if he submits more than one bid either individually or in any combination of person (individual capacity, proprietor, affiliates, partnership, association of persons, Company). All such multiple bids shall be liable for rejection.
- a) A person shall for this purpose mean an individual, proprietor, any partner, association of persons, affiliate and company.
 - b) A company shall for this purpose include any artificial person whether constituted under the laws of Sri Lanka or of any other country.
 - c) A person shall be deemed to have bid in a partnership format or in association of persons format if he is a partner of the firm which has submitted the bid or is a member of any association of persons which has submitted a bid.
 - d) A person shall be deemed to have bid in a Company format if, the person holds more than 10% (ten percent) of the voting share capital of the company which has submitted a bid, or is a Director of the Company which has submitted a bid, or holds more than 10% (ten percent) of voting share capital and/or is a Director of a holding Company which has submitted the bid.
 - e) Affiliates of a firm are not permitted to make separate bids directly or indirectly. Two or more parties who are affiliates of one another can decide which affiliate will make the bid. Only one affiliate may submit a bid. If two or more affiliates submit more than one bid, then all such bids shall be liable for rejection.
- 2.2** The Tender is not transferable.
- 2.3** Bids from Consortium/joint ventures or MOU parties shall not be accepted.
- 2.4** The bid of the party will also be liable for rejection on the following grounds:
- 2.4.1** Bidder not meeting tender qualifying parameter norms specified / not submitting pre-qualifying and mandatory documents as per tender.
 - 2.4.2** Non-withdrawal of conditions imposed in submitted bid & conditions imposed during negotiations.
 - 2.4.3** A bidder does not submit complete Price Bid giving Rates clearly in all line items.
 - 2.4.4** A bidder who offers unsolicited reduction in the price offer whether before or after the opening of the price part of the tender(s)/bid(s) shall be liable to have his/its/their bid(s) rejected. Bidders may, however, at any stage offer a reduction if such reduction is solicited or if the OWNER gives the Bidder an opportunity to offer such reduction.
 - 2.4.5** A bidder stipulates the validity period less than what is stated in the NIT / stipulates own conditions.
 - 2.4.6** A bidder does not disclose the constitution of the firm with the full names and addresses of all his partners/directors.
 - 2.4.7** Bidder submitting fabricated/ false/ forged documents for the tender.
 - 2.4.8** Bidder is on holiday list or put on holiday list during the pendency of this tender.

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2.4.9 Any sort of canvassing by the bidder(s)

2.5 Bidders requested to quote on both options, as specified in the price bid,

2.5.1 **Option-1:** Supply of ERA MPD and ERA DUO dispensing units with 10 years warranty.

2.5.2 **Option-2:** Supply of ERA MPD and ERA DUO dispensing units with 02 years warranty and 08 years Comprehensive AMC.

2.6 To placement order will be decided by competent approving authority based on the quotation rates.

2.7 Lowest quotations from the both options will be compared and L1 rate will be considered for award of contract.

3.0 **BID BOND:**

3.1 Tenderers are requested to submit Earnest Money Deposit/BidBond as per NIT. The EMD/ BidBond will not carry interest.

3.2 The tenders will be summarily rejected if requisite EMD/ BidBond as mentioned in NIT is not submitted along with bid.

3.3 EMD/ BidBond shall be returned to unsuccessful bidders as detailed in 'FAQ' section attached separately.

3.4 Tenderers may note that the EMD/ BidBond shall be forfeited in case of following situations in addition to those contained in General Terms and Conditions:

3.4.1 In case of fraud or submission of forged/ false documents/ information by tenderers.

3.4.2 Backing out after placement of LOA / Call-up Orders.

3.4.3 Successful bidder as communicated by Lanka IOC has to report to the tender inviting office of Lanka IOC for original documents verification within a period of 7 days for Local bidders / 15 days for foreign bidders from the date of intimation by Lanka IOC. In case of failure of the bidder to get the documents verified as per the specified time schedule, the EMD of the party may be forfeited.

4.0 **SUBMISSION OF DOCUMENTS:**

4.1 Tenderers must note that the tender has been invited under two bid system. Tender Envelope must be super scribed duly indicating the tender reference number, due date and time of opening, name of work tendered, address of tenderer. It must be noted that the unpriced technical bid (named as COVER A) & price bid (named as COVER B) shall be enclosed in two separate covers and marked. The two covers (COVER A & COVER B) in sealed condition containing the above must be enclosed in an outer cover (named COVER C) and sealed and submitted. The outer cover (COVER C) must be super scribed duly indicating the tender reference number, due date and time of opening, name of work tendered, name and address of tenderer. The bid bond and the minutes of pre bid meeting shall be enclosed in the technical bid cover (Cover A) only. Non-submission of the tender documents in the manner prescribed above will render the offer liable for rejection.

4.2 The BoQ (Price Bid) comprises 4 line items. Each line item represents each of the DU models viz.; SDSD DUO, SDHD DUO, MPD SDxSDxSD (3P6H2D), MPD SDxSDxHD (3P6H2D). Prices should be submitted only in the document provided for the purpose. If the prices

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are revealed in any other manner, then such bids shall be summarily rejected. Lanka IOC's decision in the matter shall be final and binding on all bidders. Lanka IOC shall not be responsible in any way for failure on the part of the bidder to follow the instructions.

- 4.3 Bidders have to mandatorily furnish the details of EMD/ Bid-Bond and confirm the Declaration. In case any bidder fails to furnish these details, their bids will be liable to be rejected.
- 4.4 On receipt of the bids, EMD/Bid-Bond submitted shall be checked first and which requisite EMD has been received shall be considered for further evaluation.
- 4.5 It is mandatory for every tenderer to fill all the documents as set out in the tender document irrespective of their earlier association with Lanka IOC PLC. Any conditional / incomplete offer or failure to follow above instructions shall lead to disqualification even at the time of opening of bids.
- 4.6 Tenderers to note that LIOC shall not be responsible for the postal delays in dispatch and receipt of tender documents. Tenderers must also note that all pages of tender along with drawings issued must be signed with stamp and submitted as part of submission of tender.

5.0 OPENING OF BIDS:

- 5.1 Technical bids shall be opened at the specified date and time mentioned in NIT / Corrigendum if any.
- 5.2 Parties, whose technical bids are found acceptable, shall be intimated the date and time of opening of Price Bid, as decided by Lanka IOC PLC through email only.
- 5.3 The offers shall be kept valid for a period as specified in NIT (Notice Inviting Tender).
- 5.4 Clarifications with respect to tender shall be obtained from Lanka IOC PLC

6.0 RATES:

- 6.1 Tenderers should quote their lowest and firm rates against the items sought in the price bid (BOQ).
- 6.2 The price will not be subject to escalation for any reason what-so-ever during the entire period of contract.
- 6.3 **In case of Local bidders/ Local Authorized Agent:**
 - 6.3.1 Tenderer should quote their lowest and firm price in USD. The price for supply to be quoted on **CIF Colombo basis (Cost, Insurance, Freight)**. All components like inland freight in the country of origin, export packing, Supervision of Commissioning, documentation and any other misc. expenses shall be taken into account while arriving at basic price.
- 6.4 **In case of Foreign bidder:**

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- 6.4.1 Foreign bidder may submit the tender/bid through its Sri Lanka Agent with due authorisation.
- 6.4.2 The price for supply to be quoted on **CIF basis (Cost, Insurance, Freight)**. All components like inland freight in the country of origin, export packing, Supervision of Commissioning, documentation and any other misc. expenses shall be taken into account while arriving at basic price. The rates are to be quoted in USD.
- 6.4.3 The CIF price can be in USD. The rate of currency conversion as per Daily Indicative Rate issued by central bank of Sri Lanka, on the due date of opening of Price Bid of tender shall be taken for bid evaluation / comparison / finalization.
- 6.4.4 It might involve deduction of Withholding Tax for foreign bidders as applicable under department of Inland Revenue in Govt. of Sri Lanka.
- 6.5 All taxes, duties and levies of any kind that may be payable outside Sri Lanka in respect of any payment by Lanka IOC PLC under this contract shall be borne by the vendor and this shall be included in rate. No extra payment will be made by Lanka IOC PLC on this account.
- 6.6 Bill of Lading (BoL) and Bill of Entries (BoE) for import consignments of the tender items, has to be prepared in the name of Lanka IOC PLC.
- 6.7 All banking charges, if any, will be borne by the supplier.
- 6.8 Supervision of Commissioning, documentation and any other misc. expenses shall be taken into account while arriving at basic price.
- 6.9 ROLE OF LOCAL/SRI LANKAN AGENT:**
- 6.9.1 Lanka IOC would like to deal on **“Principal to Principal”** basis and price should be **EXCLUSIVE OF SRI LANKAN AGENTS COMMISSION**. However, in case if bidder has nominated a Sri Lankan Agent they should furnish the name and address of the Sri Lanka Agent.
- 6.9.2 The bidder has to submit notarised copy of the agreement with the Sri Lanka Agent which should indicate the extent of the services and after sales service to be extended by them.
- 6.10 TRANSIT INSURANCE:**
- 6.10.1 Transit Insurance upto the final destinations shall be arranged by the Vendor. However, the following documents will have to be submitted to Lanka IOC PLC., by foreign vendor immediately after dispatch of materials.
- 6.10.2 SHIPMENT BY SEA
- a) Particulars of Cargo
 - b) Bill of lading (BoL)
 - c) CIF Value
 - d) Vessel details with time of arrival at Ports.

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6.11 ORDER OF PRECEDENCE:

6.11.1 In case of irreconcilable conflict in non technical matters between provisions in separate contract documents governing the same aspect, the following shall prevail in order of preference;-

1. Formal contract / call up orders
2. Acceptance of tender (LOI/LOA)
3. Price schedule annexed to the letter of acceptance (LOA)
4. Agreed variations / Pre bid clarifications
5. Addenda to the tender documents
6. Special Conditions of Contract
7. NIT
8. Instructions to Tenderers
9. Other tender terms and conditions
10. General terms and Conditions
11. General Conditions of Contract

6.11.2 A variation or amendment issued after the execution of the formal contract shall take precedence over the formal contract and all other Contract Documents. Notwithstanding the sub divisions of the tender document into several sections and volumes, every part of each shall be deemed to be supplementary of every other part and shall be read with and into the contract so far as it may be practicable to do so.

SR. VICE PRESIDENT (ENGG)

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SPECIAL TERMS & CONDITIONS

1.0 **SUBMISSION OF TENDER DOCUMENTS:**

- 1.1 The tender documents must be dispatched so as to reach the office of Lanka IOC PLC at the following address on or before the due date and time.

SENIOR VICE PRESIDENT (ENGG)
LANKA IOC PLC,
LEVEL 20, WEST TOWER,
WORLD TRADE CENTRE, ECHELON SQUARE
COLOMBO - 01
(SRI LANKA)

2.0 **VALIDITY OF CONTRACT:**

- 2.1 The contract shall be valid for a period of **24 (TWENTY-FOUR) MONTHS** from the date of acceptance of the contract during which time, Lanka IOC shall place call up orders for purchase of the dispensing units at the accepted rates.

3.0 **VERIFICATION OF ORIGINAL DOCUMENTS:**

- 3.1 Document verification with originals shall be carried out after opening of price bids for the short listed bidder(s) only. Since documents are submitted by the bidder(s) in the tender, the responsibility of authenticity of documents shall be with the bidder(s). Shortlisted bidder(s) shall be required to present their original documents to the tender inviting authority within a period as specified under INSTRUCTIONS TO TENDERERS from the date of intimation by LIOC. In the event of failure of such bidder(s) to get the documents verified as per the specified time schedule, the bidbond of the bidder(s) shall be forfeited.
- 3.2 In the event, document submitted by the tenderer is found to be forged or incorrect, such bid(s) shall be rejected & bid bond submitted shall be forfeited. Such tenderer is also liable to be put on holiday list of LIOC.

4.0 **CONTRACT EXECUTION & DELIVERY SCHEDULE:**

- 4.1 Lanka IOC shall issue LOA after finalisation of tender on successful bidders. After issuance of LOA, the successful vendor has to complete the contractual formalities by executing 'Purchase agreement' & remit necessary security deposit within a period of 14 days at Lanka IOC PLC.
- 4.2 These rate contracts shall remain valid for a period of 24 months from date of placement of contracts. The validity can be extended for a further period of 06 months on mutual consent.
- 4.3 Any numbers of call up can be placed and each call up any of not less than 52 DUs, except for the call up of the contract where these shall be no restriction in numbers.
- 4.4 The time for completion of supply against each call up order shall be as below:

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SN	Call up order quantity	Time for Delivery
1	>30% and upto 60% of contractual quantity	10 Weeks
2	30% of contractual quantity or less	08 Weeks

- 4.5 However, Lanka IOC PLC reserves the right to alter the dispatch program, if necessary from time to time. No claim whatsoever of the vendor on this account shall be entertained by Lanka IOC PLC.

Lanka IOC reserves the rights to alter the quantity indicated in the price bid, if necessary.

The date of supply shall be taken as the date of Bill of Lading (BL) for transportation by sea.

COMMISSIONING: From time to time through Vender/Vendor's authorized local agent located in Sri Lanka based on installation of the Dispensing units. However, Lanka IOC would like to deal on "Principal to Principal" basis and price should be EXCLUSIVE OF SRI LANKAN AGENTS COMMISSION.

- 4.6 The contractual delivery period is inclusive of all the lead time for procurement of raw materials, the manufacturing, inspection, testing, packaging or any other activity whatsoever required to be accomplished for affecting the delivery at the required delivery point.
- 4.7 The contract value and quantity finalized shall be indicative and LIOC does not guarantee any quantum of order value to be issued against the contract. Actual supply shall be based on firm quantity that shall be ordered from time to time in the form of call up purchase order issued by LIOC.
- 4.8 Time of delivery (Date of supply) mentioned in the tender shall be the essence of the agreement in the event of placement of order and no variation shall be permitted except with prior authorization in writing from the Lanka IOC. Goods should be delivered, in good order and condition, at the place of delivery and within the time specified in the purchase order for their delivery. By time of delivery (date of supply) is meant, the date on which items are delivered at the location, as given in the purchase order.
- 4.9 All formalities and payments towards clearance of material, payment of all statutory levies, transportation and delivery at the various locations shall be the responsibility of the vendor.
- 4.10 The successful bidder shall supply the material in suitable weather proof packing. Defective material not meeting the specification to be replaced at the supplier's risk, cost and consequences within 15 days from the date of intimation or else "Price discount for delay in supplies" will be applicable. For the purpose of calculating price reduction amount, date of delivery will be considered. and Contracted price of materials shall mean the landed cost at supply point including all taxes and duties.

5.0 PRICE ADJUSTMENT FOR DELAYED SUPPLIES:

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- 5.1 If Dispensing Units as per call up orders are not delivered within the stipulated Delivery Date, Lanka IOC shall be entitled to discount by way of price adjustment, a sum equivalent to ½ (half percent) of the price of such materials per week or part thereof of the DUs which remains undelivered beyond the stipulated delivery period, subject to a maximum discount of 10% of total contracted price of materials. Contracted price of materials shall mean the landed cost at supply point including all taxes and duties. Such discount shall be given by the vendor by equivalent reduction in the invoice value before submission of documents to LIOC for payments.

6.0 SECURITY DEPOSIT:

- 6.1 The successful tenderer shall have to deposit interest free Security Deposit (SD) within 14 days from the date of issuance of LOA (letter of acceptance) in any of the following modes. The Security Deposit amount shall be equivalent to 5% of the value of the Basic Purchase Price (CIF Price).
- a. By way of a demand draft drawn in favour of Lanka IOC PLC. The successful tenderer shall have an option to adjust the bid bond (if submitted by demand draft/ wire transfer earlier) towards the performance guarantee and remit balance amount.
 - b. By way of wire transfer (details given in tender document).
 - c. By way of a bank guarantee: The security deposit shall be submitted by way of a bank guarantee valid for the completion period of supply (24 months) + 3 months (Claim period). The BG should be submitted in a sealed envelope of the issuing Bank and should not be in open condition. The pro forma for BG is enclosed. The Bank guarantee shall be initially valid for a duration of 24 + 3 = 27 months.
- 6.2 The successful, the Security Deposit amount shall be equivalent to 5% of the value of the Basic Purchase Price (CIF Price). The specimen of Bid bond towards SD is enclosed in the Tender. The Bid Bond is to be opened by any International Bank of repute outside Sri Lanka, as per enclosed format favoring any of the banks in Sri Lanka from the enclosed list, enabling them to issue suitable Bid Bond / Bank Guarantee in Lanka IOC PLC's favour.
- 6.3 Such successful Bidders, who have qualified based on credentials of their Holding Company, shall submit an additional security from the holding company of the Sri Lankan subsidiary Company (Bidder) in the form of a Bank Guarantee, for successful performance of the work. This BG is to be obtained from such successful bidders after placement of LOA.
- 6.4 The BG format of the additional security will remain same as the format of the BG of the Security Deposit and should remain valid for 3 months from the date of receipt of the last consignment of equipment at site.
- 6.5 Bank Guarantee should be submitted as per enclosed proforma only by the Tenderer. BG may be received directly either from the bank or the vendor through any mode (Registered post/Speed Post/Courier or by hand).

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- 6.6 No claim shall lie against the Lanka IOC in respect of interest on any deposit or Depreciation thereof. The Lanka IOC PLC shall be entitled to deduct from the deposit any loss or damage which the Lanka IOC PLC may be put to by reason of any act or default recoverable by the Lanka IOC PLC from the bidder and to call upon the bidder to maintain the deposit at the original limit by making further deposits.
- 6.7 In the event of the vendor failing to make and maintain a security deposit in the manner aforesaid be liable to forfeit any moneys lost with the tender by him and the Lanka IOC shall be entitled to cancel acceptance of the Tender.
- 6.8 Forfeiture of Security Deposit: All sums of compensation or other sums of money payable by the vendor may be deducted from SD. In the event of SD being reduced from the original quantum due to recoveries as aforesaid the vendor shall within 15 days of recoveries, make good deficiency in SD by way of Demand Draft/Pay order. Security Deposit is liable to be forfeited in case of failure on the part of Vendor to rectify the defects / fulfill the liabilities in accordance with the terms of Purchase Order / agreement.
- 7.0 QUALITY ASSURANCE PLAN(QAP) & SPECIFICATIONS:**
- 7.1 The detailed technical specifications' including the Functional requirements (Latest Version) of Dispensing Units for this tender is attached separately as SPECIFICATION FOR ALL TYPES OF DISPENSING UNITS in the tender document. The Quality Assurance requirement & documentation required against each parameter of DU technical specifications has also been spelt out under the same. The various stages (during the tender process & currency of the contract) at which these documentation/ certificates/ test reports substantiating compliance to each & every parameter of technical specification are required to be submitted, has been clearly defined in the Specifications.
- 7.2 Following approvals are forming part of pre-qualification criteria and should be mandatorily submitted along with the tender as mentioned in NIT:
 (i) Chief Controller of Explosives (PESO)
 (ii) Dept. of Legal Metrology (Weights and Measures Deptt. Govt. of Sri Lanka),
 (iii) OIML
 (iv) UL / CE-ATEX
- 7.3 The successful vendor has to submit the detailed test procedures for compliance of technical parameters mentioned against above S.Nos at clause no.C to ERTL / SAMEER / CDAC / ARAI along with the DU prototype for each of the DU model (for which the LOA has been issued) within 30 days from issuance of LOA & confirm to Lanka IOC along with supporting documentary evidence including proof of acknowledgement.
- 7.4 The requisite certifications / test reports from ERTL / SAMEER / CDAC / ARAI shall be submitted to LIOC within 60 days from date of issuance of LOA; failing which LIOC reserves the right to terminate/offload whole/part of the Work to other qualified bidders for that DU model (subject to their meeting turnover and capacity criteria) in their original proportion of allocation and / or get the same executed by any other alternative vendor. LIOC's decision in this regard shall be final and binding on the vendors.
- 7.5 Detailed factory test procedures specific to each compliance point of specifications (in line with the DU specifications) and QAP shall be submitted to LIOC within a period of

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15 days of issuance of LOA. This detailed QAP & Test Procedures shall be evaluated by LIOC/any other agency appointed by LIOC and suitable amendments may be issued accordingly as per requirement. LIOC may decide to issue guiding details to vendors on the various test points on specifications to be covered by vendor while formulating QAP & Test procedure for ensuring uniformity among all vendors within 15 days from submission of test procedures by Vendor.

- 7.6 LIOC shall appoint its authorized representative / TPI agency for regulating the inspection & pre-dispatch clearance of DU supplies & the same shall be informed to successful vendors at the time of issuance of LOA. The TPIA scope of inspection shall cover the performance of one DU per every 16 DU or part thereof and 100% checking of documentation, quality of packing (Sea worthiness), Inland transportation and Markings as applicable.
- 7.7 Clearance by any TPIA in any way shall not absolve OEM/ vendor of his responsibility for supplying the DU complying with DU specifications on every parameter as per tender conditions and technical specifications/ requirements during the entire currency of the contract. Successful vendor supplying the DU shall be solely & fully responsible for meeting the specifications & its functionalities in toto.
- 7.8 LIOC further at its discretion during the currency of entire contract period may get the DU tested at any expert lab as decided by LIOC. Any deviations observed shall be dealt in accordance with the contract conditions; besides vendor shall be under obligation for implementing the corrective solution for all such applicable DUs at no extra cost & consequences to LIOC. For all such failures the entire testing costs shall be borne by Vendor.
- 7.9 Materials offered should conform to the specifications as per Lanka IOC's specification sheet attached here to. Bidder should mention the Brand name, Make & Model and enclose literature / pamphlets, related sketches and drawings giving comprehensive details of the Materials and the maintenance showing the complete view of the materials along with the technical bid. Bidders may also enclose copies of Test Reports, if any, and design and performance chart etc. for the equipment offered against the tender.
- 7.10 Bidders found not complying with specifications in toto at a later date during deliveries or within the warranty period - are to replace / repair the defective part or rectify the system as per specifications without any extra cost to LIOC. Failure of bidders to do so, within the stipulated time period (as decided at a later date during the occurrence of the event) shall warrant forfeiture of PBG & SD and any other action including holiday listing as deemed fit by LIOC.
- 8.0 REJECTION OF SUPPLIES:**
- 8.1 Sampling, testing and acceptance of the consignment shall be carried out in accordance with the procedure and requirements laid down by Lanka IOC. If samples meet the specifications, then only the material shall be accepted.
- 8.2 The supplier should note that it is not incumbent upon Lanka IOC to check and test each and every item out of the consignment received and Lanka IOC will make only random checks in accordance with the procedure laid down by Lanka IOC described

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under ‘QAP & Specifications’ above. The supplier should, therefore, take note of all the requirements before submitting his quotation.

- 8.3 The supplier shall make their own arrangements to take back such rejected consignment, purely at their own cost and replace the same with a new DU at no extra cost and consequences to LIOC. If the supplier fails to take back the defective consignment and / or replace the defective material within a period of 15 days from the date of rejection, Lanka IOC shall be free to dispose of the rejected material and also replace the rejected material at the risk and cost of the supplier. Materials that have been dispatched by Road / Rail and rejected after arrival at destination may be taken back by the vendor either at the Station where they were rejected or at the station from which they were sent.

9.0 PAYMENT TERMS:

- 9.1 Supply of All the payments for supply against this tender shall be done in USD only. The Local bidders and foreign bidders the payment for the equipment (CIF Price) will be in the acceptable only in USD.

- 9.2 In case the payment for Comprehensive AMC, able to pay to the local bidders in **LKR** & to the foreign bidders in **USD** on finalised rate as per the contract. However, Lanka IOC would like to deal on “Principal to Principal” basis.

9.3 In case of Local bidders:

- 9.3.1 100% payment will be released to the vendor from the Lanka IOC PLC Head Office for the receiving locations under their control within thirty (30) days of submission of the requisite documents. SAP GRN shall be sent by receiving location directly to Lanka IOC PLC/ HO for payment. The payment will be released through RTGS/NEFT or any other mode as decided by the Lanka IOC PLC Head Office. All documents listed below should be submitted at Lanka IOC PLC /HO:

- (a) Taxable Invoice
- (b) LR/GRN/Way Bill etc.
- (c) Delivery Challan along with copy of Taxable invoice
- (d) Guarantee / Warranty Certificate
- (e) Packing List
- (f) Octroi Receipt along with Assessment Form (If applicable)
- (g) Vendor’s Certificate of Inspection/ Test Certificate and Pre-dispatch Test Certificate by Third Party inspection agency.

9.4 In case of foreign bidders:

- 9.4.1 100% payment will be released to the foreign party in foreign currency (as applicable) and to its Local Agent in LKR, within thirty days of receipt of materials in the respective locations and submission of the Invoice duly supported by all relevant documents including signed copy of GRNs etc in original and completion of the necessary formalities as per PO conditions. The payment will be released through electronic transfer or any other mode as decided by the Lanka IOC.
- 9.4.2 All Bank Charges and stamp duties, if any, payable to Supplier’s Bank in the Supplier’s country in connection with payment shall be borne by the supplier. Foreign payments might involve deduction of Withholding Tax (for Foreign Bidders)

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9.4.3 The following documents are to be submitted by the Vendor for releasing payment for the equipment.

- a. Negotiable full set of clean Bill of Lading
- b. Signed invoice in quadruplicate for quantity shipped.
- c. Certificate of Origin - 4 copies.
- d. Packing List - 4 copies.
- e. Taxable Invoice
- f. LR/GRN/Way Bill etc.
- g. Delivery Challan along with copy of Taxable invoice
- h. Guarantee / Warranty Certificate
- i. Octroi Receipt along with Assessment Form (If applicable)
- j. Vendor's Certificate of Inspection/ Test Certificate and Pre-dispatch Test Certificate by Third Party inspection agency.

10.0 WARRANTY: Supply of DUs with 10 years warranty

10.1 The contract shall be in supply of Dispensing Unit with 120 months (10 years) warranty period. The date of actual commissioning shall be treated as zero date for commencing warranty period. However, if the commissioning is delayed beyond four months from the date of supply, the warranty shall commence from the fifth month onwards.

10.2 The warranty of the equipment shall include the supervision of commissioning activities, preventive and breakdown maintenance, servicing of the equipment on-site at various locations across the country and would include maintenance and servicing of all mechanical, electrical, electronic components, sub-assemblies and replacement of faulty parts etc. During warranty period, all materials/spares parts etc. including labour required for the maintenance of the equipment shall be carried out by the vendor at their cost. The equipment would have a warranty period of $120 + 3 = 123$ months from the date of supply of the respective DU which shall be mentioned as a line item in the name plate of each & every model supplied against this contract. If there is delay of more than three (03) months in the date of manufacture & delivery of the DU at Lanka IOC location - the date of receipt of DU at Lanka IOC location shall be taken as date of commencement of warranty period. The Warranty shall cover compulsorily replacement of DU hanging hardware which includes nozzles, hoses & breakaway coupling once every two years or before as warranted. To have a clear distinction for 10 year warranty, the vendor has to mark "10" suitably on the body or plate of all the DUs supplied against this contract.

10.3 However during warranty period, Preventive maintenance visit once in every block of two months (Block of Jan-Feb, Mar-Apr.....Nov-Dec) after commissioning will be compulsory. Inter visit gap should be minimum 30 days. No separate payment will be made for such preventive maintenance visits during warranty period.

10.4 Reports against preventive maintenance visits should be submitted to respective LIOC offices in the format enclosed in this tender. In addition, if there are any breakdowns during warranty period, reports against such visits shall be submitted to respective LIOC offices in the format enclosed in this tender.

10.5 Non- performance during warranty period:

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10.5.1 Vendors should assume complete responsibility for ensuring authorised representatives for Supervision of commissioning activities. Vendor should also assume complete responsibility of satisfactory performance of the equipment and after-sales service of the equipment. For carrying satisfactory and prompt service during contract period, bidders have to ensure availability of all kinds of spare parts in sufficient quantity. Bidder has to give consent for the same.

10.5.2 In the event of suppliers performance level is not acceptable during the warranty period, Lanka IOC PLC reserves the rights to get the service done from any other agency at the risk and cost of the supplier along with statutory levies, if any.

10.5.3 In the event of Lanka IOC PLC nominating the service provider agency, the supplier shall impart necessary training to the alternate service provider's personnel at supplier's works at no extra cost to Lanka IOC PLC. Supplier should ensure that alternate service provider personnel have required skill level and competencies to provide good maintenance services and support to Lanka IOC PLC. The supplier is also bound to supply the spare parts to Lanka IOC PLC's authorised representatives. The total maintenance cost in the above will be borne by the supplier.

10.6 **Penalty against detection of tampering:**

10.6.1 **Within Warranty Period (& Comprehensive AMC):**

(i) In the event of any kind of tampering (Hardware/Software/ External Chips/Change in circuitry system) happening in the intelligent electronic cards within warranty period, which can be attributed to the negligence of DU/MPD vendor by not providing tamper proof intelligent cards or should have been prevented by DU/MPD vendor, a penalty of 10% on the total value of Dispensing units Tender Contract will be levied. Vendor has to develop counter mechanism and upgrade it in all the DU/MPDs that were supplied with similar configuration / similar platform against this tender within six months of notice from Lanka IOC.

(ii) In case the tampering (Hardware / Software/External Chips/Change in circuitry system)) happens during the warranty period. Vendor should ensure that all the tamper prone cards are replaced with cards having counter mechanism at all the MPDs/DUOs in a systematic manner within 6 months of notice from Lanka IOC at no extra cost. The clause is also applicable in an instance where tampering re-occurs even after upgradation. This condition applies throughout the warranty period. Bidder will not be responsible for fraud arising out of mechanical damage or physical changes made to the DU other than in electronic cards or by passing of the ERA for tampering. The term tampering of intelligent cards will be applicable where in there are (1) Unauthorized software modifications in DUs (2) Inserting foreign devices which are not part of standard equipment with an ill intended purpose to alter the accuracy of deliveries/ camouflaging event logs (3) Dispenser not meeting the functionalities mentioned in the tender etc. The term also applies in case DUs/MPDs does not detect or throw evidence of tampering in intelligent electronic cards and continues to function without providing an event log or an error.

(iii) Vendors have the option to upgrade dispensers once in three years (or even earlier) for strengthening it against tampering with no additional outgo to LIOC. However, such upgradation should be done with prior written communication to LIOC giving reason and justification for such upgrade.

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10.6.2 Definition of Intelligent Cards: Pulsar Card, Control Card/CPU/ERA, Display Cards, E Cal card and any other cards with in the dispensing unit which sends and receives data. Terms & conditions of Comprehensive Annual Maintenance Contract (CAMC) during warranty period are attached separately.

Applicable taxes on all penalty amounts shall be to vendors' account.

10.6.3 Indemnity:

- (i) Vendor to undertake that due to usage/ malfunctioning of such Dispensing Unit, if any litigation / prosecution is initiated against Purchaser or its Dealer; or Lanka IOC including its Chairman, Directors, Employees, Officers etc. or its Dealer incurs any loss, damages, expenses, cost, charges etc., Supplier at all times shall indemnify and keep oil company indemnified therefore at all times whatsoever during the total contractual period.

10.7 Penalty against maintenance service during the warranty:

10.7.1 Time limit for attending to complaints:

- a. All dispensing units with nozzles located within Colombo municipal limit area (Colombo city + locations within 25 Km from Colombo) to be attended for breakdown maintenance within 24 Hours from the time of complaints lodged by Dealers of petrol sheds/ Field officers or Head office of LIOC.
- b. All dispensing units located beyond Colombo Municipal limits but within 100 Km from the city of Colombo to be attended for breakdown maintenance within 48 hours from the date and time of complaint.
- c. All dispensing units located beyond 100 km from Colombo Municipal limits to be attended for breakdown maintenance within 72 hours from the date and time of complaint.

10.7.2 Deductions towards Delay in Completion of services/ replacements/ preventive maintenance during warranty:

- a. Breakdown Maintenance: LKR 500/- for each day of delay and will be restricted to an amount of Rs 60,000/- However, beyond the period of 120 days the applicable penalty will be limited to the basic cost of the MPD/DUO.
- b. For complaints registered later than 1600hrs, the "Zero" time shall be reckoned as 0700hrs next day.
- c. Preventive Maintenance: LKR 500/- for each day of delay and will be restricted to an amount of Rs 60,000/- However, beyond the period of 120 days the applicable penalty will be limited to the basic cost of the MPD/DUO.

11.0 Warranty and CAMC: Supply of DUs with 02 years warranty & 08 years Comprehensive AMC

11.1 The contract shall be in two parts i.e. Part A for supply of Dispensing Unit with 24 months (2 years) warranty and Part B for Comprehensive Annual Maintenance Contract (CAMC) for 96 months (8 years) on expiry of warranty period.

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11.2 The date of actual commissioning shall be treated as zero date for commencing warranty period. However, if the commissioning is delayed beyond four months from the date of supply, the warranty shall commence from the fifth month onwards.

11.3 Warranty

11.3.1 The warranty of the equipment shall include the supervision of commissioning activities, preventive and breakdown maintenance, servicing of the equipment on-site at various locations across the country and would include maintenance and servicing of all mechanical, electrical, electronic components, sub-assemblies and replacement of faulty parts etc. During warranty period, all materials/spares parts etc. including labour required for the maintenance of the equipment shall be carried out by the vendor at their cost. The Warranty shall cover compulsorily replacement of DU hanging hardware which includes nozzles, hoses & breakaway coupling once every two years or before as warranted. To have a clear distinction for 02 year warranty and 08 years CAMC,

11.3.2 However during warranty period, Preventive maintenance visit once in every block of two months (Block of Jan-Feb, Mar-Apr.....Nov-Dec) after commissioning will be compulsory. Inter visit gap should be minimum 30 days. No separate payment will be made for such preventive maintenance visits during warranty period.

11.3.3 Reports against preventive maintenance visits should be submitted to respective Lanka IOC offices in the format enclosed in this tender. In addition, if there are any breakdowns during warranty period, reports against such visits shall be submitted to respective Lanka IOC offices in the format enclosed in this tender.

11.3.4 **Non- performance during warranty period:**

(i) Vendors should assume complete responsibility for ensuring authorised representatives for Supervision of commissioning activities. Vendor should also assume complete responsibility of satisfactory performance of the equipment and after-sales service of the equipment. For carrying satisfactory and prompt service during contract period, bidders have to ensure availability of all kinds of spare parts in sufficient quantity. Bidder has to give consent for the same.

(ii) In the event of suppliers performance level is not acceptable during the warranty period, Lanka IOC PLC reserves the rights to get the service done from any other agency at the risk and cost of the supplier along with statutory levies, if any.

(iii) In the event of Lanka IOC PLC nominating the service provider agency, the supplier shall impart necessary training to the alternate service provider's personnel at supplier's works at no extra cost to Lanka IOC PLC. Supplier should ensure that alternate service provider personnel have required skill level and competencies to provide good maintenance services and support to Lanka IOC PLC. The supplier is also bound to supply the spare parts to Lanka IOC PLC 's authorised representatives. The total maintenance cost in the above will be borne by the supplier.

11.4 Comprehensive Annual Maintenance Contract (CAMC):

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- 11.4.1 CAMC to cover all items of Dispensing Units including hanging parts supplied with DU. All the nozzles of particular DU should be in working condition at the end of preventive maintenance visit to consider it as acceptable maintenance visit.
- 11.4.2 The CAMC of the equipment shall include the preventive and breakdown maintenance, servicing of the equipment on-site at various locations across the country and would include maintenance and servicing of all mechanical, electrical, electronic components, sub-assemblies and replacement of faulty parts etc. During CAMC period, all materials/spares parts etc. including labour required for the maintenance of the equipment shall be carried out by the vendor at their cost. The CAMC shall cover compulsorily replacement of DU hanging hardware which includes nozzles, hoses & breakaway coupling once every two years or before as warranted. To have a clear distinction for 2 year warranty and 8 years CAMC, the vendor has to mark “2 + 8” suitably on the body or plate of all the DUs supplied against this contract.
- 11.4.3 08 years Comprehensive Annual Maintenance Contract (CAMC) after expiry of 2 years of warranty:
- a. For the first 4 years: Yearly comprehensive AMC cost of all nozzles put together for each DU will be minimum 7% of quoted Basic price.
 - b. For subsequent 4 years: Yearly comprehensive CAMC cost of all nozzles put together for each DU will be minimum 8% of quoted Basic Price.
- 11.4.4 The above CAMC charges shall include hanging hardware also. Basic Price shall mean the CIF Colombo price (Cost, Insurance & Freight at Sri Lankan port location).
- 11.4.5 During CAMC period, Preventive maintenance visits once in two months (Block of Jan-Feb, Mar-Apr.....Nov-Dec) will be compulsory. Inter preventive maintenance visit gap should be minimum 30 days.
- 11.4.6 Vendor shall ensure that all nozzles of the DU are in working condition at the end of each preventive maintenance visit. No payment shall be made for the DU if even a single nozzle is not in working condition.
- 11.4.7 Reports against preventive maintenance visits should be submitted to respective Lanka IOC offices in the format enclosed in this tender. In addition, if there are any breakdowns during CAMC period, reports against such visits shall be submitted to respective Lanka IOC offices in the format enclosed in this tender.
- 11.4.8 Lanka IOC reserves the right to discontinue CAMC for any DU / all DUs for a temporary / total period.
- 11.4.9 In the event of suppliers performance level is not acceptable during the warranty / CAMC period, Lanka IOC PLC reserves the rights to get the service done from any other agency at the risk and cost of the supplier along with statutory levies, if any.
- 11.4.10 In the event of Lanka IOC PLC nominating the service provider agency, the supplier shall impart necessary training to the alternate service provider's personnel at supplier's works at no extra cost to Lanka IOC PLC. Supplier should ensure that alternate service provider personnel have required skill level and competencies to

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provide good maintenance services and support to Lanka IOC PLC The supplier is also bound to supply the spare parts to Lanka IOC PLC's authorised representatives. The total maintenance cost in the above will be borne by the supplier.

- 11.5 After the expiry of Warranty period, the CAMC has to be carried out for the supplied DUs in Retail Outlets of Lanka IOC PLC.
- 11.6 The CAMC shall be valid for a period of 4 + 4 =8 (Eight) Years from the date of completion of warranty period. The same may be extended for a further period of one year at the sole discretion of Lanka IOC at the same rates terms and conditions.
- 11.7 Coverage of Spares: The vendor shall supply all spares including nozzles and hoses as and when needed, under the CAMC.
- 11.8 Preventive maintenance modalities:
Preventive maintenance shall be done by vendor once in every two month. These preventive maintenance visits shall be scheduled @ 1 visit in a block of 2 months (i.e. Block of Jan-Feb, Mar-Apr and so on...). The gap between 2 preventive maintenance visits shall be minimum 30 days.
- 11.9 Payment to vendor:
- (i) The Service report for completion of work for preventive and breakdown maintenance has to be signed by the Dealer / COCO Manager and Field Sales Officer and enclosed with bill submitted to Divisional Office for payment.
 - (ii) Lanka IOC shall make all out efforts to make the timely payments within 30 days of submission of certified bills with proper reports. However Lanka IOC shall not be liable for any payment as demurrages on account of late payment for whatsoever reason.
 - (iii) CAMC rates are per DU and the payment for CAMC in a DO will be released every two months for the actual work done for the corresponding months.
- 11.10 Coverage of dispensing Units:
Lanka IOC will furnish tentative list of Retail Outlets and DUs which are under coverage of the contract at the beginning of contract. LIOC will have right to reduce the number based on replacement during the contract.
- 11.11 Stamping of DUs:
The vendor shall render all assistance in getting the units stamped. However, stamping fee/other statutory charges, any incidental expenses shall be outside the purview of CAMC. One authorized representative of the vendor shall necessarily be present at the time calibration and stamping of DU through W&M Deptt. The vendor shall ensure and certify that all components in the DU including Pulsar module and its sub-components are in order and no external fittings are present.
- 11.12 Services to be provided free by LIOC:
RO Dealer shall provide utilities viz.electricity, water, compressed air, etc for and during the maintenance of DUs.
- 11.13 Risk purchase:

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In case the service is not satisfactory in part or in full, Lanka IOC reserves the right to get the services from any other source at the risk and cost of vendor. Amount spent in carrying out such jobs will be deducted from the vendor's bill. Recovery of requisite tax amount over and above the penalty amount shall be done from the vendor's bill.

Exclusions:

Any damage to the DUs due to accident, natural calamity, mishandling etc, are out of the coverage of CAMC and rectification thereof will be dealt separately.

- 11.14 The CAMC will be applicable only for the Dispensing Units, which are not in the warranty period. The vendor shall ensure that the unit is not under warranty period at the time of execution of CAMC contract.
- 11.15 The maintenance schedule and the checklist shall be prepared by successful vendor in line with the format applicable for different type of DUs and shall be approved by Lanka IOC. Lanka IOC PLC shall have the liberty to amend the checklist as per their sole discretion and requirement.
- 11.16 The format should be printed by the vendor in triplicate in the form of a serial number booklet. The necessary certificate for completion of work for preventive and breakdown maintenance has also to be obtained and submitted to the Field Officer along with the bill.
- 11.17 The vendor, who will be awarded the job, shall be required to position their adequate nos. of service engineers within the Divisional Office area, with a facility of dedicated telephone for booking the complaints. The Service Personnel should also have necessary license, if applicable, from Weights & Measures and other statutory bodies for repairing/calibration/stamping of metering units/ Dispensing units.
- 11.18 In case of emergency conditions, bandh/strike due to which, the service provider is unable to attend, the relaxation equal to the number of days the calamity exist deterring the vendor to attend the complaint or pay regular maintenance visit shall be granted. In case the job is not done despite granting relaxation, penalties as mentioned will be applicable along with applicable taxes.
- 11.19 The Dispensing Unit under CAMC may be transferred to any other location and in this case the vendor has to offer the CAMC for the remaining period to a new location if the Lanka IOC so desires. The Lanka IOC on its part would make all necessary arrangements of installing the same and all costs regarding transportation, dismantling and reinstallation will be borne by Lanka IOC PLC.
- 11.20 In case of damage due to voltage fluctuation, the vendor on first instance shall undertake the repairs and advise the Lanka IOC for remedial action. Any subsequent damage due to above shall be on Lanka IOC account in case the Lanka IOC does not take the remedial action.
- 11.21 The vendor shall suitably position adequate technically qualified manpower so that complaints are attended promptly. The vendor should also position and maintain inventory points for spares of Dispensing Units at suitable locations for quick and prompt redressal of complaints.

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- 11.22 The vendor should inform LIOC about any authorized addition / alteration of the equipments in a Dispensing unit or unauthorized activities performed on the Dispensing Units. All numbers of serially numbered parts should be included in the inspection report for establishing the same in future. In case of spurious parts (shall not include repaired parts) being found in DUs, same to be handed over to Lanka IOC after replacement with proper documentation.
- 11.23 The vendor would submit computer generated monthly reports of nozzle wise downtime and maintenance, which could be verified by Lanka IOC PLC at any point of time by access to vendors computers as well as any other record available to Lanka IOC PLC. The report will have date and time of complaints logged and date and time of the problem rectified . In case of delay which is attributed to vendor , penalty amount as per contract, to be deducted by vendor while submitting the monthly bills for AMC. Vendor must submit bills with an items of applicable deduction in their bills.
- 11.24 The vendor has to submit a monthly report along with the bill specifying the lead time taken for attending the breakdown complaints. The signed report will have date and time of complaint logged and date and time of the problem rectified. In case of delay, reasons for the same have to be recorded.
- 11.25 In case of any DU is beyond repair at any point of contract it shall be declared scrap by vendor citing detailed technical reasons for the same and vendor shall be under obligation to declare the scrap value of such unit at no extra cost to Lanka IOC. No additional visit shall be required for the same in case the DU is required to declare as scrap and same has to done on the first maintenance/ breakdown visit of that DU.
- 11.26 The preventive/breakdown maintenance reports shall be made DU wise i.e. separate report for separate DU. The preventive maintenance report should have the breakdown history details DU wise. The preventive/breakdown maintenance reports shall be submitted by vendor separately with the Monthly AMC bills. The reference of previous attended date for preventive maintenance of DUs shall be mentioned in the subsequent service report
- 12.0 USE OF SAFETY ITEMS FOR WORKERS PROTECTION.**
- 12.1 The vendor shall also provide Safety shoes, helmets, belts, Gloves and any other Personal Protective Equipments (PPE) as required to all of his workmen working at site in line with the guidelines of location and contained in the GCC attached with this tender.
- 12.2 Successful bidder shall be required to give an undertaking that the bidder shall not engage child labour as per various labour laws applicable to them. The bidder shall undertake to comply with various legislations, as may be applicable from time to time. Any entity making a fake claim would have its contract terminated forthwith, if detected later.
- 12.3 Vendors should assume complete responsibility for ensuring authorized representatives for CAMC/ Warranty activities. Vendor should also assume complete responsibility of satisfactory performance of the equipment during CAMC / Warranty period. For carrying satisfactory and prompt service during contract period, bidders have to ensure availability of all kinds of spare parts in sufficient quantity. Bidder has to give consent for the same. Vendors must provide list of their authorized service engineers with

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their, name , designation and address to Divisional Office every month along with the monthly AMC bills.

- 12.4 Vendor to undertakes that due to usage / malfunctioning of such Dispensing Unit, if any litigation / prosecution is initiated against Purchaser or its Dealer; or Lanka IOC including its Chairman, Directors, Employees, Officers etc. or its Dealer incurs any loss, damages, expenses, cost, charges etc., Supplier at all times shall indemnify and keep Lanka IOC indemnified therefore at all times whatsoever.
- 12.5 Vendor undertakes that due to detection of any unauthorized or additional devices / tampering in the electronic circuit in the Dispensing Unit, if any litigation / prosecution is initiated against Purchaser or its Dealer; or Lanka IOC including its Chairman, Directors, Employees, Officers etc. or its Dealer incurs any loss, damages, expenses, cost, charges etc., Vendor at all times shall indemnify and keep Lanka IOC indemnified therefore at all times whatsoever.
- 12.6 In case any additional or unauthorized devices / unauthorized tampering in the electronic circuit is detected, complete details should be given and FO/DO to be informed immediately. Failing to comply with the above, the AMC vendor will be held responsible for the same.
- 12.7 Penalty against maintenance service during comprehensive AMC period (After expiry of warranty):
- 12.7.1 Time limit for attending to complaints:
- d. All dispensing units with nozzles located within Colombo municipal limit area (Colombo city + locations within 25 Km from Colombo) to be attended for breakdown maintenance within 24 Hours from the time of complaints lodged by Dealers of petrol sheds/ Field officers or Head office of LIOC.
 - e. All dispensing units located beyond Colombo Municipal limits but within 100 Km from the city of Colombo to be attended for breakdown maintenance within 48 hours from the date and time of complaint.
 - f. All dispensing units located beyond 100 km from Colombo Municipal limits to be attended for breakdown maintenance within 72 hours from the date and time of complaint.
- 12.7.2 Deductions towards Delay in Completion of services/ replacements/ preventive maintenance during the Comprehensive AMC period:
- a. Breakdown Maintenance: LKR 500/- for each day of delay and will be restricted to an amount of monthly nozzle charges.
 - b. For complaints registered later than 1600hrs, the “Zero” time shall be reckoned as 0700hrs next day.
 - c. Preventive Maintenance: LKR 500/- for each day of delay and will be restricted to an amount of monthly nozzle charges in case delay exceeding 7 days from the scheduled preventive maintenance date i.e. 2 months from the date of last preventive maintenance.

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12.7.3 Exclusion of Penalty: Exclusions to above shall be in event of force majeure, which is defined as follows:

- (a) Natural calamities, civil wars and national strikes which have a duration of more than seven consecutive working days,
- (b) Strike at Vendor's works for more than 60 consecutive days.
- (c) Act of willful damage by other than vendor's authorized representatives

Note: Commercial hardship and third party breach, strike, shutdown or lockout other than specified at (a) and (b) above shall not constitute an event of Force Majeure

12.8 PENALTY REALISATION DURING CAMC:

12.8.1 For calculation of penalty, the details of nozzle-wise break-down as stated above shall be submitted by the vendor to Engineering Dept. Lanka IOC/HO on monthly basis showing clearly the amount of penal charges. Normally, the Engineering Dept. will compile/verify the same on monthly basis for recovery of the same from the vendor. The vendor will be given 15 days time to respond in case of any discrepancy. In case of no further response from the vendor, the penal realization amount is deemed to have been accepted by the vendor and the vendor has to deposit the entire amount by mode of DD payable at Lanka IOC/HO within a period of another 15 days failing which the amount will be realized from other pending bills at Engineering Dept. Lanka IOC/HO.

12.8.2 In case the vendor does not submit any report for maintenance failures in line with the provisions as stated above, Lanka IOC would be free to take any action in this regard including encashment of PBG. If the amount to be deducted becomes more than the PBG amount, the balance may be realized from any other BG held with the Lanka IOC or any money lying with the Lanka IOC.

12.9 PENALTY REALISATION DURING WARRANTY PERIOD:

12.9.1 For calculation of penalty, the details of nozzle-wise break-down as stated above shall be submitted by the vendor to Engineering Dept. Lanka IOC/HO) on monthly basis showing clearly the amount of penal charges. Normally, the Engineering Dept. will compile/verify the same on quarterly basis and advice SO Retail for recovery of the same from the vendor. The vendor will be given 15 days time to respond in case of any discrepancy. In case of no further response from the vendor the penal realization amount is deemed to have been accepted by the vendor and the vendor has to deposit the entire amount by mode of DD payable at Lanka IOC/HO within a period of another 15 days failing which the amount (consolidated amount of one vendor for all the Div Offices under the SO) will be realized on partial or full encashment of the PBG

12.9.2 The vendor has to pay the additional BG for the equivalent amount of penal realization which shall remain valid for the entire duration of PBG. In case of failure to do so LIOC reserves the right to initiate action as deemed fit which may include holiday listing of the vendor.

12.9.3 In case the vendor does not submit any report for maintenance failures in line with the provisions as stated above, Lanka IOC would be free to take any action in this regard including encashment of PBG.

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12.9.4 If the amount to be deducted become more than the BG amount, the balance may be realized from any other BG held with the Corporation or any money lying with the Corporation in coordination with HO/Retail.

13.0 PERFORMANCE BANK GUARANTEE(PBG) FOR SUPPLY OF DUS WITH 10YEARS WARRANTY:

- 13.1 The successful bidder has to provide Bank Guarantee (BG) of 20% of the value of the Contract valid for a period of 120 months (One hundred twenty months to cover 120 months warranty/Guarantee period). The PBG shall be paid before the commencement of supplies which should not be later than 06 weeks from the date of release of call-up order. The PBG amount covers spares cost, AMC cost, Supervision of commissioning cost etc under warranty clause. Bidder can submit single PBG for entire amount as per tender instructions. The details of PBG deposit are given under Other Terms & Conditions of Contract.
- 13.2 However in case of auto renewal facility is not available after initial 4 years period, the vendor shall submit fresh BG for balance 6 years period at minimum 2 months prior to expiry of initial BG. In case of delay on the part of the vendor in submission of the renewed/fresh BG during the warranty period, Lanka IOC may invoke the earlier BG submitted for warranty.
- 13.3 The vendors are required to submit PBG of requisite value at each of the S.O separately after placement of call up orders within a period of 15 days. Payment against supplies shall be released only after receipt of valid PBG. The PBG amount covers spares cost, Warranty & Supervision of commissioning cost etc.
- 13.4 On dispatch of the equipment, by way of Bank Guarantee, the vendor shall Guarantee that any and all materials used in execution of the Purchase Order shall be in strict compliance with characteristics, requirements and specifications agreed upon and that the same shall be free from any defects. Checking of Vendor's drawings by the Lanka IOC PLC's representatives and their approval and permission to ship or dispatch the equipment and materials granted by Inspectors (if applicable) shall not relieve the Vendor from any part of his / its responsibilities of proper fulfilment of the requirements.
- 13.5 The Vendor will guarantee that all materials and equipment shall be repaired or replaced as the case may be at his own expense in case the same have been found to be defective in respect of materials, workman-ship or smooth and rated operation within a period of 120 months from the date of commissioning of Dispensing Pumps.
- 13.6 The guarantee period for the part that may be altered repaired or replaced shall cover full warranty period of the Unit.
- 13.7 Acceptance by the Lanka IOC PLC or its inspectors of any equipment and materials or its replacement (if applicable) will not relieve the Vendor of its responsibility of supplying the equipment / materials strictly according to the specification and according to the guarantees agreed by the Vendor.
- 13.8 It will be responsibility of the Vendor to keep the Bank Guarantee fully subscribed. Any shortfall in the value of the Bank Guarantee as a result of encashment by the Lanka IOC either in full or in part in terms of the Performance Guarantee shall be made good by the Vendor within one week thereof.

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14.0 PERFORMANCE BANK GUARANTEE (PBG) FOR SUPPLY OF DUS WITH 02 YEARS WARRANTY & 08 YEARS COMPREHENSIVE AMC

- 14.1 The successful bidder has to provide Bank Guarantee (BG) of 10% of the value of the Contract. Value of Contract shall mean the total value of PO including CAMC charges and all taxes. The Bank Guarantee shall be given for 11 years period or initial 3 year period with 4 auto renewals of validity for 2 years each so as to cover the entire delivery period, period of 2 year Warranty, 8 years of CAMC period also have some minimum claim period over and above the guarantee and CAMC period and must be renewed before 60 days of expiration of PBG. In case of delay in supplies beyond the contractual period, the PBG should be extended suitably to cover the extended delivery period.

However in case of auto renewal facility is not available after initial 3 years period, the vendor shall submit fresh BG for balance 8 years period at minimum 2 months prior to expiry of initial BG. In case of delay on the part of the vendor in submission of the renewed/fresh BG during the CAMC period, LIOC may invoke the earlier BG submitted for CAMC.

- 14.2 The vendors are required to submit PBG of requisite value at each of the S.O separately after placement of call up orders within a period of 15 days. Payment against supplies shall be released only after receipt of valid PBG. The PBG amount covers spares cost, Warranty & CAMC cost, Supervision of commissioning cost etc.
- 14.3 On dispatch of the equipment, by way of Bank Guarantee, the vendor shall Guarantee that any and all materials used in execution of the Purchase Order shall be in strict compliance with characteristics, requirements and specifications agreed upon and that the same shall be free from any defects. Checking of Vendor's drawings by the Lanka IOC PLC's representatives and their approval and permission to ship or dispatch the equipment and materials granted by Inspectors (if applicable) shall not relieve the Vendor from any part of his / its responsibilities of proper fulfilment of the requirements.
- 14.4 The Vendor will guarantee that all materials and equipment shall be repaired or replaced as the case may be at his own expense in case the same have been found to be defective in respect of materials, workman-ship or smooth and rated operation within a period of 120 months from the date of commissioning of Dispensing Pumps.
- 14.5 The guarantee period for the part that may be altered repaired or replaced shall cover full warranty / CAMC period of the Unit.
- 14.6 Acceptance by the Lanka IOC or its inspectors of any equipment and materials or its replacement (if applicable) will not relieve the Vendor of its responsibility of supplying the equipment / materials strictly according to the specification and according to the guarantees agreed by the Vendor.
- 14.7 It will be responsibility of the Vendor to keep the Bank Guarantee fully subscribed. Any shortfall in the value of the Bank Guarantee as a result of encashment by the Lanka IOC either in full or in part in terms of the Performance Guarantee shall be made good by the Vendor within one week thereof.

15.0 SPARE PARTS:

- 15.1 The vendor shall ensure availability of spare parts after completion of warranty period on need basis.

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16.0 COMMISSIONING OF EQUIPMENT:

- 16.1 Vendor should advise in advance the pre-installation requirements including schematic drawings so as to enable Purchaser to carry out the basic works for installation of the equipment and arrange complete erection work. However, vendor should depute their personnel for supervision of erection & commissioning works.

17.0 SERVICES OF VENDOR'S PERSONNEL OR LOCAL REPRESENTATIVE/ AGENT:

- 17.1 Against maximum two weeks notice, the vendor shall depute the necessary skilled personnel to locations for Supervision of Erection & Commissioning works for each DU. Vendor shall not impose any restriction on availability of their skilled personnel for this work. Preferably one service engineer should be positioned for servicing of every 70-80 DUs. The vendors should provide the address of service headquarters along with the details of skilled manpower / service engineer to the respective Division/State Office.
- 17.2 Necessary operation and maintenance manual should be supplied to Lanka IOC along with Trouble shooting manual and other catalogues. At the time of Supervision of Erection & Commissioning works vendor shall explain to the Retail Outlet Personnel the do's and don'ts for trouble free operation.
- 17.3 The scope of work for Supervision of Installation/ Commissioning includes the following:
- (i) Verification of correct quantity of goods including Accessories/spares for commissioning as per Purchase Order Terms received at the Retail Outlet.
 - (ii) Handing over drawings and other related documents, if any to LANKA IOC PLC representative at site to enable to undertake its scope of work.
 - (iii) Verification of completion of work falling under LANKA IOC PLC scope such as civil, mechanical, piping & electrical work and confirming same to be in line with that recommended by manufacturer for installation of Dispensing Units.
 - (iv) Confirming Lanka IOC PLC the schedule date of equipment installation and commissioning.

18.0 AFTER SALES SERVICE:

- 18.1 Vendor should assume complete responsibility of satisfactory performance of the equipment and after sales service of the equipment. For this purpose, the vendor shall ensure a suitable net work (maintain the technicians) at Colombo, Matara, Kandy and Anuradhapura cities who shall be capable of attending for the requirements of Supervision of Commissioning, Warranty Services.

19.0 PATENTS AND ROYALTIES:

- 19.1 The Tender must enclose copies of pattern approvals from Weights & Measures department of Sri Lanka for Model / Models of DUs to be supplied.
- 19.2 In case, the Pattern approval for models of DUs being offered under the contract are not available then, the Vendor shall enclose written undertaking (to be furnished on

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Letterhead of the Vendor Firm) in the tender documents (Technical bid) to the effect that Pattern approval for the DUs shall be obtained from Weight & Measures Dept, Sri Lanka within 2 months from the date of supply of the DUs.

- 19.3 Tenderers to note that all the costs involved in obtaining pattern approval for the make/ models of the DUs being offered shall be part of the rates quoted in the tender and no separate payment on this account shall be entertained by LIOC.
- 19.4 The vendor shall guarantee the availability of spare parts for at least 10 years after warranty period.
- 19.5 Vendor should advise in advance the pre-installation requirement so as to enable purchaser to carry out the basic works for installation of the equipment and arrange complete erection work. However, vendor should depute their personnel for supervision of erection & commissioning works without any addl. cost to Lanka IOC.
- 19.6 Tenders will be closed at due date & time and opened immediately thereafter. Tenderers are allowed to be present at the time of opening of the tender. LIOC shall not be responsible for delays in tenders sent through post OR courier, etc. Tender received late are liable for rejection.
- 19.7 The Lanka IOC PLC does not bind itself to accept the lowest or any tender or portion of it and has the sole discretion to reject any or all the tenders.

20.0 THIRD PARTY INSPECTION:

- 20.1 Third Party Inspection Services: The dispensing units to be supplied under the contract as per approved QAP shall be subject to inspection by Third Party inspection agency. The successful tenderer shall choose the TPI agency as per the list provided in the tender document.

21.0 VENDOR'S SCOPE OF SUPPLY & SERVICES DURING WARRENTY:

21.1 Supply of components:

- 21.1.1 Supply of all the mechanical, electrical & electronics components of the Dispensing Units i.e Motors ,Pumping Units, Calibration Units (Metering Unit), Key pads, Pulsers, all the Electrical/Electronic Components, IO cards, Register Units , Display Cards, boot, nozzle covers, nozzle adapters & reducers etc except hanging accessories (nozzles & hoses only) shall be covered in the scope. The vendors must note that the spares to be used for replacement during the warranty period shall be strictly from OEM Vendors.
- 21.1.2 Necessary inventory of spares for preventive and breakdown maintenance shall be maintained at all points of time in order to provide effective and efficient services without losing time.
- 21.1.3 Only Pump body (Sheet metal) is excluded from the purview of this contract. In case painting of the body is required, the same shall be taken up at the cost of LIOC.
- 21.1.4 All the repairs attributed to the accidents are also outside purview of the contract. Electrical cables going to the Units are also outside the scope of contract.

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21.1.5 Fee payable if any to Weights and measures department is not covered in the contract. However, services towards calibration/ re-calibration shall be part of the scope of services under the contract.

21.2 Services:

21.2.1 The contractor shall maintain a call centre/ dedicated person with a designated telephone to be operated by responsible personnel for receipt and logging of all complaints to be lodged by the dealers/ sales officers/ office of LIOC.

21.2.2 Contractor shall maintain the technicians at Colombo, Matara, Kandy and Anuradhapura cities who shall be capable of attending to complaints on mechanical, electrical and electronics of dispensing units. In case required, the contractor shall position additional technicians at other areas also if desired by LIOC at no additional cost.

21.2.3 Monthly Summary Report of all complaints received during the month indicating date and time of receipt of the complaint, date of resolving of the complaints, name of technician who has cleared the complaint etc shall be submitted to LIOC.

21.2.4 During services being offered, general attempt shall be made to repair the dispensing units by replacing components but in case of frequent and repetitive complaints of same nature, the units shall be replaced without any loss of time.

21.2.5 Each complaint shall indicate clearly the nature of complaint and service rendered to resolve the complaint. Service completion report of all complaints attended at the petrol station shall be prepared by the technician and signed by the dealer for acceptance towards resolution of the same. The service completion reports shall be submitted on monthly basis along with submission of bills.

21.2.6 Each preventive and breakdown maintenance at the petrol shed shall be supported by a service completion report which shall be signed for acceptance by the dealer or representative of the dealer for acceptance towards resolution of the complaints.

21.2.7 Replacement of parts from one dispensing unit to the other is strictly prohibited. Any such incidents brought to the notice of LIOC by dealers/ sales officers shall attract strict measures by LIOC.

21.2.8 Preventive maintenance of each nozzle shall be carried out at least once in two months and service report of the same shall be prepared to be acknowledged by the dealer. Such reports must be submitted on once in two months basis to LIOC.

21.2.9 The number of nozzles provided in the schedule to be covered by Comprehensive AMC is tentative. Payment for nozzles on monthly basis shall be restricted to the actual number of nozzles available in the field and under use for a given month.

21.2.10 The number of nozzles provided in the schedule to be covered by Comprehensive AMC is tentative. Payment for nozzles on monthly basis shall be restricted to the actual number of nozzles available in the field and under use for a given month.

21.3 TIME LIMITS TO BE FOLLOWED FOR PROVIDING COMPREHENSIVE AMC:

- a. All dispensing units with nozzles located within Colombo municipal limit area (Colombo city + locations within 25 Km from Colombo) to be attended for breakdown

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maintenance within 24 Hours from the time of complaints lodged by Dealers of petrol sheds/ Field officers or Head office of LIOC.

- b. All dispensing units located beyond Colombo Municipal limits but within 100 Km from the city of Colombo to be attended for breakdown maintenance within 48 hours from the date and time of complaint.
- c. All dispensing units located beyond 100 km from Colombo Municipal limits to be attended for breakdown maintenance within 48 hours from the date and time of complaint.
- d. Each dispensing unit included in the comprehensive AMC must be attended to for preventive maintenance at least once every 3 months.

21.3.1 In case the contractor fails to adhere to the time limit specified above or if the performance is considered not satisfactory, the LIOC will be at liberty to terminate the contract by giving 2 months notice and get the same executed by any other agency entirely at the cost and risk of the original contractor and in line with provisions available under tender.

**SR. VICE PRESIDENT (ENGG.)
LANKA IOC PLC,**

I / We confirm that I / We have gone through the above conditions carefully and agree to abide by the same

Signature of Tenderer :

Name :
Title :
Address :
Date & Seal :

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Specification for all types of Dispensing units : General			
S N	Technical Specifications		Vendor Conformation (Yes / No) (If no, with comments)
1	Basic Models	Suitable for Unleaded Petrol and High Speed Diesel (plain or mixed with 10% ethanol)	
		Dispensers—Suction Type (Mono/Duo/ MPD) In case of dispensers, Scope shall be complete as defined in the various parts of this technical document till the shear valve .	
2	Configurations	Duty- Standard / Heavy / Standard &Heavy (Duo Suction) / Super Heavy Duty Suction / Pressure type Mono and Standard & Heavy (Duos Pressure)/ Multi Product Abbreviation {MPP -Multi Product Pumps (Suction Type), MPD-Multi Product Dispensers (Pressure Type)}	
3	Structure	Preferably rectangular in shape High Hose Version, with hose hanging from the Canopy Overall Height to be between 2100 mm and 2400 mm.	
	Models		
4	Mono's	Island oriented Pre set Mono pump with Electronic Register Assembly, displaying sale amount, quantity, density and rate along with side mounted Thermal Printer.	
5	DUO's	Island oriented Pre set DUO pump with Electronic Register Assembly with independent display for each nozzle per side, displaying sale amount, quantity, density and rate along with side mounted Thermal Printer one for each nozzle.	
		DISPENSING PUMP	
		2Px2Hx4D DUTY - STD : STD – Suction	
		2Px2Hx4D DUTY - HEAVY: HEAVY –Suction	
		2Px2Hx4D DUTY - STD : HEAVY–Suction	
6	Multi Product	Lane oriented, Standard duty Pre set pump with Electronic Register Assembly, displaying sale amount, quantity, density and rate along with Thermal Printer one each ERA door.	
		MPD's	
		2Px4Hx2D DUTY - STD – Pressure (2 STD : 2 HEAVY)	
		2Px4Hx4D DUTY - STD – Pressure (4 STD)	
		3Px6Hx2D DUTY - STD– Pressure (4 STD : 2 HEAVY)	

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7	Units Of Measurement	Litres	
8	Humidity	maximum 95%	
9	Ambient Temp.	-10° C to +55° C.	
10	Electricals	All electrical fittings, relays, including switches, junction boxes and glands etc. shall be of standard make and suitable capacity preferably ISI approved. The above, if located in Div. I hazardous area, should be housed in CCOE/Atex approved flame proof enclosures (Exd/Exrn). Vendor to submit with Bid all ATEX certificates as well as CCOE approvals for all electrical and electronic components and sub assemblies located in hazardous Zone 1 area of Dispenser Housing. Reference of all such approvals must be engraved clearly on all approved items.	
		The incoming power supply cabling to Motor & Electronics shall be totally independent Cu cables.	
		Internal wiring shall be of high grade Copper wire and conforming to ATEX/CCOE, if used in hazardous zone.	
		The lower power junction box terminating the power cables shall have two entries fitted with Exd cable glands for separate inlet / outlet connection for the Motor and ERA.	
		The Incoming Power Junction Box shall be separate from the Communication Junction Box.	
		All testing/ inspection parameters within scope of 3rd party inspection shall be conducted at min. 220 V AC. However, ERA system to be protected for 130 to 290 V fluctuation.-Motor to withstand 180 V to 250 V fluctuation. Party to provide inbuilt protection within DU to take care of these mentioned voltage limits. It is further elaborated in ERA section	
		Specific Internal surge protection device of suitable capacity must be provided for protecting electronic computing head from fluctuations and high voltage surges above the testing norms specified below. Within the surge test norms the DU should work uninterrupted in spite of the surges. The protection provided in the dispensing units for motor as well as electronics against surges/spikes shall be specified.	

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		The evidence of protection of ERA against the various interferences shall be provided from a Government approved lab ERTL / SAMEER /CDAC as per the tests & norms specified in the ERA section.	
		Appropriate provision for Earthing shall be provided within the dispenser, with provision to connect to the site earth pit. All key elements like Pulsar, Motor, ERA, body including every gasketed elements like the ERA doors etc shall be specifically wired / linked to the main earthing point on the DU.	
		Motor Power supply in-commer shall be thru a 2 pole MCB of suitable rating (recommended minimum 10 A, 250 V). Relay (SSR) driven switching desired for Motor.	
		In addition to the MCB, a RCCB of suitable capacity shall be provided within the DU at each power incomer.	
11	Emergency Stop Button	The activation of the emergency Stop Button must cut off the Power to the DU. The Button to be provided at a convenient location easily accessible from both sides in an emergency. Emergency Stop Button –The activation of the Emergency Stop Button will stop the fueling from the dispensing unit.	
12	INGRESS PROTECTION OF STRUCTURE :		
	For Electronics Enclosure	IP – 54 for Electronics enclosure	
	For Hydraulics Enclosure	IP – 23 for Hydraulics enclosure	
	Vibration	Pump should withstand the rigours of transportation and tough operating conditions in the field.	
13	SHEET METAL & FIXURES		
	Painting	Panels and enclosures should be powder coated to withstand hostile corrosive climate. The colour scheme and other graphics/printing should be as per IOC's approved colour scheme for dispensing pumps.	
	Surface preparation :	Surface preparation to be by 7 tank pre-treatment process.	
	Method of painting :	Powder coating,	
	Coating	Minimum 50 Microns	

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	thickness :		
		Please note that the powder coating plant, if not under possession of DU vendor, shall be ISO 9001:2000 certified and all process parameters maintained as per IS 13871:1993, with latest revisions if any.	
	Finish :	Glossy Finish	
	Field Painting	Please specify recommended field maintenance painting system.	
	GRAPHIC ART WORK	Artwork / Graphics should be screen printed on approved makes of Gasoline resistant Vinyls with suitable UV overcoat in approved colours. Product stickers also should be made using the same material in approved colour. 5 Year Warranty should be submitted for all the Artwork / Graphics. Warranty Certificate must be signed and sealed by the authorized representative of Vinyl manufacturers. Prior approval of Artwork should be taken from IOC. Process of Artwork must be as approved by the manufacturer and IOC	
14	MEMO PRINTER	.Low noise thermal printer .Easier maintenance with self diagnosis .Equipped with Saw tooth Cutter OR Auto-cutter with option of full/partial cut .Supports text & graphic printing .Easy paper roll installation .Low Paper/No Paper sensor .LED Indication for communication status/errors	
		The Printer should allow by keypad command one re-print of the ticket; the second copy shall be marked as "COPY/DUPLICATE".	
		The required details of ticket/cash memo is in the printer specs.	
		Vendor to provide details of after sales service support available in Sri Lanka. If after sales service support is from an Indian contractor or contractor of an Indian vendor, a copy of agreement with the same Indian contractor to be provided for the duration of the warranty.	
15	SPARES	Availability of spares.	
		Vendor shall be in a position to supply or provide spares on need basis after completion of warranty.	

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		The vendor shall clearly undertake and declare that all parts, components and sub-assemblies of discrete, proprietary and non-common assemblies such as Electronics, Pulsars, Metering Units, Pumping Units and Air separator, PRVs forming part of the DU manufacture or its maintenance activity in the field shall be the Intellectual Property of the vendor and manufactured, quality assured and supplied under the direct intellectual control of the vendor.	
16	Glass	Toughened glass with rubber beading to ensure the complete unit water proof & prevent edge corrosion of the sheet metal	
	Thickness Type	4 mm (min.)	
17	Approvals	All models of Dispensing Pumps shall have valid approval of	
	Safety	Chief Controller of Explosives following Approvals – ATEX/UL/KHK and CCOE, OIML and Weights & Measures or any other relevant law of the land, which ever is applicable.	
	Measurement	They must also carry the relevant OIML certification	
		In addition, the models must also carry approvals from the Department of Weights & Measures, Sri Lanka (Model Approval) and also relevant licenses to Manufacture, Sell and Repair DUs issued by the respective State Controller of Legal Metrology of the state of manufacture. The manufacturer shall also apply for and obtain relevant licenses to repair their DUs from the Controllers of Legal Metrology of states where such a repairer's license is mandatory. Copies of all such licenses obtained so far are to be enclosed with the bid.	
		The bidder's application seeking Model approval from WM will clearly mention that "In-built automation communication protocol shall not have any influence or ability to change any WM controlled parameter of DU". The various automation features of the Electronic Fuel Dispensing Pump covering control and retrieval of transactional data from the DU by automation host machine should be reviewed.	

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	Specify approval references with validity and enclose all copies.	Vendor to validate all listed approvals (As per the Law of land) from time to time and indemnify LIOC for any loss arising out of non renewal/adherence of such statutory approvals/ laws of the land.	
		In case there is an amendment required in the approvals to meet the mentioned specifications the same shall be obtained & provided before the closure of the tender	
18	Packing	Pumps to be covered with polythene bags and packed in wooden boxes or corrugated boxes or equivalent, with covering of suitable transparent plastic sheet to withstand multiple loading/unloading/handling and transportation. In case of wooden box packing/corrugated box, additional polythene cover shall be placed on top of packed pumps covering minimum 300 mm on all four sides to prevent any ingress of water from top edges/any other side.	
19	Addl. points	As and when any card/s are changed, same should be informed by the vendor to IOC on weekly/Fortnightly basis or whenever required by IOC.	
		Vendor to inform IOC with explanatory notes whenever any software modifications carried out on monthly basis/whenever required by IOC.	
20	Access Control to Hydraulic & Electronic Panels/sections.	Should be independent of the DU Electronics	
21	FOUNDATION FRAME CUM TEMPLATES	Supply of the foundation frame is not in the scope of the DU Vendor but the foundation bolts will be supplied by the DU vendor. However, it is the responsibility of the DU Vendor to check the alignment before installation of the DU. Before commissioning of the DU, IOC will intimate the DU vendor, who in turn will depute their service engineer during the commissioning / installation of DU at the respective Retail Outlet. No separate payment will be made for this activity.	
22	FLEXIBLE CONNECTIONS	All the models of the Dispensing Pumps offered shall have a suitable flexible connector at the inlet of the PUMP.	
23	GAS ELIMINATION DEVICE	Must confirm totally to OIML 117 & 118 including latest approvals. All tests for Gas Elimination Device must form a part of pattern approval test including efficiency of Gas Elimination Device	

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		Vendor should have a FTP link on their website, which would give a detailed daily status on dispatch status of pumps.	
		Metering unit shall be tested as per OIML STANDARD R-117 & OIML standard R-118.	
		Testing of DU with ERA assembly: IOC may do the testing of DU with ERA assembly on random basis. Due to constraints at ERTL premises, shorter version of DU shall be permitted.	
		DU protocol may required to be shared for communication with retail automation system with NDA signed by LIOC, if required.	
		Simulator of each model of the DU Successful Tenderer(s) to provide one number simulator of each model of the DU (to be supplied by them) to LIOC free of cost on returnable basis any time during the currency of the contract.	
24	ERA HANDLING OF MOTOR	Environmental Type testing shall be carried out at ERTL / Govt Approved - NABL Certified Lab for each model with the entire dispenser i.e. with liquid dispensing provision	
		Above certified environmental testing report for each model ordered under this order shall be submitted. LIOC/ TP1 reserves the right to witness the inspection/testing	
		Internal wiring shall be of high grade Copper wire and conforming to ATEX, CCOE approved makes, if installed in hazardous zone. Cables conforming to European standard with CE certification is acceptable	

Technical Specification for Thermal Printers

	Item description.	Specification	
	General features	Low noise thermal printer, easier maintenance with self diagnosis Equipped with auto-cutter Supports text & graphic printing, easy paper roll installation	
	Make / Model	Party to specify	
	Printing method	Direct thermal line printing	
	Label width	50 mm – 79.5 mm (party to specify)	
	Character per line	32	
	Print font ASCII code Print graphic font	12 X 24 dots, 1.50 mm (W) X 3.00 mm (H) 24 X 24 dots, 3.00 mm (W) X 3.00 mm (H) .	
	Dimensions (WxDxH)	Party to specify	

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	Effective print width	Party to specify	
	Print speed	50 mm /sec (min)	
	interfaces	RS 485 for future connectivity to automation system (Dispenser to have separate communication ports for printer and automation link up)	
	Power supply	Built in power supply or external AC adaptor (input supply in the range of 180 V AC to 260 V AC)	
	Print density	384 dots per line	
	Print head duration	50 km (approx.)	
	Operating temperature	0 to 50 deg C	
	Paper status warning	Status warning on no paper/less papersun	
	Auto-cutter	Saw tooth cutter to be provided.	
	The printer output should include the details	Name of the outlet Address & Tel no. Date/ Time Vehicle no. (alpha numeric) Bill No for each transaction with reset button LST no. CST no. VAT no. Product Rate – Rs. per litre Volume – Litres Amount – Rs. Thanks Come/Visit Again. Printer should be able to print additional information in the receipt for density, pump /nozzle no. & attendant identification from automation system as and when required. Presently these information may not be printed. DUs should have programmable facility to print single or duplicate receipt for same transaction. Duplicate will have " Duplicate Copy " printed at TOP.	
	Print output on demand	Print output on demand on completion of transaction through keypad on FRONT/REAR or Nozzle Boot Side of DU	
	Printer enclosure	Printer enclr. to protect the equipment from moisture/dust	
	Additional features required	Support printing from automation system. Scalable character when connected from automation system Two indicator LEDs (Power & Error) Two panel buttons (feed & paper cut) Mountable on a DU / stand mounted	
	Specification of all types of Dispensing Units - Mechanical parts		
	Pumping Unit		

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	Type	Rotary positive displacement Vane or Internal Gear type with suction strainer, built in or additional check valve, integral air separator and adjustable by-pass valve. Strainer shall be of removable type with mesh of maximum 100 micron size. Mesh material to be of non-corrosive metal and be non-reactive to products for which the DU are in use. Design of Pumping Unit and location in housing to ensure that no product spills over any electrical component, Motor in particular, while carrying out any servicing related to Suction Filters, By-pass Valves and Rotor Housing. Suitable drip trays with metal tubing outlets shall be provided, as required, to lead such spills to the outside of the pump enclosure. Vendor to specifically confirm compliance with this feature. Position of drip tray should be at the bottom of the dispensing unit.	
		Each pumping unit must have a distinct and unique identification serial numbering (embossed) available for physical verification of Pumping Unit and Metering Unit should have unique identification sr. no. with non-alterable type.	
	Suction Port location	To be located such that it facilitates free use of tools to fasten/unfasten suction bellow coupling	
	Suction Connection	Suitable for 50 mm nom. bore pipeline. The dispensing pump shall be fitted with suitable flexible stainless steel bellow connector at the pump inlet and a counter flange with 2" BSP inlet threading for connecting to inlet riser pipe.	
		For Dispensing Pumps Shear valve must be included and the level of the shear plane shall be same as the bottom of the DU frame.	
	Suction length in Mtrs.	Minimum 30 meters of Suction Pipeline with factory test bed conditions.	
	Suction lift in Mtrs.	Minimum 4.0 meters with factory test bed conditions. (All Dispensing Units offered for inspection shall be tested under these minimum conditions.)	
	Discharge side 2nd stage filter after Pumping Unit	Position shall be just before entry of liquid to Metering Unit: This Pre- meter filter of 80 micron (max.) size for HD & SD. Mesh material to be of non-corrosive metal and be non-reactive to products specified in Sr. No. 1 above.	

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	Pressure rating of system	The pump should be designed such that the maximum system pressure does not exceed 3.5 kg/cm ² . All flanged joints, pipe fittings and liquid carrying components shall resist leakage at internal pressure of 3.5kg/cm ² as per ATEX norms Vendor to provide in-house facility to test on 100 % basis and demonstrate on random basis to LIOC or its designated inspecting agency. IOC / its representative will witness type test and routine test for the castings at the sub-vendor's premises on sample basis.	
	Pressure Gauge Adaptor	1/4" or 3/8" or M8/M10/M18 tapped and plugged entry to be provided for pressure gauge in Pre- Meter section of hydraulic system within pump enclosure.	
	Air/Vapour Separation :	Under normal site and installation conditions, the air/vapour separation system shall efficiently separate and purge air and vapour to ensure accuracy of the metering system within the limits of accuracy specified in metering section. The air separation shall be 100%	
	Material of Composition	Body– Cast Iron or aluminum	
		Rotor/stator - cast iron	
		Vanes –Carbon / graphite compounds	
		Bushes – PTFE impregnated carbon/graphite or bronze	
	Pumping unit linkage to motor	Belt driven with suitable arrangement for belt tensioning	
	Rated Discharge (LPM Litres per Minute)	Minimum 35 LPM for Std. Duty 70 LPM for Heavy Duty, 120 LPM for Super Heavy Duty	
	Pressure setting of by pass valve in nozzle shut condition	Standard Duty – 1.2 to 2.0 kg/cm ² Heavy Duty– 1.6 to 2.8 kg/cm ² Super Heavy Duty– 1.6 to 3.5 kg/cm ²	
	Dry Vacuum reading	Min 10" to 15" Hg	
	Pumping unit OIML	The model of the Pumping unit must be referred in the OIML approvals Documentary evidence shall be submitted	
	METERING UNIT ASSEMBLY		
	Type	Positive Displacement Piston Type/LOBE Type. Metering Unit shall be designed and constructed so as to be free of any external ratio gears affecting accuracy. Each metering unit must have a distinct and unique identification serial numbering (embossed) available for physical	

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		verification. Pumping Unit and Metering Unit should have unique identification sr. no. with non-alterable type. Metering unit should have 2 MMQ or better capability at 10 LPM. OIML of accredited lab certificate to be provided by the bidder with certification covering 1 million litres of actual fuel testing.	
	Max. permissible error	While Stamping as well as verifications the DU shall be as per specification of WM guidelines. During verification both at vendors plant and retail outlet: (within +/-0.3%) +/-15 ml in a delivery of 5 litres at a delivery rate of 10 lpm to the rated discharge of the SD pump/dispenser. +/-60 ml in a delivery of 20 litres, at a delivery rate of 10 lpm to the rated discharge of the HD pump/dispenser. Metering unit shall be tested as per OWL R 118 –1.	
	Meter Calibration	Electronic calibration to be incorporated. Appropriate WM approvals to be to this effect.	
		There shall be specific information stickers on the DU indicating e.g. "Sealing Points - Meter with Pulsar & Electronic Calibrating Point" "Electronically Calibrated DU - No Calibration on Meter". DU Vendor should provide sealing procedure.	
	Material of construction:	Meter Body and Covers – Aluminium pressure die casting	
		Cylinder Liners – Stainless Steel (slitless)	
		Piston Cup – PTFE compound	
	Pressure Resistivity	All rubber seals shall be compatible with fuel blended with 15% ethanol and all such seals shall be of Viton, if in contact with the product. Castings to withstand internal hydrostatic pressure of 3.5kg/cm ² for 5 minutes without any evidence of leakage or physical damage as per ATEX norms. Vendor to provide in-house facility to test all such castings on 100 % basis prior to assembly and demonstrate on random basis to LIOC or its designated inspecting agency.	
	Specify detailed principle and mechanism of fluid measurement employed	Vendor to specify.	
	Sealing Arrangement	To include single wire sealing of Metering Unit as per stipulation of Weights & Measures Dept.	

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		The DU should be capable of handling new tamper-proof sealing arrangement approved by W&M dept. Vendor to submit detailed schematic arrangement of sealing employed to cover Metering Unit along with the Pulsar. There shall be specific information stickers on the DU indicating e.g. "Sealing Points - Meter with Pulsar, MB, Electronic Calibration Point" "Electronically Calibrated DU - No Calibration on Meter".	
	Volume Calibration	This shall be done by Electronic Calibration only & so no provision on meter to. calibrate mechanically to be provided, refer the ERA section for details	
	Material of Construction	CRCA / SS Sheets for panels & Frames	
	Specified thickness	Specified thickness of CRCA grade steel sheets as per IS 513 or its foreign equivalent for imported pumps.	
	Load bearing frames	As per IS 513 or equivalent (recommended min 2.0 mm nominal thick).	
	Base Frame	As per IS 513 or equivalent (recommended min 3.0 mm nominal thick)	
	Lower and Upper Panels	As per IS 513 or equivalent (for non-load bearing recommended min 1.0 mm nominal thick)	
	Fasteners and hardware :	All fasteners and hardware to be zinc plated and passivated for weather protection.	
	Filling Cap Holder	To be provided near the nozzle boot to place the vehicle fuel cap and prompt operator to return same to vehicle fill pipe after delivery.	
	HOSE	Single braid, Hardwall, (High Tensile Steel wire braided) petrol/diesel / 10% ethanol or methanol mixed petrol resistant hose, 4 mtrs. long, IOC Logo should be embossed/printed as per IOC requirement on each hose.	
		Coloured, if specified later and fitted with 360° single plane swivel arrangement at nozzle end. Hose conforming to EN:1360 of 2005 or equivalent and ATEX/UL approved.	
	Bore Diameter:	Standard Duty: 19 mm bore	
		Heavy Duty : 25 mm bore	
	Color of Hose	BLACK COLOUR hoses for all models of Dispensing units	
	Make	GATES / PARKER (MARKWELL) / GOODYEAR / Soni Rubber Product India makes only allowed	

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	Testing	All Hose Assemblies (Hose and End Fittings) shall be done and tested at works prior to dispatch. No such work shall be undertaken at site or by staff not duly trained for same.	
	Markings	The following information shall be clearly marked on the hose surface in intervals of one metre:	
		Name or brand of manufacturer,	
		Relevant standards,	
		Year of manufacturer,	
		Product handled shall be identified by a sticker over the hose at both ends	
	Test Certificates	A copy of the manufacturer's batch test certificate for each batch of hoses that will be supplied with Dispensing Units must be made available as part of QA Plan.	
	BREAK AWAY COUPLING	ATEX or UL / KHK approved breakaway coupling of "Re-usable" and "Re-connectable" at site type of suitable size shall be mounted at the TOP canopy end with an Hose	
	Makes	OPW(US/India)/ ZVA/ TATSUNO / EMCO WHEATON make. A Breakaway coupling manufactured by OEM of DU supplier to LIOC can also be provided having due approval of ATEX/UL/KHK.	
	NOZZLES	Automatic cut-off Nozzle, pressure sensitive type with ATEX or UL approval	
	Makes	Shall be of OPW(US) /OPW(India)/ZVA / EMCO WHEATON / TATSUNO /Catlow Make. No other make shall be acceptable in this tender.	
		Specify make and country of origin. Also submit relevant approvals with bid.	
		Specify the make, model no. & part no. of nozzles to be supplied.	
	Size :	Standard Duty : 3/4" threaded inlet	
		Heavy Duty : 1" threaded inlet	
	Spout OD –	13/16" for Std. Duty	
		15/16" & 19/16" for Heavy Duty	
	Material of Construction :	Internal parts shall be made of corrosion proof material. All 'O' Rings and Gaskets should be of "VITON" make only.	
		Spout - Aluminium or Brass	
		Body - Die Cast Aluminium	
		The following features should also be available :	
		i)Nozzles shall be light weight and easy to operate.	
		ii)Nozzles shall be suitable for all types of Fuels including Blended Fuels for which the DU are in use.	

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		iii) Nozzles shall have 'Hold Open Device'.	
		iv) Nozzles shall have replaceable spout.	
		v) Nozzles shall have Two Stage lever mechanism for +ve shut off.	
		vi) Nozzles shall have KHK or UL-or ATEX CE approval.	
	SIGHT FLOW INDICATOR	Sight flow indicator with spinner shall be ATEX or UL or KHK approved.	
		Any other make meeting same criteria shall be offered at technical bid stage and approved by LIOC prior to placement of order.	
	RUBBER COMPONENTS	Compatibility of rubber compounds to products dispensed :	
		All rubber soft seals shall be manufactured in Viton or equivalent grade compounds to resist deterioration in size or damage to composition when in direct or near contact with the product to be dispensed, such as petrol/diesel/ min 15% ethanol mixed petrol. Vendor shall list out all such seals and certify use of non-permeable compounds at technical bid stage. Individual product carrying assemblies holding ATEX or UL approvals, such as Solenoid Valves, Breakaway Couplings, Hose and Auto Cut-off Nozzles shall be exempted from this list. Ethanol Blending is 15% and accordingly bidders may design the components.	
	Provisions for Tag Reader fixing	Proper provisions for Tag Reader fixing to be made. 2 Blanking plates to be provided on each side for Dual/ MPD and 1 Blanking plate to be provided on the side for Mono DU. Such plate to be of 150 mm x 150 mm dimensions, should be removable to enable mounting of tag/ card readers with in the same area also specified as Div. 11 safe area by CCOE/ approving agencies and at a minimum height of 1200 mm from the ground level, Vacant space of 200 mm wide, 150 mm height and 150 mm deep to be provided behind such plate to incorporate CRIND / RFID requirement in future.	
	Protection against interference	Vendor's internal QA procedure must consist of among others, carrying out the type tests specifically for the ERA Box of each model as per the following IEC procedures: The Testing norms to be as mentioned below (01ML - 8117) Testing reports from ERTL/ SAMEER / IIT/CDAC or equivalent government approved NABL certified lab shall be provided for each model ERA of this	

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		Order (Type Test approval) NOTE: IOC will Test any DU (both Hydraulics & ERA) and if found not meeting the parameters. The lot will be rejected and party will have to remove the same at their cost.	
	RUBBER COMPONENTS	Compatibility of rubber compounds to products dispensed :	
Specification of all types of Dispensing Units - Electronics parts			
	Electrical Supply	230 Volts 50 Hz. Single phase. Expected voltage fluctuation under installation is 170 volts to 290 volts AC.	
	Operating Environment	Dispensing unit shall be capable of operating in tropical conditions and in open atmosphere without overhead canopy.	
	FLP MOTOR	Suitable for 230 Volts, Single Phase, 50 Hz, min 0.75 HP, Continuous duty, flameproof I explosion proof, with thermostat protection.	
	BIS Certificate	Motor shall be designed to perform as per IS 996 (1979) and constructed to conform to the requirements of IS: 2148 (2004). RP Motor shall conform to the requirements of IS-2148 (2004). Latest revision of the BIS specs to be incorporated if any.	
	Approvals	They shall carry the ATEX approval and such approval/Motor shall be endorsed by CCOE/PESO for use in dispensing units. Approvals of CMRI / CCOE / ATEX to be embossed on Name Plate.	
		Attach CMR1 report / ATEX / CCOE Approval certificates for FLP	
	Voltage Range	Motor to be capable of operation from 160 volts (-5%) to 290 volts (+5%) and shall withstand 350Volts AC in non operating state.	
	Capacity	To withstand 75 Starts/Stops per Hour	
	Insulation	Motor winding must comply with class F insulation range of upto 155 deg. C. Thermostat rating to be 135 +/- 5 deg. C	
		Following details shall be furnished	
		KVA Input ; KW Consumed ; Power Factor	
	Protection	The Motor shall be protected for Voltage fluctuations 170 to 250 V	
	Power Switch	Motor Power supply to be thru a 2 pole MCB of suitable rating (recommended minimum 10 A, 250 V). Relay/SSR driven switching desired. Additionally a RCCB of suitable capacity shall be provided at each power incomer. MCB and RCCB of appropriate rating are	

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		required for the ERA assembly.	
	Maximum temperature rise of motor	Motor winding must have Class F insulation (155 deg.C). Latest revision of the BIS specs to be incorporated if any.	
		Thermostat rating: 135 +/- 5 Deg. C to prevent temperature rise affecting motor winding	
		Vendor to certify use of Class F insulation on Motors supplied and demonstrate to LIOC or their designated TPIA the operation of Thermostat at rated "cut off temperature in "locked rotor" condition. Inspection of insulation of motors shall be carried out at sub-vendor's premises.	
		The operating temperature class to be min T3 (+55 deg C/ -10 Deg C)	
		Motor RPM - 1440 at no load	
		Current (Amps)at full load – 8.0 Amps (Max)	
	Electronic Register Assembly	Expected voltage fluctuation 170 volts to 290 volts AC. Electronic circuit should be protected for this input voltage fluctuation. The Incomer to be thru MCB & RCCB of appropriate rating Inspection of insulation of motors shall be carried out at sub-vendor's premises. ,	
	Protection against interference	Vendor's internal QA procedure must consist of among others carrying out the type tests specifically for the ERA Box of each model as per the following IEC procedures:	
		The Testing norms to be as mentioned below (OIML - R117) Testing reports from ERTL/ SAMEER / CDAC/IIT or equivalent government approved NABL certified lab shall be provided for each model ERA of this Order (Type Test approval) NOTE: IOC will Test any DU (both Hydraulics & ERA) and if found not meeting the parameters the lot will be rejected and vendor will have to remove the same at their cost.	
		Electro Static Discharge Test ESD IEC Procedures - IEC 61000-6-1 standard IEC 61000-4-2 Testing Norms - ESD - 6 KV Contact Discharge, 8 KV Air Discharge Latest revision of the IEC specs to be incorporated if any.	

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		Radiated EM Field IEC Procedures - IEC 61000-4-3 Testing Norms - 26 MHz - 1000 MHz, 80% AM @ 1 KHz, 3V/m (26 MHz- 500 Mhz) & 1 V/m (500MHz-1000MHz). Latest revision of the IEC specs to be incorporated if any.	
		Electrical Fast Transient Test IEC Procedures - IEC 61000-6-1 standard IEC 61000-4-4 Testing Norms - 2 KV Amplitude. Latest revision of the IEC specs to be incorporated if any.	
		Surge Test : IEC Procedures - IEC 61000-6-1 standard IEC 61000-4-5 Testing Norms - Line to Line - 1KV, // Line to Ground - 2KV. Latest revision of the IEC specs to be incorporated if any.	
		d. Voltage Interruptions and dips IEC Procedures - IEC 61000-6-1 standard IEC 61000-4-11 Latest revision of the IEC specs to be incorporated if any.	
		Testing Norms - Nom. Voltage(230V)+ 10% and Nom. Voltage (230V) - 15% Short Time Voltage Reduction: 100% voltage interruption for 0.5 cycle, 50% voltage interruption for 1 cycle	
		Conducted RF IEC Procedures - IEC 61000-4-6 Testing Norms - 0.15 - 80 MHz, 3 V/m, 80% AM @ 1 KHz	
	Cabling	Cabling to the electronic system ERA within the pump shall be independent of the motor power supply right from the incoming mains Junction Box. This incoming power shall be thru an ELCB & MCB of suitable capacity.	
	Pulsar	a) The components such as Pulsars must be flameproof / explosion proof if they are inside the hazardous Zone 1 area of the Dispenser.	
		b) They shall be Atex or UL approved and carry the approval reference of CCOE/PESO for use in Zone 1 of Dispensing Units. Certificate proof for the same shall be furnished by the Vendor	
		c) The Pulsar shall be integral part of Metering Unit. However, LIOC may accept top mounted with common drive shaft coupled between metering unit and pulsar without any gears.	
		d) Pulsar to have inbuilt check for uni-directional rotation	

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		e)PULSAR TYPES Only magnetic sensor with analog output inaccessible outside of sensor chip is to be provided.	
		ii)Pulsar with magnetic sensors {Hall effect or Magnetoiresistive sensors} The Pulsar must have features to make it tamper proof, such as the sensor embedded in a proprietary IC giving encrypted output with no access to the actual sensor outputs, with warning signal and stoppage of pump for failure of the sensor. Any tampering/opening of the above Pulsar types should result in stopping the DU. It can be operated now only after authentication through OTP Or the Pulsar must be made non openable by appropriate hermetical sealing it with metering unit. Any defect in pulsar will lead to change of the pulsar cum metering unit. The pulsar and the metering unit for the Magnetic sensor are not integrated, but seperate. f) <u>The Pulsar communication to ERA</u> Pulsar communication to ERA shall be secured & encrypted with minimum 128 bit encryption. The encryption should be there in all intelligent electronics cards (e.g. Key Pad, Display, control card (s) and Pulsar). Necessary certification from globally accepted agencies like VERISIGN or equivalent to this effect to be provided when required by LIOC.	
		g)<u>Securing Pulsar against unauthorized opening at retailer premises:</u> i) The Pulsar should have a life cycle of at least 10 years. In case of any malfunction, the Pulsar should only be replaced, and not repaired at retailer premises. ii) If Pulsar is opened for any reason, it should send a signal to the controller and deactivate the DU. Such events should be logged in the non-volatile memory of the controller with timestamp. The DU can now be brought back to, normal operation only by authentication from the Vendor's server (through one-time- password or OTP). h) <u>Recommended/Suggested Hardware features in ERA for Securing the Pulsar against unauthorized opening:</u> A spring-loaded switch can be kept pressed when the Pulsar is closed (or a mesh on the PCB of the Pulsar board). The switch gives a	

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		return GND to the ERA/Microcontroller. This signal wire should not be visible from outside. The Microcontroller circuit in the ERA has a pull-up resistor at a logical input with the return GND providing the GND. When the return GND is absent, an interrupt is generated and the DU is locked from further dispensing. To facilitate monitoring of the return GND, the particular circuit and controller should be powered at all times independently from the DU power supply. It should not be possible to switch-off the tamper detection circuit at any time. Now the DU can be activated for normal operation only through OTP authentication from-the-Vendor server.	
		Securing the DU through OTP a) OTP should be used for authentication whenever Pulsar is newly installed/replaced. b) OTP should also be used for enabling electronic K-factor Calibrations at intervals stipulated by the Dept of W&M.	
		1) OTP Features • OTPs should be DU specific (i.e. for each Metering Unit).	
		k) <u>Suggested Procedure for OTP Generation</u> OTP Vendor's server should store the serial numbers of the installed DUs, with serial numbers of the Pulsar(s) and controller cards and metering units. 1. Secret keys are stored in both the server and the DU memory in a particular order. These codes are DU specific and for a given serial number the keys match. Minimum 150 such keys will be required for each metering unit, so as to cover all the secure operations during the 10 year life time of the DU. These keys should be made for specific function – i.e. one set of keys for pulsar validation and another set for Electronic calibration. 2.OTP request should specify the operation to be authorized/validated, i.e. whether it is pulsar validation or whether it is authorization for electronic calibration. That way the individual operations can be identified at the server end. This will enable a trail of the secure operations of a DU, so as to take note of unauthorized activities, if any. The server keeps track of the serial number of the secret keys used, nozzle-wise.	

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		3. When request for an OTP comes to the server from the registered mobile number of the field engineer, with details such as DU serial number, Nozzle number and operation to be carried out, it pulls out one of the keys at the next serial number, and expands it using a non-linear and non-invertible function to a large integer. A large alpha-numeric code corresponding to this number is sent as the OTP. It is suggested that a code of minimum 8-characters, consisting of four sets of two characters, as used by Microsoft and others be used as the OTP (eg. 2X-8D-3K-3W). This OTP is keyed into the DU through the keypad. The DU now expands this to the original large number as generated at the server end. It also in parallel expands the corresponding secret key at the serial number to the large number using the same non-linear and non-invertible function. The number received (and expanded) from the server and the one created at the DU are compared. If they match, the specific operation is validated, else an error message is created and logged.	
		4. The secret keys in the DU are written through fuse links and hence cannot be read back. Server has a log of these keys and their serial numbers. Since these secret keys cannot be read back at the DU end, there is no way a match will be obtained by any other means. 5. Expertise in implementing the above is available in India with many agencies including government agencies such as CDAC, BEL, ECIL, SAMEER, etc.	
		• The scheme mentioned above is one of the many ways of implementing OTP for authorizing and validating Electronic calibration and replacement/installation of Pulsars. Schemes similar to this or better may be used in the DU. Vendors should get their schemes verified by one of the government agencies (CDAC/BEL/ECIL/SAMEER) to ensure that the main features as recommended are implemented in a secure way. The implemented scheme should ensure that each request from the service engineer is logged and a trail of all secure authentications is available for inspection. • The server at the Vendor's premises	

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		should be a secure server with access only to the designated officer/s of the Vendor. - Log information of all such authentications should be passed on to LIOC, once a month. - In case of too frequent use of OTPs for authentications for a DU, the Vendor should investigate reasons for such use (say one OTP every month on the same nozzle. Normally only two or three OTPs will be required on a nozzle every year).	
		The Pulsar Unit shall be sealed with the Metering Unit with a single wire sealing & the WM approval to specifically mention the same The Meter - Pulsar link must be inaccessible under sealing	
		The ERA assembly shall be designed to operate from zero to 100 litres per minute.	
	ERA	All boards with Microcontroller chips shall have a unique identification by soft number and shall have secured communication between them. Validation of family integrity to be ensured. No dispensing should take place if integrity is broken. If there is any unauthorized software change, then the DU should not dispense and stop working.	
		Unauthentic software / board should disable the functioning of the DU & indicate Error.	
	PCB	Material: Copper clad 1R4 substrate (woven glass epoxy, self-extinguishing) type conforming to NEMA or equivalent standard. Copper clad thickness shall be minimum 70 Microns, PTH Cu thickness shall be minimum 70 Microns. Vendor has to guarantee all the PCBs. All PCBs to bear Vendor's Company logo.	
		Provision shall be available for storing the hardware history of changes / replacement made in any of the processors boards of the DU.	
		Inspection of QA plan for the dispensing units and IOC and its authorized inspectors must be allowed to peruse the QA plans as well as the implementation of QA Plans for ERAs.	

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		Must have a real time clock to log date and time for stamping errors & events. Change of parameters referred in History log section should be logged and auditable under password protection as described in the section below	
	LCD	Quality Assurance process for the manufacture and testing of LCDs used in the DUs manufactured by the vendor shall form a part of QA plan for the DUs offered by the vendor	
	Firmware Up gradation	Every Software version must have an unique Check Sum Number & this Number must be made known to LIOC This check sum must be verifiable on the Key pad LCD screen or any other screen of DU.	
		Any change in hardware / software must be authenticated by the vendor. In case a non-authenticated hardware/software is used the DU would stop functioning. A log with the relevant error code to be generated. The same is also to be reported to IOC in writing. Software must inter communicate protocol to do auto authentication on every power on condition.	
		Any such Mother board software download must be protected by a security dongle.	
		The Current Software Version must be auditable on the Key pad LCD screen under LIOC password.	
		In the event of failure of DU, processor / controller card if required to be replaced, the same should be done with card of same or higher version.	
	History logs	The History logs with following number of changes must be recorded for latest 10 Unit Price changes (Date, Time, New Rate, Rupee Totaliser, Litre Totaliser, User Level) 10 calibrations K factor changes (K Factor, Rupee Totaliser, Litre Totaliser, User Level, Date, Time) 20 Dispensing Mode Change - Auto or Manual (New Mode, User Level, Date & Time) 10 Sale Transactions (Transaction Number, Rupee Sale, Litre Sale, Rate, Date, Time) 20 Error codes (Error / Event Number, User Level, Date & Time) should be stored and it must be possible to recall both the old and latest. ERROR codes to be flashed on the screen key pad and not on the main display.	
	Password Protection	All the programming parameters to be accessed thru multi Level Password – Operator Level, Supervisory level, X level, Automation level & Factory level. Password	

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		should be minimum 4 digits. Password Protection – Operator Level, Supervisory level, X level & Automation level.	
		Additionally there shall be a Changeable Password that shall be under LIOC custody to, enable the following 1) Dispenser Mode Selection - Manual / Manual-Auto Mode / Fixed Auto Mode. Also refer Functional Design Specification for Event, Error & Exception Logs & Audit Trails with minimum requirement provided in the Tender doc	
	Volume Calibration	Facility shall be incorporated to correct any error in volumes dispensed by DU through ELECTRONIC CALIBRATION only.	
		The Electronic Calibration shall be part of the electronic System housed within the ERA box and shall be under supervisory level access. Physical access to same to be given to W & M as required by the Dept. of Weights and Measures.	
		E calibration should be possible in both automation and manual mode.	
		As per protocol E cal, K factor must be a read only parameter. The K factor in no way must be changeable from any external means and also no manual entry of K factor must be allowed.	
		The Typical Electronic calibration procedure to generate K Factor to be as defined below:	
		After due intimation to / approval from W&M, Unseal Calibration device.	
		Enter calibration mode thru a switch on the PCB & then only option for entering into e cal should be activated on the Key Pad through relevant password.	
		Once in e Cal mode, DU shall not dispense any fuel.	
		Choose the can size: 5 Litres or 20 Litres.	
		Start filling the can, After the can is filled enter confirmation.	
		The system should ask if the reading is valid or not.	
		Then start the second filling.	
		And then 3rd filling	
		The system should ask whether the calibration factor is to be based on the average of. 3 or any one particular reading.	
		Decide and enter your choice	
		After this the system should show what is the calibration factor (k factor). Maximum	

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		Allowable E-calibration range for K-factor (+/-1%): +/-50ml for 5 litre can size and +/-200ml for 20 litre can size. In case the variation is beyond the above defined values, the DU shall not accept the e Cal value and shall stop fueling and Vendor has to replace the Metering Unit.	
		Enter operation mode through password.	
		There should be no provision for direct entry of K factor.	
		The history of such 20 calibrations / error correction shall be stored in the CPU memory of the ERA and shall be recalled in the two-line keypad display board and also printed through receipt printer "ON Demand".	
		The key press steps to view E cal K Factor shall be minimum & must be displayed via a sticker on the side of the Dispenser.	
		This is an auditable information and to be under LIOC changeable password. Automation password will be for the sole use of IOC and shall exclusively control NANF related functions unless configured for additional rights, as & when desired by LIOC. Calibration history shall be viewable through both automation as well as supervisory/ X level password.	
		For each electronic calibration following data will be mapped and preserved.	
		K factor	
		Date & Time of Electronic calibration	
		Electronic Cumulative totalizer.	
		- Must be available at least in two locations in non-volatile memory. Totalizer data must also be displayed on LCD powered by a battery. In the event of a need to replace any or all cards, reference of the latest totalizer reading must be available for incorporation and updating of records. - Electronic Totalizer should be of 12 digits (including decimals) with 3 digits after decimal, i.e. eight full digits and three digits after decimal point. - Electronic Totalizer reading should be a non-resettable/irreversible even by the programmer.	
		Calibration count Cal count is a counter register which is non reversible or non-tamperable event by the design. Whenever the electronic calibration is done this count will increment by one.	

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		The latest count must show the total no of changes made so far.	
		There shall be specific information stickers on the DU indicating e.g "Sealing Points - Meter with Pulsar, MB, Electronic Calibration Point" "Electronically Calibrated DU - No Calibration on Meter"	
	Enforcing Daily Test Delivery	As stipulated, each nozzle of a DU should enforce through program a 'Test delivery mode' of 5 litres once in 24 hours. In case this is not done in a 24 hour period, the DU should stop operating in the normal mode at the end of 24 hours and give an alarm/message. In such cases normal delivery can happen only after doing the test delivery. in case the 24 hour span after the last test delivery happens during an ongoing delivery, the present delivery should be completed and then the DU should go into the 'Test delivery mode'.	
	ERA handling of Motor	Pump Motor should not switch on before completion of segment check sequence.	
		Pump Motor to switch off if no fuel is dispensed for duration up to 30 seconds (maximum). The period of time out shall be configurable downwards in stages of 5 seconds . Default setting will be 15 seconds. Log trail of this time out with timestamp should be available for the last 50 such events. The period of such time out shall be configurable at site through programmable key pad commands under a level of password protection. Repeated occurrence of such Time Out's to log an error, that is recorded such errors site shall be logged to pump error log memory. Last 20 errors shall be recallable on key pad display or printed as audit trail.	
		In Automation mode the pump must be a slave to the FCC & Pump Motor shall not start (i.e. DU shall not get authorized) until the authorization command is received from automation system in Call state while fueling in remote preset mode.	

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		The DU OEM should provide the Simulator with protocols (for the offered DUs) to LIOC, as and when required. Shall provide to LIOC appointed automation vendor, if required on chargeable basis. Vendor shall assist LIOC appointed automation vendor for its DU integration through Lab Testing and field assistance, if any.	
		Electronic components should be capable of withstanding without damage test conditions as specified below for extreme ambient operating temp. of –10.0 deg C to +55.0 deg C .	
		Environmental Type testing shall be carried out at ERTL / Govt Approved - NABL Certified Lab for each model with the entire dispenser i.e. with liquid dispensing provision.	
		Dry Heat Test for the maximum operating temperature + 55 deg C for 2 hrs at Ambient RH in Power ON Mode.	
		Cold Test at -10 deg C for 2 hrs ambient RH in Power ON mode.	
		Damp Heat Cycle Test - The DU to be tested as specified below..	
		DU to be tested for Two Cycles ONE CYCLE is as below From ambient to 20 deg C @ of 1 deg C / Min & Humidity 95% RH, 6 hrs - maintain 95% RH at 20 deg C 35 min - increase at 95% RH 20 deg C to 55 deg C 12 hrs - maintain at 95% RH at 55 deg C 35 mins - decrease at 95% RH to 20 deg C @ of 1 deg / min 6 hrs maintain 95% RH at 20 deg C	
		1 cycle = 6 hrs + 35 min + 12 hrs + 35 min + 6 hrs = 25.10 hrs The dispenser to be tested for TWO such Cycles - 50.20 hrs total test duration This test to be performed in Power OFF mode The Dispensing Operation, key functionality & integrity shall be maintained before & after the test. Same shall be verified & certified by the lab.	
	,	Above certified environmental test report for each model ordered under this order shall be submitted. LIOC / TPI reserves the right to witness the inspection	
	Preset Key Pad	Alphanumeric keypad to be provided for various commands and vehicle no. entry. Additional two line. LC Display shall be provided along with keypad.	

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		Specific keys for Totaliser viewing must be provided & the key press sequence shall be basic & simple eg "Totaliser" Key + "1" key gives the Nozzle 1 Totaliser Volume & Amount readings viewable on either the ERA LCD display or Key pad LCD screen, this data must be printable on demand by press of the Print key. Similarly for the other nozzles 2,3,4,5,6,7,8, etc.	
	Specify the details of the following :		
		High / low voltage protection for Electronic Circuit.	
		Method of pulse counting.	
		Temperature range	
	Displays :	Both sides of the DU to be provided with backlit LED (static display type and not multiplexed) readable both during day and night and even under direct sunlight.	
	Character Height :	Volume & Sale Value: 35 - 40 mm Nominal	
		Rate per Litre :- 25 mm Nominal	
		Density Display :- 25 mm Nominal	
	Number of Digits:	Sale Value- 7 digits; To read up to Rs. 99999.99 Non floating	
		Volume- 6 digits ; To read up to 9999.99 ltrs.	
		Rate per ltr. - 5 digits ; To read up to Rs. 999.99 per litre.	
	Remote Display provision	The ERA shall have port provision for separate remote display with larger LED / LCD digit panel to be integrated at a later stage.	
	Quality of LCD:	Industrial Grade Type to withstand up to 80° C.	
	Specify make.	Vendor to specify make and furnish certificate of compliance to above rating from sub- vendor, if outsourced.	
	Mounting of Micro Controller	All micro controller and programmable ICs carrying the pump software shall be Surface Mount Devices and shall be directly soldered on the respective PCBs to ensure that unauthorized access or change to micro controller or such other components is rendered impossible.	
		The manufacturer should have their Tag - logo printed along with the Board serial number on the mother board for identification. It shall be mounted on the structure through a screw/ bolt and the whole mounting to be under sealed with manufacturer's seal on it.	

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		There shall be specific information stickers on the DU indicating "this is a Electronic Totaliser enabled DU, No EMT/MT provided"	
	LCD Electronic Totaliser	As the EMT has been removed for ready reference of the Totaliser value respective Electronic Totaliser value shall be enabled to be displayed on the Key pad LCD for 20 seconds as and when a specific Nozzle is kept back in the boot. This Value shall be read from the same basic mother board memory storage.	
		An additional Back Up of the Electronic Totaliser Value of each nozzle shall be maintained on a board, other than the Mother Board and this must be readable when required in case of the Mother Board Memory failure due to any reason.	
	Electronic Totaliser:	• 12 digit concurrent electronic totaliser also to be provided mandatorily (12 digits, including decimals with 3 digits after decimal, i.e. eight full digits and three digits after decimal point). • Electronic Totalizer readings should be a non-resettable/irreversible even by the programmer. This totaliser shall be recalled on main display or Keypad display through key pad commands.	
		Specific Totaliser key for Totaliser viewing must be provided on key pad & the key press sequence shall be basic & simple as indicated below. The Totaliser viewing Key press must be displayed via sticker on the side of the DU.	
		eg "Totaliser" Key + "1" key gives the Nozzle 1 Totaliser Volume & Amount readings viewable on either the ERA LCD display or Key pad LCD screen, this data must be printable on demand by press of the Print key. Similarly for the other nozzles 2,3,4,5,6,7,8,	
		Electronic totaliser shall not be reversible by any means. There shall be no provision what so ever to feed or change the Electronic Totaliser value. Vendor to confirm non-reversibility.	
	Pre-set facility.	DU nozzle should operate only after Presetting. The Preset amount / quantity should be displayed on keypad display and not on main display. Pre-Set facility with alpha numeric & additional function key pads to enable customer to choose between litre or rupee value modes as required and also to enable the pump attendant to enter the vehicle no. Which is	

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		needed to appear in the cash memo to be printed in the printer attached to DU. The default vehicle no. if not entered, should read "Not Entered". The preset quantity or rupee value should be displayed on the main L C display to facilitate customer to see the same, in addition to the keypad display, prior to delivery. If the Preset delivery is aborted before it is completed, the log of the Preset quantity, and actual quantity dispensed should be logged with time stamp. A log trail of the last 200 aborted Preset deliveries should be available at recall.	
		In remote preset the Local Key pad must be totally disabled & the remote preset value must not be alterable from the Local Key pad. Preset to the pump if initiated through local keypad can be changed through local keypad only and not through Automation system and vice versa.	
	Display and Memory Retention	Non-volatile memory or power failure protection to be available with battery. DU CPU/ Control Card should be provided with-battery backup-to protect the same from power surges/ intermittent power failure to protect the transaction data. The status of battery power back up availability has to be checked by the electronics before each transaction, so as to ensure availability of back up in case of any power failure during the transaction. If the battery power is low the transaction must not commence at all and must flash an Error. This shall be demonstrated during TP Inspection by using a low charged battery.	
		The display back up of the last transaction shall be for a min. period of 15 minutes of power disruption	
		All data should be available till 72 hours after power disruption.	
		Backup for electronic totaliser should be available at all times.	
		Facility shall also be provided to recall and print data of last 10 sale transactions. This facility to be not direct but under user password protection.	
		However, such receipt printouts, if it is not followed by an actual sale transaction, shall indicate that it is a duplicate copy of the original receipt.	

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	Batteries	Note : Rechargeable back-up battery shall be provided by BUYER. The ERA design shall be compatible with a maintenance free lead acid type battery as per manufacturing specification (recommended time 6V DC with min. 10 AH rating.) Super capacitors is allowed, provided they have enough capacity to hold charge for several hours (say 8 to 12 hours) to detect tampering attempts.	
		Capacity of batteries must be designed in such a way that there will be no overcharging. Overcharging protection must be provided.	
		Battery rating & recommended makes shall be specified	
		Batteries provided shall be safe to be used in the ERA section of Dus	
		The ERA box to have suitable venting as per ATEX norms	
		The status of battery power back up availability has to be checked by the electronics before each transaction, so as to ensure availability of back up in case of any power failure during the transaction. If the battery power is low the transaction must not commence at all and must flash an Error. In case of power failure, displays should remain for 15 minutes as per OIML R-117-1. No external batteries should be used for back up. This shall be demonstrated during TP inspection by using a low charged battery.	
		Specific Internal surge protection device of suitable capacity must be provided for protecting electronic computing head from fluctuations and high voltage surges above the testing norms specified below. Within the surge test norms the DU should work uninterrupted in spite of the surges. The protection provided in the dispensing units for motor as well as electronics against surges/spikes shall be specified. The Evidence of protection of ERA against the various interferences shall be provided from a Government approved lab ERTL / SAMEER/CDAC as per the tests & norms specified in the ERA section.	
		FLP Motor shall conform to the requirements of IS-2148 (2004). Inspection of insulation of motors shall be carried out at sub-vendor's premises.	
		MCB and RCCB of appropriate rating are required for the ERA assembly.	

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		IOC will do the testing of DU with ERA assembly on random basis. Due to constraints at ERTL premises, shorter version of DU shall be permitted. In case of foreign vendors, the DUs shall be tested at any of the certified laboratories of their country of origin	
		All boards with Microcontroller chips shall have a unique identification by soft number and shall have secured communication between them. Validation of family integrity to be ensured. No dispensing should take place if integrity is broken. If there is any unauthorized software change, then the DU should not dispense and stop working.	
		1. Material: Copper clad FR4 substrate (woven glass epoxy, selfextinguishing) type conforming to NEMA or equivalent standard. Copper clad thickness shall be minimum 70 Microns, PTH Cu thickness shall be minimum 70 Microns. Vendor has to guarantee all the PCBs.	
		Provision for EMT is not required. Since EMT's has been eliminated, specific keys for totaliser viewing must be provided & the key press sequence shall be basic & simple eg "Totaliser" Key + "1" key gives the Nozzle 1 Totaliser Volume & Amount readings viewable on either the ERA LCD display or Key pad LCD screen, this data must be printable on demand by press of the Print key. Similarly for the other nozzles 2,3,4,5,6,7,8,	
		7 digit concurrent electronic totaliser also to be provided mandatorily & it should be possible to read this on ERA LCD or key pad LCD or any other LCD display.	
	Retail Automation:		
		Hardware change audit (except for DU controller card where the hardware change audit is stored). Parameter stored: hardware description, date & time.	
		The relevant DU protocols and details of firmware version shall be provided to LIOC (in hardcopy as well as in electronic form on a physical media).	
		DU vendors to change the software version during the supply of dispensing units with due approval from LIOC.	
		The History logs with following number of changes must be recorded for latest	
		10 Unit Price changes (Date, Time, New Rate, Rupee Totaliser, Litre Totaliser, User	

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		Level)	
		10 calibrations K factor changes (K Factor, Rupee Totaliser, Litre Totaliser, User Level, Date, Time)	
		20 Dispensing Mode Change - Auto or Manual (New Mode, User Level, Date & Time)	
		10 Sale Transactions (Transaction Number, Rupee Sale, Litre Sale, Rate, Date, Time)	
		Log of the last 50 events of the 30 sec motor cutoff events	
		Log of the last 50 aborted preset delivery events and the quantity dispensed.	
		20 Error codes (Error / Event Number, User Level, Date & Time) should be stored and it must be possible to recall both the old and latest.	
		Password Protection - Operator Level, Supervisory level & Automation level.	
		Also refer Functional Design Specification for Event, Error & Exception Logs & Audit Trails with minimum requirement provided in the Tender document.	
		Automation password will be for the sole use of IOC and shall exclusively control NANF related functions unless configured for additional rights, as & when desired by LIOC.	
		Calibration history shall be viewable through both automation as well as supervisory password.	
		Preset to the pump if initiated through local keypad can be changed through local keypad only and not through Automation system and vice versa.	
		(a) Depending on the nature of additional feature, DU would be tested with automation system for any change in FCC, if required.	
		It is clarified that selectable option will allow direct printing from the Forecourt Controller (FCC). In case, the Forecourt Controller stops communicating, the printer will take command from the DU to enable local printing. Facility to input and broadcast the last numeric part (4 digits or less) of vehicle number in the DU shall be provided. New protocol command set / logic for the same shall be furnished by the DU vendor. Changes, if any, at automation end would be carried out to allow polling by the FCC/POS computer. The NANF event logs & audit trails along with date / time shall be accessible by Automation and Supervisory password.	
		However, all Event Logs and Audit Trails shall be configurable (Refer C. Pump Parameter	

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		Configuration of Functional Design Specification for Event, Error & Exception Logs & Audit Trails - minimum requirement provided in the Tender document.	
		Software version The software version should be viewable under LIOC and / or Supervisory Password.	
	Display and Memory Retention	Non-volatile memory or power failure protection to be available with battery. DU CPU/ Control Card should be provided with battery backup to protect the same from power surges/ intermittent power failure to protect the transaction data. The status of battery power back up availability has to be checked by the electronics before each transaction, so as to ensure availability of back up in case of any power failure during the transaction. If the battery power is low the transaction must not commence at all and must flash an Error. This shall be demonstrated during TP Inspection by using a low charged battery. In case the vendor is providing ERA which is capable of ensuring the necessary data back up and display is retained for a period of 15 minutes after power failure even without back up battery, the same is acceptable. Else, specification is to be followed.	
	History Logs		
		History of logs as under to be recorded and stored for recall on key pad display. DU should be capable of dumping the Logs in the Readable Format to the automation system. Logs to be displayed on the screen key pad and not on the main display. DU should be in position to export the data logs into an external device like USB. i.Last 10 No. Unit Price changes (Count, Date, Time, Totaliser, Unit Price) ii.Last 10 No. Sale Transactions (Count, Date, Time, Amount, Volume, Unit Price, Totaliser) iii.Last 20 No. Dispensing Mode Change - Auto to Manual (Count, Date, Time, Totaliser) iv.Last 20 Error codes (Count, Date, Time, Error description) v.Last 10 No. K factor changes (Count, Date, Time, Totaliser, K Factor) vi.No log is required for Memory error, it is to be displayed on the key pad display.	
	Password Protection		

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		All the programming parameters to be accessed thru multi Level Password of minimum four digits, as per admissible rights. i. User Level i.e. RO User ii. Supervisory level i.e. for DU OEM Engineer for maintenance purpose iii. Factory (OEM) level i.e for DU OEM for factory working. iv. LIOC user for changing DU mode. Right for changing DU mode from Auto to Manual and for viewing the history logs shall rest with LIOC user only.	
		DU should have provision under LIOC password both for initiation of compulsory printing for every transaction and / or on demand printing. In case of mode of compulsory printing, the DU should not enable next transaction unless and until a printout for the previous transaction is generated. Similarly, in case of " Paper out" also, if the mode of compulsory printing has been selected, then DU should not enable next transaction. The printer should also for printing the second copy for the transaction, if required and shall be marked as "DUPLICATE".	
	PROVISION FOR LIGHT/SWITCH	Not required. Back Lit ERA to be provided.	
Specification of all types of Dispensing Units Related to Automation			
	Firmware Up gradation	Every Software version must have an unique Check Sum Number & this Number must be made known to LIOC. This check sum must be verifiable on the. Key pad LCD screen or any other screen of DU.	

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	1) Dispenser Mode Selection - Manual / Manual- Auto / Fixed Auto Mode	Provision should be there for selection of the Dispenser Operating Mode i.e in automation or manual. Access to changing the mode should only be thru a separate Highest Level of Password. Dispenser should log the timing & details of transactions carried out in Auto & Manual Mode. 1.The default mode of DU when dispatched from OEM factory shall be in MANUAL and shall be changeable at the RO. 2.There shall be 2 types of selections available through an entry level changeable 4/6 digit numeric password inputted / fed through the DU key pad or through a remote control device. 3.These selections shall be: a)Selection I: Choice in mode of operation (Auto or Manual) a1• Choice I :- Manual (stand alone) a2• Choice II :- Change over to Automation b)Selection II: No choice except Automation. • Fixed Automation Mode thru a fixed known three digit Key number. Enabling this selection shall be possible only with a specific key entry (non changeable, but will avoid accidental choice of this Selection). Details enclosed for No Automation No fuelling concept	
		The DU once in automation mode shall not revert to Manual mode in case of a power recycle.	
	Communication	Communication Junction Box	
	Communication Junction Box	Separate communication Junction Box (JB) with sufficient terminal blocks to be provided to terminate automation host communication cable in the Junction Box. This JB required to be provided at the bottom of the DU. Communication between such JB & DU's Control Card should be pre-wired, glanded, terminated and protected duly plugged at the other end.	
	DU protocol	The DU communication protocol shall be handed over to LIOC for its business use. Also, the pump manufacturer shall provided technical support with respect to protocol, pump electronics to LIOC and / or its nominated automation vendor, if required. The protocol must be robust, reliable and standard to support any automation system with start and stop byte, parity checks, baud rate,two way communication, checksum for error correction, acknowledgement, etc.	

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		The MPD must have a RS 485 Type of communication port (hard ware -2 wire, 2 way communication) and a messaging protocol available, such that a host machine can control and retrieve transactional data from the DU. DU should be able to communicate with standard automation systems in multi dropping mode (4 DUs multidropped on one node) and all basic parameters required by the automation system must be present in the DU memory map.	
		LIOC warrants the vendor to ensure that the pump software/ programme remains strictly confidential. Vendor to ensure tight security with suitable internal processes to prevent the software from being disclosed to any outside party. LIOC reserves the right to debar the vendor from all future tenders in the event LIOC has reasons to believe that the same has come into the possession of any undesired person or agency. In such case, vendor shall load new software or replace the manipulated motherboard with new motherboard as per LIOC's requirement and at no extra cost to LIOC.	
		The relevant DU protocols and details of firmware version shall be provided to LIOC/ LIOC appointed automation vendor (in hardcopy as well as in electronic form on a physical media), under appropriate NDA.	
		The protocol shall support remote change of unit rates for all nozzles in the DU. This is in order to enable remote price change of products through Automation System if required. Viewing such changes shall be LIOC password protected.	
		History of such changes shall be stored in CPU and be recalled when required.	
	Communication Protocol and Memory Mapping	(a) Irrespective of the upgradation of versions of different DU models, the basic communication protocol and memory mapping of a specific DU make and model should remain unchanged, so that the same does not affect RO Automation system. (b) Hard coding of any feature/functions/functionalities at any place in the Software code is NOT permissible. (c) All functional parameters which affect future expansion/modification/upgradation, shall be configurable to the best possible extent.	

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		Vendor to declare these configurable parameters in their offer. (d)Vendor to avoid proprietary protocols/standards/configuration as far as possible . Whenever the use of the same is unavoidable, the Vendor to declare the same in their offer.	
		(a)Should there be a need in future for generating additional read/ write parameters necessitating a new Software Version of the DU, the same should be possible without affecting the existing automation system drivers. In case the nature of upgradation necessitates a change in the memory map/ communication protocol, the same is acceptable subject to in time handover of DU protocol by the OEM. (b)The requirement of exporting the data logs into an external device like USB would be a desirable feature of DU. However, DU has to be capable of exporting the data logs in the ASCII Text Format onto an external device like Forecourt Controller/ Site controller or a hand held device. However, bidders may also confirm that should there be a need to change the communication protocol and memory mapping in future, as desired by LIOC, vendor shall be able to implement the same.	
	CRIND/RFID requirement	The DU Vendor should be capable of retrofit card readers (magnetic stripe swipes) in the pumps at a later stage. Necessary provision shall be made in the pumps to retrofit the card reader.	
		The DU should be able to retro fit Radio Frequency Identification (RFID) readers	
		on the outer surface of the pumps at a suitable height. The max. size of the RFID 200 mm x 125mm x 75 mm) and it would draw single phase current.	
	Local printing on DU printer with command from FCC	DU should, by default enable local receipt printing. Option should be available on auto as well as manual mode. In the DU 'No Print No Delivery' (NPND) is mandatory. The disabling of NPND should be only through Supervisory level password. Facility to input and broadcast the last numeric part (4 digits or less) of vehicle number in the DU shall be provided. New protocol command set / logic for the same shall be furnished by the DU vendor.	

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		Additionally as an option if IOC desires it should be possible to disable & disconnect local printing and connect the printer communication port directly to the FCC. In this case the print command to the DU Printer will be directly form the FCC & the DU Mother board will be totally bypassed. The Print out will be with the POS transaction ID. The FCC will be integrated to the printer protocols. The Printer Driver Protocols & Communication port details shall be shared by the DU Vendor along with the DU protocols. For the above local printing option from FCC, DU vendors shall recommend the feasibility of modifying the protocols to accommodate the following a)How taking the print can be prompted & taking the print can be made optional i.e. can be bypassed or okayed b)if to be printed the method by which the Vehicle number shall be provided to the FCC using the preset key pad & printed on the receipt Printer automation mode: - 1.After the completion of every transaction in auto mode and putting nozzle back in boot, Automation system shall issue the transaction 1D (16 digit), Date time stamp (Format DDMMYYYY, HH/MM/SS), Customer Attendant ID by default to the DU. 2.Once print key is pressed on the DU keypad, it shall seek Vehicle no., Mobile No., to be entered by Customer Attendant. 3. DU's inbuilt printer shall print the relevant transaction receipt with the details provided by the Automation System along with Vehicle No. and / or Mobile No., if entered. 4.On generation of the transaction print out, DU shall communicate back confirmation to Automation system that print out has been taken against the Transaction ID along with relevant Vehicle no. and / or mobile no., if entered. All other prints possible from the DU's in built printer will remain un affected and shall attract no change. Incase the automation system is not operative, printer shall continue to work independently and generate printout without the transaction ID issued by FCC. DU should be able to capture electronic totaliser	
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		reading as soon as DU goes out of automation system and switches over to manual mode with the password provision. DU should also be able to capture electronic totaliser reading as soon as DU comes back in automation system from manual mode operation.	
		Event logs and audit trails along with date and time are to be incorporated. Additional Points – a) The NANF Pvent logs & audit trails along with date / time shall be accessible by Automation and Supervisory password. b) All Event Logs and Audit Trails shall be configurable (Refer C. Pump Parameter Configuration of Functional Design Specification for Event, Error & Exception Logs & Audit Trails - minimum requirement provided in the Tender document.	
		Retail automation points:	
		Printing from DU printer While operating in Auto mode, whenever the DU goes to manual Mode, the DU has to store its totaliser reading and when the DU re- connects to FCC, this totaliser reading has to be communicated to FCC by the DU.	
		Transaction of DU On completion of a transaction, the DU will get transaction ID from FCC and will print this transaction ID when a transaction print is initiated from DU key pad. In case of communication failure while dispensing is in progress, DU has to generate transaction receipt for the transaction (whatever quantity /amount dispensed by the DU) at the DU-end. This print-out from DU would be without any transaction ID from FCC. While operating in auto mode, the transaction ID from FCC shall be maximum 16 digits.	
		DU manual mode However, while working in manual mode, ID will be generated by DU would be 4 digits as given in the tender document.	
		DU logs, error and alarms All log/s, error/s and alarm's recorded by the DU would be sent to FCC through the native protocol of the DU.	

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		DU Junction box DU Junction box should have additional spare terminal required for input of UPS power supply (for cable size 2.5 sq.mm) to RO Automation equipment. This terminal should be wired up to the top of DU in '0' zone. This end of the terminal will have terminal block for connection to the RO automation equipment. Another terminal for communication (for cable size of 2 pair x 0.5 sq. mm) should be kept at the junction box in Zone '1'. In similar manner, it should be ensured that one pair of cables remain spare, even while wiring DUO pumps for automation equipment. Both the terminal blocks should be marked to have proper identification of power and communication.	
	Dispenser Mode	Dispenser Mode : Working of DU in Auto / Manual Mode	
		By default the DU will be in Manual mode from Factory setting. B. On receipt of the Automation signal the DU shall work in Auto mode only. C. The DU once in automation mode shall not revert to Manual mode in case of : i, a power recycle & / or ii. a failure of Automation signal Note: i)However, in order to bring the DU in manual mode, in case of automation signal failure, password to be used by LIOC. ii)In case of a transaction initiated by automation system and later automation system failed while transaction is in progress then DU should allow completion of the ongoing transaction initiated by automation system and then authorise LIOC to change to manual mode. D. In case, the DU is dispensing in manual mode and Automation signal is sensed on its communication port, the DU shall switch over to automation mode after completion of on-going delivery transaction in manual mode and pump comes to idle state. E. In remote preset the Local Key Pad must be totally disabled & remote preset to the pump if initiated through local keypad can be changed through local keypad only and not through Automation system.	
	DU protocol		
		DU communication protocol shall be handed over to LIOC. The protocol must be robust, reliable and standard to support any automation system and shall have all details of errors, k factor,	

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		logs, to be transferred to Automation System. In case of a communication failure, the FCC should wait only for a maximum of 30 sec. In such events there should be no dispensing and FCC should stop. There should be no pre-authorization of nozzles. Pulsar should also time out in 30 sec. The DU's memory map should have features to meet the broad requirement viz. start and stop byte, parity checks, baud rate, two way communication, checksum for error correction, acknowledgement, etc. Detailed requirements including error codes to be covered in DU protocol shall be discussed during pre-bid meeting. Also, the DU OEM shall provide technical support with respect to protocol, pump electronics to LIOC and / or its nominated automation vendor, if required for integration with RO Automation System. DU OEM shall also be responsible to provide one simulator for each model of the DU with LIOC. DU shall communicate with Automation System through RS 485 type of communication port (hard ware -2 wire, 2 way communication) as per the DU communication protocol. DU should be able to communicate with Automation System in multi dropping mode (i.e. maximum 4 DUs multidropped on one node). DU OEM to ensure that the DU's software remains strictly confidential. DU OEM to ensure tight security with suitable internal processes to prevent the software from being disclosed to any outside party. LIOC reserves the right to debar the vendor from all future tenders in the event LIOC has reasons to believe that the DU's software has come into the possession of any undesired person or agency. In such case, DU OEM shall carry out the following as per LIOC's requirement for proper functioning of the DU at no extra cost to LIOC: i. Load a new software or ii. replace the manipulated motherboard with new motherboard.	
		Read & Write Parameters for communicating with Automation system	

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	Following parameters must be available in dispenser for integration with automation system, using an industry / vendor standard protocol.	
	Read Parameters :	
	i) DU Status (idle call, authorized, fuelling, suspended, payable)	
	ii) Running Quantity & Amount while dispensing	
	iii) Sale transaction information, comp ete with Totalizer value's le:tourivDate;	
	Time, Amount, Volume, Unit Price, Totaliser	
	iv)Preset (Quantity/Amount) being keyed in at DU end.	
	v)K Factor	
	vi)Totalizer values for Quantity.	
	Write parameters from automation system:	
	i) Preset (Quantity / Amount)	
	ii)Clear Clear sale completion status	
	iii)Price per unit Volume	
	iv)Suspend sale	
	v)Resume sale	
	vi)Authorization	
	vii)Cancel Preset	
	A. By default the DU will be in Manual mode from Factory setting. B. On receipt of the Automation signal the DU shall work in Auto mode only. C. The DU once in automation mode shall not revert to Manual mode in case of: i. a power recycle & / or ii. a failure of Automation signal Note: i) However, in order to bring the DU in manual mode, in case of automation signal failure, password to be used by LIOC. ii) In case of a transaction initiated by automation system and later automation system failed while transaction is in progress then DU should allow completion of the ongoing transaction initiated by automation system and then authorise LIOC to change to manual mode. D. In case, the DU is dispensing in manual mode and Automation signal is sensed on it's communication port, the DU shall switch over to automation mode after completion of on-going delivery transaction in manual mode and pump comes to idle state. E. In remote preset the Local Key pad must be totally disabled & the remote preset value must not be alterable from the Local Key pad. Similarly, Preset to the pump if initiated	

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		through local keypad can be changed through local keypad only and not through Automation system.	
		Local printing on DU printer	
		DU should enable local receipt printing on demand. Each print out should contain the transaction ID (maximum 8 digits) of the sale transaction. Facility to input and print the vehicle number shall also be provided through DU Alphanumeric key pad and LC Display. The default vehicle no. if not entered, should read "Not Entered". In case a transaction has been initiated with a preset value (volume or amount) either from automation system or from DU key pad, the same also needs to be printed on the receipt as "Preset (volume or amount)". If, preset is not given then the receipt should have "Preset not entered". Each receipt should bear a unique receipt number (maximum 5 digits associated with unique alpha-bet series for each month) linked to a counter. Automation system shall provide transaction ID (maximum 8 digits) on completion of each transaction which shall be printed on the receipt which shall override DU transaction ID. In case of automation failure, the printer will take transaction ID (maximum 6 digits) from the DU and do local printing. DU should be in a position to send print ID of the last transaction of the shift at every shift closure initiated by automation system. DU should generate alarms for the situations of "Low paper", "Paper out" & "Printer failure" and send the same to the automation system instantaneously on their occurrence. LED Indication for such alarm should be available locally at the DU end.	
Additional Clarification on specification			
		1.Pumping Unit and Metering Unit should have unique identification sr. no. with non-alterable type. 2.Position of drip tray should be at the bottom of the dispensing unit. 3.IOC / its representative will witness type test and routine test for the castings at the sub-vendor's premises on sample basis. 4.Meter calibration will be carried out at ambient temperature as per Srilankan conditions. 5.FLP Motor shall conform to the requirements of 15-2148 (2004). 6.Inspection of insulation of motors shall be carried out at sub-vendor's premises.	

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		7.IOC will do the testing of DU with ERA assembly on random basis. Due to constraints at ERTL premises, shorter version of DU shall be permitted. In case of foreign vendors, the DUs shall be tested at any of the certified laboratories of their country of origin. 8.PCBs– the vendor to certify and guarantee the quality of PCBs, 9.EMT– Provision for EMT is not required. 10.Pulsar – Certificate and testing of the encryption should be Verified & signed by any other registered body as per the tender condition. 11.Emergency Stop Button –The activation of the Emergency Stop Button will stop the fueling from the dispensing unit. 12.Retail Automation . Hardware change audit (except for DU controller card where the hardware change audit is stored) is required. Parameter stored: hardware description, date & time. The requirement of exporting the data logs into an external device like USB would be a desirable feature of DU. However, DU has to be capable of exporting the data logs in the ASCII Text Format onto an external device like Forecourt Controller / Site Controller or a hand held device. DU vendors not to change the software version during the supply of dispensing units.	
		13. Clarifications on event logs	
		•1. Clause no.2.1/2.4 - User level log to be stored is not required.	
		•2. Clause no.2.9 – Log not required since parameter is factory set.	
		•Clarifications on ERROR/WARNING	
		•1.Memory corruption- Memory error is to be displayed .No log is required.	
		14. Meaning of Terminology "Weight and Measure" is same as "Department of Legal Meteorology"	
		15.Any specification and/or code mentioned in the document has to be as per the latest version.	
	Server	1. Dedicated Server is made available for OTP management which is in physical possession of the bidder or its parent / group premises in Sri Lanka for the entire period of warranty. The server should be mirrored for geo-redundancy at a separate physical location. 2. The Server should have automatic failover, switchover / switchback facilities. The OTP management system should be developed with Database and software duly licensed in	

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		the name of the bidder. 3. The server should be housed in a fire-safe & appropriate ambient temperature controlled environment to ensure no disruption of the OTP system. 4. LIOC or its authorised third party will have access to the Server and the premises as & when required by LIOC with prior intimation to the bidder.	
	DU Software	Presently DU software unique signature is being generated using checksum generation algorithm. However, the possibility of collision of such checksum may lead to a state where multiple firmware binaries can have the same checksum value. So it is recommended usage of advanced hashing algorithm like SHA-1/2 for the generation of firmware signature.	

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VOLUME CALIBRATION OF DU

- 1.0 Facility shall be incorporated to correct any error in volumes dispensed by ELECTRONIC CALIBRATION.
- 2.0 The Electronic Calibration shall be part of the electronic System housed within the ERA box and shall be under supervisory level access. Physical access to the same to be given to W & M as required by the Dept. of Weights and Measures.
- 3.0 E calibration can be possible when DU is operating in both automation and manual mode
- 4.0 As per protocol E cal K factor must be a read only parameter. The K factor in no way must be changeable from any external means and also no manual entry of K factor must be allowed
- 5.0 The Typical Electronic calibration procedure to generate K Factor to be as defined below:
 - 5.1. After due intimation to WM, Unseal Calibration device,
 - 5.2. Enter calibration mode thru a password.
 - 5.3. Choose the can size: 5 Litres or 20 Litres.
 - 5.4. Start filling the can. After the can is filled, enter confirmation of acceptance.
 - 5.5. The system should ask if the reading is valid or not.
 - 5.6. Then start the second filling.
 - 5.7. And then 3rd filling
 - 5.8. The system should ask whether the calibration factor is to be based on the average of 3 or any one particular reading out of 3 readings.
 - 5.9. Decide and enter the choice i.e., the average of 3 or any one particular reading out of 3 readings.
- 6.0 After this, the system should show what is the calibration factor (k factor).
- 7.0 Maximum Allowable E-calibration range for K-factor (+/-1%): +/-50ml for 5 litre can size and +/-200ml for 20 litre can size.
- 8.0 In case, the variation is beyond the above defined values, the DU shall not accept the e-call value and shall stop fuelling and Vendor has to replace the metering Unit.
- 9.0 There should be no provision for direct entry of K-factor.
- 10.0 The history of such 10 calibrations / error correction shall be stored in the CPU memory of the ERA and shall be recalled in the two-line keypad display board and also printed through receipt printer "ON Demand".
- 11.0 The key press steps to view E cal K Factor shall be minimum & must be displayed via a sticker on the side of the Dispenser.
- 12.0 This is an auditable information and to be under LIOC changeable password
- 13.0 Automation password will be for the sole use of IOC and shall exclusively control NANF related functions unless configured for additional rights, as & when desired by LIOC.
- 14.0 Calibration history shall be viewable through both automation as well as supervisory password.
- 15.0 For each electronic calibration following data will be mapped and preserved.
 - 15.1. K factor
 - 15.2. Date & Time of Electronic calibration
 - 15.3. Value of Electronic Cumulative totalizer

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15.4. Calibration count

- 16.0 Cal count is a counter register which is non reversible or non-tamper able even by the OEM.
- 17.0 Whenever the electronic calibration is done, this count will increment by one. The latest count must show the total no of changes made so far.
- 18.0 There shall be specific information stickers on the DU indicating "Sealing Points - Meter with Pulsar, MB, Electronic Calibration Point" "Electronically Calibrated DU - No Calibration on Meter".

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PULSAR-SPECS, AUTHENTICATION PROCESS

- 1.0 The Pulsar must be flameproof / explosion proof if is inside the hazardous Zone 1 area of the Dispensing unit.
- 2.0 It shall be ATEX or UL approved and carry the approval reference of PESO for use in Zone 1 of Dispensing Units. Certificate for the same shall be furnished by the Vendor.
- 3.0 The Pulsar shall be integral part of Metering Unit. However, LIOC may accept top mounted pulsar with common drive shaft coupled between metering unit and pulsar without any gears.
- 4.0 Pulsar to have inbuilt check for uni-directional rotation only.
- 5.0 PULSAR TYPE : Pulsar with magnetic sensors with analog output inaccessible outside of sensor chip (Hall effect or magneto-resistive sensors).
- 6.0 The Pulsar must have features to make it tamper proof, such as the sensor embedded in a proprietary IC giving encrypted output with no access to the actual sensor outputs, with warning signal and stoppage of pump in case of failure of the sensor.
- 7.0 Any tampering / opening of the pulsar type should result in stopping of the DU. DU to be operated only after authentication through OTP or the pulsar must be made non openable by appropriate hermetical sealing with metering unit. Any defect in pulsar will lead to change of the pulsar cum metering unit.
- 8.0 The Pulsar communication to ERA: Pulsar communicating to ERA shall be secured & encrypted with minimum 128 bit encryption. The encryption should be ~~there~~ in all intelligent electronics cards (e.g. Key pad Display, Control Card(s)). Necessary certification from globally accepted agencies like VERISIGN to this effect needs to be provided.
- 9.0 Securing Pulsar against unauthorised opening at retail outlet premises:
 - 9.1. The pulsar should have a life cycle of 10 years. In case of any malfunction, the pulsar should be only replaced, and not repaired at retail out.
 - OR
 - 9.2. If pulsar is opened for any reason, it should send a signal to the controller and deactivate the DU. Such events should be logged in the non-volatile memory of the controller with dated and timestamp. The DU can be brought back to normal operation only by authentication from the Vendor's server (through one-time -password i.e., OTP).
- 10.0 Recommended / Suggested Hardware features in ERA for securing the pulsar against unauthorized opening:
 - 10.1. A spring-loaded switch can be kept pressed when the Pulsar is closed (or a mesh on the PCB of the pulsar board).
 - 10.2. The switch gives a return GND to the ERA / Microcontroller. This signal wire should not be visible from outside. The microcontroller circuit in the ERA has pull-up resistor at a logical input with the return GND providing the GND. When return GND is absent, an interrupt is generated and the DU is locked from further dispensing. To facilitate monitoring of the return GND, the particular circuit and controller should be powered at all

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times independently from the DU power supply. It should not be possible to switch off the 'tamper detection circuit' at any time. DU can be activated for normal operation only through OTP authentication from the Vendor's Server.

- 11.0 Securing the DU through OTP:- OTPs should be DU specific i.e., for each Metering Unit.
- 11.1. OTP should be used for authentication whenever Pulsar is installed / replaced.
- 11.2. OTP should also be used for enabling electronic K-factor Calibrations-
- 11.3. Suggested Procedure for OTP Generation :-
 - (a) Vendor's Server should store the serial numbers of the installed DUs, with serial numbers of the Pulsar(s) and controller cards and metering units.
 - (b) Secret keys are stored in both the Server and the DU memory in a particular order. These codes are DU specific and for a given serial number the keys match.
 - (c) Minimum 150 such keys will be required for each metering unit, so as to cover all the secure operations during the 10 year life time of the DU. These keys should be made for specific function – i.e. one set of keys for Pulsar validation and another set for Electronic calibration.
 - (d) OTP request should specify the operation to be authorized / validated, i.e., whether it is pulsar validation or whether it is authorization for electronic calibration. That way, the individual operations can be identified at the Server end. This will enable a trail of the secure operations of a DU, so as to take note of unauthorized activities, if any. The Server keeps track of the serial number of the secret keys used, nozzle-wise.
 - (e) When request for an OTP comes to the Server from the registered mobile number of the vendor's field engineer, with details such as DU serial number, Nozzle number and the type of operation to be carried out, it pulls out one of the keys at the next serial number, and expands it using a non-linear and non-invertible function to a large integer.
 - (f) A large alpha-numeric code corresponding to this number is sent as the OTP to the mobile of vendor's field engineer. It is suggested that a code of minimum 8-characters, consisting of four sets of two characters, as used by Microsoft and others be used as the OTP (eg. 2X-8D-3K-3W). This OTP is keyed into the DU through the keypad. The DU now expands this to the original large number as generated at the Server end. It also in parallel expands the corresponding secret key at the serial number to the large number using the same non-linear and non-invertible function. The number received (and expanded) from the server and the one created at the DU are compared. If they match, the specific operation is validated, else an error message is created and displayed on the dispensing unit and a log is maintained.
 - (g) The secret keys in the DU are written through fuse links and hence cannot be read back. Sever has a log of these keys and their serial numbers. Since these secret keys cannot be read back at the DU end, there is no way a match will be obtained by any other means.
- 12.0 The scheme mentioned above is one of the many ways of implementing OTP for authorizing and validating Electronic calibration and replacement / installation of Pulsars. Schemes similar to this or better may be used in the DU. Vendors should get their schemes verified by one of the government agencies (CDAC/BEL/ECIL/SAMEER) to ensure that the main features as recommended are implemented in a secure way. The implemented scheme

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- should ensure that each request from the service engineer is logged and a trail of all secure authentications is available for inspection by LIOC or LIOC appointed TPI.
- 13.0 The Server at the Vendor's premises should be a secure Server with access only to the designated officer(s) of the Vendor.
 - 14.0 Log information of all such authentications should be passed on to LIOC, once a month.
 - 15.0 In case of too frequent use of OTPs for authentications for a DU, the Vendor should investigate reasons for such use (say one OTP every month on the same nozzle. Normally only two or three OTPs will be required on a nozzle every year).
 - 16.0 "The Pulsar Unit shall be sealed with the Metering Unit with a single wire sealing & the WM approval to specifically mention the same.
 - 17.0 The Meter - Pulsar link must be inaccessible under sealing"

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Functional Design Specification

1.0 Event, Error & Exception Logs & Audit Trails Minimum Requirement

1.1. Introduction

- 1.1.1. Event: Any transaction taking place in the DU requiring any type of authorization is an 'Event'. For example: password change or dispenser mode change with valid authorization.
- 1.1.2. Error: Any condition / status within DU representing any abnormal situation or for which wrong authorization has been attempted is an 'Error' Record. For example Low Battery, Pulser Failure, Mains Fail etc. are 'Error' records.
- 1.1.3. Exception: Some 'Errors' if repeated (failure related) and critical events / errors are 'Exceptions'.
- 1.1.4. For example Password Validation Error (attempt with wrong password more than 'N' number of times) in the error log is an 'Exception' ('N' has already been defined by the user as 3 (three) in case of consecutive wrong password entries in a day to change the dispensing mode from automation to manual and accordingly three consecutive wrong password entries in a day shall be treated as one instance or exception. Wherever 'N' has not been defined, the same shall be configurable upto 2 digits)
- 1.1.5. Critical events / errors – these events / errors are classified as 'exceptions' moment they occur irrespective of the number of times these happen. Example – Change of K factor / Calibration Changes.
- 1.1.6. The minimum record length for each log shall be 20 unless otherwise specified explicitly.
- 1.1.7. All log data can be viewed on DU LCD display & also can be printed on local printer for hardcopy records. Date, Time information is common to all logs.
- 1.1.8. All logs like event logs / error logs / exception logs shall be configurable. In other words, in case LIOC desire to treat an exception as an error in future the same shall be possible.
- 1.1.9. The events, errors and exception as mention below are the current minimum requirement; vendor is free to add items in any of the lists as per their design. However, attributes of any item appearing in present list would remain unalterable.
- 1.1.10. LOGS CANNOT BE DELITED OR ALTERED.

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2.0 EVENT LOGS AS PER LANKA IOC REQUIREMENT

	Description	Remarks	Number of changes to be recorded in
	Dispenser Mode Changes	Parameter stored: New Mode, User Level, Date and Time.	20 (twenty)
	Password Audit – Reset / Changes/Attempts	Password trail needed for Automation (LIOC) level controlling Auto / Manual mode of DU. Parameter stored: Type-change/reset, User Level, Date, and Time.	10 (ten) instances of 3 consecutive wrong password entries in a day. 60 (sixty) password attempts.
	Rate Change or price change	Parameter stored: Rupee Totalizer, Litre Totalizer, New Rate, User Level, Date and Time	10 (ten)
	Calibration Change or 'K' factor Change History.	Parameter stored: K Factor, Rupee Totalizer, Litre Totalizer, User Level, Date and Time	10 (ten)
	OTP usage	Parameter stored: Nozzle no., Function: E-calibration/Pulser Validation, date and Time	100 (one hundred)
	Hardware Change Audit (except for DU Controller Card where the hardware change Audit is stored)	Parameter stored: Hardware Description, Date and Time.	10 (ten)
	Firmware Change Audit.	Parameter stored: Firmware version, checksum, User Level, Date and Time	10 (ten)
	Sale Transaction Log	Last 10 deliveries Parameter stored: Transaction Number, Rupee Sale, Litre Sale, '- Rate, Date and Time.	10 (ten)
	Set Density	Parameter stored: Litre Totalizer, New.Density,. User Level, Date and Time	10 (ten)
	Preset sale termination (PST)	Parameter stored: Preset quantity, Delivered quantity, Date, Time.	200 (two hundred)
	Daily Test Delivery	Parameter stored: Date and Time	120 (One hundred and twenty)
	Pump-motor Switch off due to Non delivery for max 30 secs	Parameter stored: Date and Time	200 (two hundred)
	Errors & Warnings (to be stored in the event log file excluding those like	Parameter stored: Error /Event number, User Level, Date,	20 (twenty)

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3.0 ERROR / WARNING AS PER LANKA IOC REQUIREMENT

S No	Description	Remarks
1.	Pulser 1 Failure	Error displayed & logged, pump continues to function
2.	Pulser 2 Failure	Error displayed & logged + Pump stops
3.	Low battery	Error displayed & logged + Pump stops
4.	Mains failure/under voltage	Error displayed & logged + Pump stops
5.	Display error	Error displayed & logged + Pump stops
6.	Software version validation	Error displayed & logged + Pump stops
7.	Hardware version validation	Error displayed & logged + Pump stops
8.	Memory corruption	Error displayed & logged + Pump stops
9.	Printer error	Error is displayed & logged, Pump continues to
10.	System Link error	Error displayed & logged + Pump stops(Links that failed

4.0 DATA FORMAT OF PARAMETERS

Date

DO MM YY (3 Bytes)

Time

HH MM (2 Bytes)

User Level

User ID 1-3(1 Byte)

Litre Totalizer

12 digits with 0.01 litre resolution (6 bytes)

Rupee Totalizer

9 digits with 0.01 Rupee resolution (4 bytes)

Rate

5 digits with 0.01 Rupee resolution (3 bytes)

Litre sale

8 digits with 0.01 litre resolution (4 bytes)

Rupee sale

8 digits with 0.01 Rupee resolution (4 bytes)

Transaction Number

4 digit number (2 bytes)

Dispenser Mode

One digit mode information (1 byte)

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Error Code -

One digit mode information (1 byte)

Calibration K Factor

Calibration factor (2 bytes)

Firmware Version & Checksum

2 bytes Firmware version, 2 bytes communication protocol version, 2 bytes checksum

(6 bytes) Hardware Description

1 byte hardware family number & 3 bytes serial number (4 bytes)

Note: Vendor to develop data format for all logs like event logs / error logs / exception logs in line with the above and declare the same in their offer,

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5.0 User Levels & Pump Parameter Configuration Minimum Requirement.

A. User Levels

1.0 Description of User Levels

The User Level explains access rights to various user levels for Read or Modify access of pump parameters. Each pump parameter has its configuration data stored in own memory which defines the user level & access permissions. By changing the configuration data in the memory, Supervisory Level can alter the access rights of the various parameter of Operator Level. User Levels are 1, 2 and 3. The Password is of 4 digits numeric for each level and can be changed only by entering previous set valid password. The User Levels are as explained in the table below.

1.1 Factory Level

This is highest level user password. Suitable provision shall exist in the DU hardware so that the Factory Level password can be operated at the Factory only. Vendor is also required to keep this password into their safe custody and ensure that the password is not known to operating people in the field.

This password would be used for changing key parameters or resetting. Factory Level user can access Pump Parameters which are generally configured during manufacturing. No other level of password should override Factory Level password & access rights. Factory Level user can read all Pump Parameters and configure them. **Only permissible use of Factory Level Password in the field would be to reset the Supervisory level of password.**

Vendor to declare how the Factory level of password as described above is implemented (whether through a hardware dongle key or a hardware switch) in their offer.

1.2 Supervisory Level

This is level 2 user. This is generally a supervisory level of User. This level user can access supervisory parameters of pump like electronics calibration access, calibration history, log history, event history, firmware version history, date & time setting etc. This level of user will also be able to alter the parameter user level & access rights of the next lower level - Operator Level. , Supervisory Level User(s) shall be able to change their own password as well as reset the Operator Level password to default.

The supervisory password would be operated by the DU vendor authorized personnel in the field.

1.3 X-Level

This level is for giving X-level access for E-calibration

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1.4 Operator Level

This is a level I user. Generally the RO dealer (End User) or his authorized personnel is the Operator level user. The Operator level user can access parameter of pump i.e. last 10 sale transaction, rate setting and dealer's name and address configuration etc. The User shall be able to change their own password. This User Level shall not have rights to alter user level & access rights of various pump parameters.

1.5 Automation Level

The default mode of DU when dispatched from OEM factory shall be in manual mode (factory setting). Pump shall have two modes, Manual & Automation. There will be no specific mode as 'Only Automation. Pump shall have a 4 digits numeric value '0000' as default password which would be used for initial configuration, IOGL's representative will be prompted to change the default password after the pump is commissioned.

Pump shall switch over to automation mode the moment it senses the communication while dispensing in manual mode. In case the pump is dispensing in manual mode and communication is sensed on the port, the pump shall switch over to automation mode after the on-going delivery in manual mode is completed and pump is in idle state. In order to switch over from 'automation' to 'manual' mode, the pump will always ask for a password for authentication and allowing the pump to operate in manual mode. In order to bring the pump in manual mode (even when automation system is healthy and connected to the pump), it would be required to remove the communication link (2 wires) & then bring back the pump in manual mode using password.

In case of entering wrong password, 3 consecutive times in a day, the pump will work in automation mode only. The pump will not give any further option to change the mode for the day. The choice for retrying the password shall be available only after End-Of-Day i.e. after 00:00:00 hrs (date change). Dispenser to log the following events (also described elsewhere in this document) for viewing at the DU end. This log shall be in an exportable data format.

- Password attempts –(60 attempts max, with date & time stamp)
 - Pump Mode change– (20 events, with date & time stamp, only Automation to Manual Mode change events shall be logged.
 - Specific 'instances / exception' (3 consecutive wrong password entries in a day to be treated as one instance or exception) -(10 instances, with date & time stamp)
- Once 10 consecutive "instances / exception" as per (III) above are logged, any more attempts (maximum three) with a wrong password shall lead to permanent locking of the password and DU in default Automation mode. Subsequent unlocking/ resetting shall be possible only at the DU OEM factory.

The logs can be viewed & printed only using the password as set in the system. After each power recycle / turning 'ON', The pump shall remember the previous mode of operation (Manual or Automation) and continue with the previous mode without prompting for an option for selecting any pump mode. It is clarified

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that continuation of the pump in manual mode would be subject to non availability of automation.

B. Pump Parameter Access

1.0 Express Parameter Access

Some read / write parameters like date, time, electronic totalizer shall be accessible without user level password entry. These parameters can be accessed by pressing specific key (P2, *, #, function key) followed by two digit parameter code. Some of these parameters are illustrated below.

Specific key + 00

To enter vehicle number and print receipt. Specific key + 01

To display the volume and rupee totalizer

Specific key + 02

To view last transaction data

Vendor to declare the read / write parameters accessible without user level password entry in their offer.

2.0 Secured Pump Parameter Access

All pump parameters are only accessed through user level & correct password. The access to pump parameters is restricted as per the access rights setting in configuration data of respective pump parameter.,

3.0 Control & Changes in User Level Password

Dispensers will be programmed to default Supervisory & Operator password & the same shall be conveyed to Oil companies. User Level password can be altered by the user with current valid password.

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C. Pump Parameter Configuration

ID	Description	Rights
Vendor to specify	Pump Mode Selection: Selection the Pump Mode 1. Manual Mode. 2.Auto Mode.	Automation
-do-	To Set Pump Number	Supervisory
-do-	To Set Date	Supervisory
-do-	To Set Time	Supervisory
-do-	To Enter Dealer Information	Operator
-do-	To Print Volume and Rupee Totalizer	Operator
-do-	To Print Last 10 Sale Transaction Duplicate	Operator
-do-	To Reset Receipt Serial Number	Automation
-do-	To View Last 10 Price Changes	Automation / Supervisory
-do-	To View Last 10 calibration K factor Changes	Automation / Supervisory / X- level
-do-	To Print Last 10 Calibration K factor Changes	Automation / Supervisory/ X- level
-do-	To Print last 100 OTP usage instances	Automation / Supervisory/ X- level
-do-	To Print Test Delivery logs (for the last months)	Automation / Supervisory/ X- level
-do-	To Print logs of <u>Pump motor switch-off due to non-delivery</u>	Automation / Supervisory/ X- level
-do-	To View Last 20 Dispensing Mode Changes	Automation / Supervisory
-do-	To View Last 10 Sale Transaction.	Operator
-do-	To Set Rate	Operator
-do-	To Set Density	Operator
-do-	To Set Density Upper Limit	Supervisory
-do-	To Set Density Lower Limit	Supervisory -
-do-	To View Last 20 Error Codes	Automation / Supervisory -
-do-	To View Last 10 Hardware Changes	Automation / Supervisory
-do-	To View Last 10 Firmware Changes	Automation / Supervisory
-do-	To View Current Firmware Version and Checksum	Automation / Supervisory
-do-	To View the battery Status.	Automation / Supervisory
-do-	To Clear Pulser Fail Error.	Supervisory
-do-	To Set Maximum Fueling Volume	Supervisory
-do-	To Set Maximum Fueling Amount	Supervisory
-do-	To Set Pump Motor Time Out (Start Fueling Time Out)	Supervisory
-do-	To set the fueling suspend time out	Supervisory
-do-	To Set the Preset Timeout	Supervisory
-do-	To Set the Value to Round the Amount	Factory / Manufacturer
-do-	To Set the Value to Round the Preset Amount	Factory/Manufacturer
-do-	To View Last 10 Password Changes	Automation / Supervisory
-do-	To configure User Permission for Setting Pump	Factory / Manufacturer

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-do-	To Configure User Permission for Setting Date	Factory /Manufacturer
-do-	To Configure User Permission for Setting Time	Factory/Manufacturer
	To Configure User Permission for Entering Dealer information	Factory /Manufacturer
	To Configure User Permission for Printing Volume and Rupee	Factory/Manufacturer
-do-	To Configure User Permission for Printing Last 10 Sale	Factory/Manufacturer
-do-	To Configure User Permission for Resetting Receipt Serial	Factory /Manufacturer
-do-	To Configure User Permission for Viewing Last 10 Price	Factory /Manufacturer
-do-	To Configure User Permission for Viewing Last 10 Calibration	Factory/Manufacturer
-do-	To Configure User Permission for Printing Last 10 Calibration	Factory /Manufacturer
-do-	To Configure User Permission for Viewing Last 10 Dispensing	Factory /Manufacturer
-do-	To Configure User Permission for Viewing Last 10 Sale transactions.	Factory/Manufacturer
-do-	To Configure User Permission for Setting Rate	Factory /Manufacturer
-do-	To Configure User Permission for Setting Density	Factory /Manufacturer
-do-	To Configure User Permission for Setting Density	Factory/Manufacturer
-do-	To Configure User Permission for Setting Density	Factory /Manufacturer
-do-	To Configure User Permission for Viewing Last 20	Factory /Manufacturer
-do-	To Configure User Permission for Viewing Last 10 Hardware	Factory/Manufacturer
-do-	To Configure User Permission for Viewing Last 10 Firmware	Factory /Manufacturer
-do-	To Configure User Permission for Viewing Current Firmware	Factory /Manufacturer
-do-	To Configure User Permission for Viewing the	Factory/Manufacturer
-do-	To Configure User Permission for Selecting the	Factory /Manufacturer
-do-	To Configure User Permission for Clearing Pulser	Factory/Manufacturer
-do-	To Configure User Permission for Setting Maximum Fueling	Supervisory
-do-	To Configure User Permission for Setting Maximum Fueling	Supervisory
-do-	To Set Pump Motor Time Out (Start Fueling Time	Supervisory
-do-	To Configure User Permission for Setting the Fueling Suspend	Supervisory
-do-	To Configure User Permission for Setting the	Supervisory
-do-	To Configure User Permission for Setting the Value to Round the Amount Factory	Factory /Manufacturer
-do-	To Configure User Permission for Setting the Value to Round the present Amount	Factory /Manufacturer
-do-	To Configure User Permission for Viewing Last 10 Password	Factory /Manufacturer
-do-	To Reset Supervisor Password to Default To Reset Operator	Factory /Manufacturer
-do-	To Reset Operator Password to Default	Supervisory
-do-	To change Supervisor Password	Factory /Manufacturer
-do-	To Change Operator Password	Supervisory

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No Automation No Fueling

Password feature for “No Automation No Fueling”

1. The default mode of DU when dispatched from OEM factory shall be in manual mode (factory setting).
2. Pump shall have two modes, Manual & Automation. There will be no specific mode as “Only Automation”.
3. Pump shall have a 4 digit numeric value “0000” as default password which would be used for initial configuration.
4. Lanka IOC’s representative will be prompted to change the default password after the pump is commissioned
5. Pump shall switch over to automation mode the moment it senses the communication while dispensing in manual mode. In case the pump is dispensing in manual mode and communication is sensed on the port, the pump shall switch over to automation mode after the on-going delivery in manual mode is completed and pump is in idle state.
6. In order to Switch over from ‘Automation’ to ‘manual’ mode, the pump will always ask for a password for authentication and allowing the pump to operate in manual mode.

Note: In order to bring the pump in manual mode (even when automation system is healthy and connected to the pump), it would be required to remove the communication link (2 wires) & then bring back the pump in manual mode using password

7. In case of entering wrong password, 3 consecutive times in a day, the pump will work in automation mode only. The pump will not give any further option to change the mode for the day. The choice for retrying the password shall be available only after End-Of-Day i.e. after 00:00:00 hrs (date change). Dispenser to log the following events for viewing at the DU end and log shall be in an exportable data format which would be circulated to all the DU vendors once the vendors give their feedback thid agree for a common document format by 31/07/2009 failing which Lanka IOC shall decide unilaterally:
 - (i) Password attempts – (60 attempts max, with date & time stamp)
 - (ii) Pump Mode change– (20 events, with date & time stamp), Only Automation to Manual Mode change events shall be logged.)
 - (iii) Specific “Instances” (3 consecutive wrong password entries in a day to be treated as one instance) - (10 instances, with date & time stamp)

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8. Once 10 consecutive “instances” as per (iii) above are logged, any more attempts (maximum 3) with a wrong password shall lead to permanent locking of the password and DU in default “Automation” mode. Subsequent unlocking/ resetting shall be possible only at the DU OEM works.
9. The logs can be viewed & printed only using the password as set in the system.
10. After each power recycle / turning “ON”, the pump shall remember the previous mode of operation (Manual or Automation) and continue with the previous mode without prompting for an option for selecting any pump mode. It is clarified that in line with guidelines given in para 5, continuation of the pump in manual mode would be subject to automation not being available.

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- A. “The following communication to be passed on by the Dispensing Unit through its protocol to the Automation system”.
1. Dispensing Unit make, model and Sl. No. along with its software version
 2. Pulsar card specification, Control/mother card specification to Automation system.
 3. Idle time out setting for each nozzle of the Dispensing Unit
 4. Pre-set (Quantity and Volume) and Actual delivery effected (Quantity and Volume) from Dispensing Unit.
 5. Integration of Dispensing Unit inbuilt printer with Automation System in order to generate transaction receipt of Automation System and “No Print No Delivery” feature control through Automation.
 6. Status of inherent “No Print No Delivery” (NPND) feature in Dispensing unit - Whether it is in “enabled” or “disabled” state and logs.
 7. Prints taken from Dispensing Unit inbuilt printer
 8. Threshold Volume and Amount based “No Print No Delivery” (NPND) feature in Dispensing Unit.
 9. Price change log carried out at Dispensing Unit end, while the Dispensing Unit is in manual mode. Since, in automation mode, the prices fed in FCC would prevail upon the Dispensing Unit.
- B. All events and logs defined as per Para 2.0 FDS document version 7.2 to be communicated to Automation System.
- C. Provision to accept density, which is fed centrally in Automation system for display at Dispensing unit similar to the feature of Retail Selling Price feed.

Note:

- A. Vendor to attach Quality Assurance Plan (QAP) to be included as part of supply of the meters & submit the same as part of bids. The format is enclosed in the tender documents.
- B. Vendor to attach catalogues, technical data sheet of the items to be offered as part of supply & submit the same as part of technical bid.

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THIRD PARTY INSPECTION (TESTING OF MATERIALS):

- 1 The QAP for the supply of dispensing units shall have to be approved through any one among the list of Third party inspection agencies attached. Additionally, the materials required for this item shall also require third party inspection / clearance from any agency from the 'list attached. The Contractor shall carry out the various tests as enumerated in the technical specifications of this tender document and the technical documents that will be furnished to him during the performance of the work and no separate payment shall be made unless otherwise specified in schedule of rates.
- 2 All the tests either on the field or at outside laboratories concerning the supply of materials by the Contractor shall be carried out by Contractor at his own cost.

INSPECTION AND QUALITY CONTROL

- 1 Detailed Quality Assurance Plan (QAP) shall be got vetted through any one among the list of consultants/agencies attached or affiliated agencies and submitted to LIOC for final clearance.
2. DU Testing procedure duly vetted by TPI agency shall be submitted for LIOC's clearance.
3. The materials shall be inspected at the Manufacturer's workshop by TPI agency/ LIOC representative prior to dispatch.
4. Pattern approval for each model of DU from Weight & Measure Dept, Sri Lanka has to be obtained within 1 month from the date of supply of the DU'S by the successful party.

LIST OF INSPECTION AGENCIES

1	M/s Projects & Development India Ltd., Bengal Chemical Building, 1 st Floor, 502, S.V.Savarkar Marg, Prabhadevi, Mumbai - 400025
2	M/s Loyd's Register of Shipping., Solitaire Corporate Park,Bldg. No 1, 4 th Floor, 151 M. Vasanji Road, Chakala, Andheri (East), MUMBAI - 400093
3	M/s Indian Register of Shipping, 52 A, Adi Shankaracharya Marg, Opp. Powai Lake, Powai, Mumbai - 400072
4	M/s Bureau Veritas Industrial Services (India) Pvt Ltd., The Leela Galleria, 5 th Floor, Andheri Kurla Road, Andheri (E),MUMBAI - 400059
5	M/s Det Norske Veritas., Emgeen Chambers, 5 th Floor,10, CST Road (Opp. Kalina University Campus), Santacruz (East), MUMBAI - 400092
6	M/s Certification Engineers Intl. Ltd. (CEIL)., Great Eastern Chambers, 5 th Floor, Sector II, Belapur CBD, NAVI MUMBAI - 400614
7	M/s Directorate General of Supplies & Disposals (DGS&D)., 1 st Floor, Director of Quality Assurance, Ayakar Bhawan Annexe, New Marine Lines, Mumbai - 400020
8	M/s SGS India Ltd., SGS House, 4B, Adi Shankaracharya Marg, Vikhroli, Mumbai - 400083
9	M/s Rail India Technical & Economic Services., Western Region, Inspection Wing, 2 nd Floor, Churchgate Station Building, Churchgate, Mumbai - 400020
10	M/s UL India Pvt. Ltd., 205-209, 2 nd Floor,Prestige Meridian - 1 29, MG Road,Bangalore - 560001
11	Indian Institute of Technology, Kanpur / Mumbai / Delhi / Chennai / Kharagpur / Guwahati

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[NB]: Inspection may be carried out through any branch of the above mentioned agencies. In case, the vendors desires a change, the same may please be brought out and written approval be taken from Lanka IOC.

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STATUTORY APPROVALS & CAPACITY CONFIRMATION

A. APPROVALS BY PETROLEUM & EXPLOSIVES SAFETY ORGANISATION, (PESO):

Sl. NO	MODEL TYPE REQUIRED BY LIOC	Vendor's Offered Model name	Certificate No & Date of offered model	Certificate Valid up to	Issuing Authority
1.	SD SD DUO (Suction type)				
2.	SD HD DUO (Suction type)				
3.	MPD 3P6H2D - SDxSDxSD (Suction type)				
4.	MPD 4P8H2D- SDxSDxHD (Suction type)				

B. UL / CE - ATEX APPROVALS:

Sl. NO	MODEL TYPE REQUIRED BY LIOC	Vendor's Offered Model name	Certificate No & Date of offered model	Certificate Valid up to	Issuing Authority
1.	SD SD DUO (Suction type)				
2.	SD HD DUO (Suction type)				
3.	MPD 3P6H2D - SDxSDxSD (Suction type)				
4.	MPD 3P6H2D- SDxSDxHD (Suction type)				

C. MODEL APPROVALS BY DEPT. OF LEGAL METROLOGY SRI LANKA:

Sl. NO	MODEL TYPE REQUIRED BY LIOC	Vendor's Offered Model name	Certificate No & Date of offered model	Certificate Valid up to	Issuing Authority
1.	SD SD DUO (Suction type)				
2.	SD HD DUO (Suction type)				
3.	MPD 3P6H2D - SDxSDxSD (Suction type)				
4.	MPD 3P6H2D- SDxSDxHD (Suction type)				

D. OIML APPROVAL:

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Sl. NO	MODEL TYPE REQUIRED BY LIOC	Vendor's Offered Model name	Certificate No & Date of offered model	Certificate Valid up to	Issuing Authority
1.	SD SD DUO (Suction type)				
2.	SD HD DUO (Suction type)				
3.	MPD 3P6H2D - SDxSDxSD (Suction type)				
4.	MPD 3P6H2D- SDxSDxHD (Suction type)				

E. CAPACITY CONFIRMATION:

	DU MODEL.	Qty (Nos.)	Confirmation to supply full quantity in case contract is awarded (YES/NO).	If confirmation to supply full quantity is indicated as 'NO', please give the actual capacity available
	SD SD DUO (Suction type)	200		
	SD HD DUO (Suction type)	200		
	MPD 3P6H2D - SDxSDxSD (Suction type)	15		
	MPD 3P6H2D- SDxSDxHD (Suction type)	05		

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STATEMENT OF CREDENTIALS

- Bidders are advised to submit the following data with relevant certified supporting documents (photocopies). Incomplete tenders may be rejected and Price Bid shall not be opened.

General Information

1	Name of the Company *	
2	Address	
3	Name of the Contact person	
4	Nature of Organization (i.e proprietorship/ partnership/ Pvt Ltd/ etc) *	
5	VAT Registration (i.e Copy of VAT registration issued by inland revenue) *	
6	Telephone / Fax/ Email	
7	Registration with Govt./ any organization *	
8	Any other details	

- Please attach photocopy of relevant documents (Mandatory).
- Interested Party should have an average annual Financial Turnover as mentioned in the NIT or above in the last 3 financial years ending 31st March 2017.

Financial Year	Turn Over (LKR/USD/EURO)	Remarks
2017 - 2018		Photocopy of balance sheet to be submitted. (Mandatory)
2016 - 2017		
2015 - 2016		

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Note: In case of non-submission of balance sheet for any particular FY, the same shall be considered as ZERO for computation of avg. Turn Over.

3. Interested contractors should have successfully completed similar work as mentioned in the NIT.

Name of the Client	Name of the Work	Work Order Details	Value of completed works	Date of completion	Remarks
					Photocopies of Purchase Order / Bill Copy & Payment receipt and/ or Work Completion Certificate (including value of work completed) issued by Client to be submitted. (Mandatory)

* Please attach separate sheets duly typed incorporating above information

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PROFORMA OF DECLARATIONS TO BE FURNISHED BY THE TENDERERS

DECLARATION - 'A'

We declare that we have complied with the Conditions of Contract (Part I & II)

Date :

Place :

**Tenderer's signaturer
Seal**

DECLARATION - 'B'

We declare that we do not have any employee who is related to any officer of LIOC PLC
OR

We have the following employees working with us who are near relatives of the Officer Director of LIOC

Name of the employee of the Tenderer	Name & designation of the Officer of LIOC

Date :

Place :

**Tenderer's Signature
Seal**

DECLARATION - 'C'

The Tenderer is required to state whether he is a relative of any Director of LIOC or the Tenderer is a firm in which any Director of LIOC or his relative is a partner or any other partners of such a firm or alternately the Tenderer is a private company in which Director of LIOC is a member or Director.

S/N	PARTICULARS	DETAILS
1	Name of the Tenderer and his relations with the Director in LIOC.	
2	Name of the Director of LIOC who is related to the Tenderer.	
3	Name of the Director of LIOC who is a member or a Director of the firm.	

Date :

Place :

Tenderer's Signature

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Seal

DECLARATION - 'D'

Tenderer is required to state whether they have employed any retired Director and above rank officer of LIOC in their firm. If so, details hereunder to be submitted.

S/N	PARTICULARS	DETAILS
1	Name of the person	
2	Post last held in LIOC	
3	Date of retirement	
4	Date of employment in the firm	

Date :

Place :

**Tenderer's Signature
Seal**

N.B.

- A separate sheet may be attached, if the above is not sufficient.
- Strike out whichever is not applicable. If the tenderer employs any person subsequent to signing the above declaration and the employee/s so appointed happens to be the near relatives of the Officer/Director of LIOC, the tenderer should submit another declaration furnishing the name/s of such employee/s who is/are related to the officer/s of LIOC
- List of Directors of LIOC board is attached.

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DECLARATION FOR DOWNLOADING DOCUMENTS FROM WEBSITE
(To be submitted by tenderers downloading documents from Website)
(To be signed by Power Of Attorney holders)

I/We hereby declare that:

I/ We have downloaded the documents pertaining to the subject tender from www.lankaio.com containing all attachments including the drawings forming part of tender.

I/ We have submitted printout of all the above documents along with the tender and have not altered the tender documents.

I/ We understand that it is our responsibility to download all the above documents and submit printout of the same before due date & time of closing of Tender. I/ We also hereby undertake to confirm that our bid shall not be considered by the LIOC in case all the documents forming part of the tender hosted on the website are not submitted by us.

Name:

Address:

Date:

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LIST OF DIRECTORS OF LANKA LIOC PLC

SN	NAME OF THE DIRECTORS & ADDRESS
01	Mr. Ranjan kumar Mohapatra , Chairman LIOC, Director (HR) Indian Oil Corporation Limited, Indian Oil Bhavan, G-9, Ali Yavar Jung Marg, Bandra (East), <u>Mumbai (India) - 400 051.</u>
02	Mr. N V N Ramsai , Director LIOC, ED (Finance), Indian Oil Corporation Limited, (Marketing Division), Indian Oil Bhavan, G-9, Ali Yavar Jung Marg, Bandra (East), <u>Mumbai (India) - 400 051.</u>
03	Mr. Sajeev K Jain , Director/ LIOC, ED (Retail Sales) Indian Oil Corporation Limited, (Marketing Division), Indian Oil Bhavan, G-9, Ali Yavar Jung Marg, Bandra (East), <u>Mumbai (India) - 400 051.</u>
04	Mr. Shyam Bohra , Managing Director, LIOC, 20 th Floor, West Tower, World Trade centre, Colombo - 01, Sri Lanka.
05	Prof. Lakshman R. Watawala , Director, Lanka IOC PLC, No: 102/ 5, Barnes Place, Colombo - 07, Sri Lanka.
06	Mr. Amitha Goonaratne , Director, Lanka IOC PLC, No 110, Noris Canal Road, Colombo - 10, Sri Lanka.

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PROFORMA OF DECLARATION OF BLACK LISTING/ HOLIDAY LISTING

(FORMAT TO BE TYPED ON TENDERERS' LETTERHEAD AND SUBMITTED ALONG WITH TECHNICAL BID DOCUMENTS WITH SIGNATURE AND STAMP)

In the case of a Proprietary Concern:

I hereby declare that neither I in my personal name or in the name of my Proprietary concern M/s. _____ which is submitting the accompanying Bid/Tender nor any other concern in which I am proprietor nor any partnership firm in which I am involved as a Managing Partner have been placed on black list or holiday list declared by except as indicated below:

(Here give particulars of blacklisting or holiday listing, and in absence thereof state "NIL")

In the case of a Partnership Firm :

We hereby declare that neither we, M/s. _____, submitting the accompanying Bid/Tender nor any partner involved in the management of the said firm either in his individual capacity or as proprietor or managing partner of any firm or concern have or has been placed on blacklist or holiday list declared by LIOC except as indicated below :

(Here give particulars of blacklisting or holiday listing and in the absence thereof state "NIL")

In the case of Company:

We hereby declare that we have not been placed on any holiday list or black list declared by LIOC except as indicated below :

(Here give particulars of black listing or holiday listing and in the absence thereof state "NIL")

It is understood that if this declaration is found to be false in any particular, LIOC shall have the right to reject my/our bid, and if the bid has resulted in a contract, the contract is liable to be terminated.

Place :

Signature of Bidder:

Date :

Name of Signatory:

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PAYMENT TO VENDORS THROUGH ELECTRONIC MODE

Format for giving consent and bank details on letter head

Dated:

To,
M/s Lanka IOC PLC.

Dear Sir,

With reference to your advise, we hereby agree to accept the payment of our bills through “ACH/ CEFTS/ Electronic Mode”.

The desired bank account details are given below:

1.	Vendor Code allotted by LIOC in SAP	
2.	Name of Beneficiary (i.e LIOC Vendor)	
3.	Name of the Beneficiary's Bank	
4.	Address of the Beneficiary's Bank Branch	
5.	Contact details of Bank Branch with STD Code	
6.	Beneficiary's Bank Account No.	
7.	Beneficiary's Account Type (SB/CC/CA)	
8.	Beneficiary's Bank Code	
9.	Beneficiary's Bank Branch Code	
10.	Mobile No of Beneficiary	
11.	E-Mail Id of Beneficiary	

I hereby declare that the particulars given above are correct and complete. I agree to receive Transactional SMS / E-Mail Alerts from Bank/ LIOC with regard to my bill payments.

(Signature with seal of Account Holder)

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GENERAL TERMS AND CONDITIONS OF TENDER

1.0 DEFINITIONS:

1.1. “PURCHASER”

The “Purchaser” means LANKA IOC PLC with its office at Level 20, West Tower, World Trade Centre, Echelon Square, Colombo - 01, Sri Lanka

1.2. “TENDERER”

Tenderer means the person, firm or company who submits an offer for the enquiry.

1.3 “EQUIPMENT / GOODS / MATERIALS”

“Equipments /Goods/ Materials shall mean any of the articles, materials, instruments, machinery, equipment, supplies, drawings, data and other property and all services including but not to design, delivery, installations, inspection, testing and commissioning specified or required as per the Purchase Order.

1.4 “INSPECTORS”

Inspectors deputed by Purchasers.

1.5 “VENDOR”

Vendor shall mean the person, firm or Corporation on whom the Purchase Order is issued.

2.0 SPECIFICATION:

2.1 Specifications for dispensing units and thermal printer and accessories is enclosed in the tender document.

3.0 PRICE:

3.1 The tenderer must indicate the price in the price bid document in the appropriate space provided. The price shall be hand written/ typed in ink. Price quoted shall not be overwritten. Use of white ink shall be strictly prohibited and shall result in rejection of tender.

3.2 Tenderer should quote their lowest and firm price. The price for supply to be quoted on **CIF COLOMBO BASIS**. The price shall include inland freight, Export packing (sea worthy), document charges etc. Prices so quoted will remain firm till order is placed and thereafter until satisfactory completion of order. The price will not be subjected to escalation for any reason whatsoever.

3.3 The clearance and port handling charges at Colombo port shall be to LIOC account. Further, transportation of equipment from Colombo to Trincomalee including loading and unloading shall be to LIOC account.

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- 3.4 **COMMISSIONING ASSISTANCE:** The dispensing units to be supplied shall be installed from time to time by Lanka IOC at its petrol sheds. The vendor shall be responsible to commission the dispensing units at respective sheds island wide in Srilanka. After commissioning of the dispensing units, the Vendor shall be responsible for attending to comprehensive maintenance of the pumps during the warranty period.
- 3.5 All dispensing units to be supplied by the Vendor shall be manufactured preferably after the date of PO and call up orders. In no case, the DUs shall be of manufactured date earlier than 2 months prior to the date of PO & call up orders. All necessary documents & test certificates in this regard shall be provided by the supplier.
- 4.0 **FIRM PRICE:**
- 4.1 Once the offer is accepted and agreement executed, the rates shall be valid till the completion of works in all respects and no escalation whatsoever will be entertained on any grounds. Similarly no variation or reimbursement shall be entertained due to revisions in statutory tax or levies imposed by the Government of Sri Lanka.
- 5.0 **INSURANCE:**
- 5.1 The materials will be dispatched to Colombo duly insured by the vendor.
- 6.0 **PACKING AND MARKING:**
- 6.1 All materials shall be suitably packed in Sea Worthy packing for transportation by Sea. The packing shall be strong and efficient enough to ensure safe perseverance upto the final point of destination and also to cover shelf life.
- 7.0 **INSPECTION, CHECKING & TESTING:**
- 7.1 The materials shall be subject to inspection and testing by the Vendor before dispatch.
- 7.2 The materials shall be subject to inspection & approval by approved Third Party inspection agency that will carry out the inspection as per QAP to be submitted by the Vendor & approved by LIOC. The inspection charges shall be paid by the Vendor. The rates to be quoted for the equipment / material is inclusive of inspection charges. The above inspection will be without prejudice to accepted Guarantee / Warranty.
- 8.0 **DELIVERY SCHEDULE:**
- 8.1 The delivery of the material is to be completed within (CDD) (given in Special terms & conditions) from the date of the Purchase Order (PO). The Contractual Delivery Date (CDD) will be clearly indicated in the PO and after which compensation for delay will become applicable.
- 9.0 **DISPATCH ADDRESS:**

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9.1 Detailed address of the receiving locations are given in Special terms & conditions.

10.0 RESPECTS FOR DELIVERY DATES:

10.1 Time of delivery mentioned in the tender shall be the essence of the agreement in the event of placement of order and no variation shall be permitted except with prior authorisation in writing from the Owner. Goods should be delivered, securely packed and in good order and condition, at the place and within the time specified in the purchase order for their delivery.

10.2 The contractual delivery period is inclusive of all the lead time for Engineering / Procurement of raw materials, the manufacturing, inspection / testing, packing or any other activity whatsoever required to be accomplished for effecting the delivery at the required delivery point.

11.0 PRICE REDUCTION FOR DELAY:

11.1 Price Reduction for Delay will become applicable for the deliveries given in Special terms & conditions. **For the purpose of calculating price reduction, date of Bill of Lading for each call up order shall be taken as date of supply.**

12.0 EXPEDITING:

12.1 The Owner/Owner's representative shall have free access to vendor's shop and/or sub-suppliers' shop at any time and they shall be provided all the necessary assistance and information to help them perform their job (If assigned to expedite both manufacture and dispatch of materials).

13.0 VALIDITY:

13.1 The rates quoted against this tender shall be valid for a period of **120 days** from the date of opening of the tender and once the quotation is accepted and order placed on the successful tenderer, the rates shall be valid for the entire contract period.

14.0 IMPORT LICENSE:

14.1 LIOC will not provide import license/foreign exchange for the import of any materials. It will be the responsibility of the vendor to arrange for the same whenever and wherever required.

15.0 DISCUSSIONS / NEGOTIATIONS:

15.1 The Purchaser reserves the right to negotiate with the tenderers. In the event of negotiations, the tenderer will be required to confirm the negotiations in writing within the time stipulated. If the tenderer fails to comply with this requirement, the purchaser reserves the right to ignore his quotation at its discretion.

15.2 Vendor will have to attend Head Office of LIOC at Colombo, Sri Lanka for Verification of Original Documents/Clarifications/ Negotiations in respect of their quotations without any commitment on the part of LIOC.

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16.0 QUANTITY:

- 16.1 Purchaser reserves the right to increase/ decrease the quantities indicated in the tender and accept any tender in whole or in part and reject any or all tenders without assigning any reason. Purchaser is not bound to accept the lowest rate for any tender and reserves the right to accept one or more tenders in part or full. The decision of Purchaser in this connection will be final.

17.0 CONFIRMATION OF ORDER:

- 17.1 In the event of placement of order, the vendor shall acknowledge the receipt of the Purchase Order within 14 (Fourteen) days from the date of Purchase Order and shall confirm his acceptance of Purchase Order in its entirety without exceptions. This acknowledgement will be on both Purchase Order and General Purchase Conditions. Vendor shall also submit along with order acceptance, the Security Deposit as specified in Special terms & conditions.

18.0 SALES CONDITIONS:

- 18.1 With tenderer acceptance of provisions of Tender Conditions, the tenderer waives and considers as cancelled any of his General Sales Conditions.

19.0 PAYMENT:

- 19.1 Payment shall be as per the relevant clauses contained in Special Terms and Conditions of Tender.

20.0 DOCUMENTS ALONG WITH DISPATCH OF EQUIPMENT:

- 20.1 Following document shall be sent along with the supply of equipment in triplicate

- a. Bill of Lading
- b. Copy of Commercial Invoice
- c. Packing List
- d. Copy of Certificate of Origin
- e. Test Certificate of materials/ equipment
- f. Third Party Inspection Certificate
- g. Insurance for Ocean freight

The above documents shall also be scanned and sent by mail to the following email:

elamarantk@lankaio.com for clearance of the goods at Colombo Port.

21.0 RECOVERY OF SUMS DUE:

- 21.1 Wherever any claim against the vendor for payment of a sum of money arises out of or under the contract, Owner shall be entitled to recover such sums from any sum then due or which at any time thereafter may become due this sum be not sufficient to cover the recoverable amount the vendor shall pay to the Owner on demand the balance remaining due.

22.0 GUARANTEE:

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- 22.1 All materials including components and sub-contracted Items should be guaranteed by the vendor within the warranty period mentioned below. In the event of any defect in material or workmanship manifesting themselves, the vendor will replace / repair the material at LIOC's location at Trincomalee at Vendors cost.

23.0 WARRANTY:

- 23.1 Option -01: 10 years from the date of dispatch of the materials (Date of BL), during which time the tenderer is bound by the guarantee given above.
- 23.2 Option -01: 02 years from the date of dispatch of the materials (Date of BL) and 08 years Comprehensive AMC, during which time the tenderer is bound by the guarantee given above.
- 23.3 The above guarantee / warranty will be without prejudice to the certificate of inspection issued by the Third Party Inspecting Agency in respect of the materials/ equipment.

24.0 FORCE MAJEURE CONDITIONS:

- 24.1 Delivery of the material is subject to force majeure conditions as under:
- 24.2 If, at any time, during the continuance of the contract, the performance in whole or part by either party of any obligation under this contract shall be prevented or delayed by reasons of any war, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strike, lock-outs or acts of God (hereinafter referred as "events"), then provided notice of the happening of any such events is given by either party to the other within twenty one days from the date of occurrence thereof, neither party shall by reason of such event, be entitled to terminate this contract nor shall either party have any claim for damages against the other in respect of such non-performance or delay in performance and deliveries under the contract shall be resumed as soon as practicable, after such events have come to an end or ceased to exist, and decision of the Managing Director, Lanka IOC PLC as to whether the deliveries have been so resumed or not, shall be final and conclusive provided further that if the performance in whole or part or any obligation under this contract is prevented or delayed by reasons of such event for period exceeding 60 days, either party may at its option terminate the agreement.

25.0 ARBITRATION:

- 25.1 In case of any dispute or difference arising out of contract, the matter shall be referred to the sole arbitration of an officer of Lanka IOC nominated by Managing Director, Lanka IOC PLC whose decision will be final and binding on both the parties. The venue of such arbitration shall be in Colombo.

26.0 POWERS:

- 26.1 All powers reserved under the above conditions shall be exercised by the Managing Director Lanka IOC PLC.

27.0 GENERAL:

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- 27.1 The Tender is not transferable.
- 27.2 All entries in the tender must be written in permanent ink or typewritten and there should be no erasures or over writing. Corrections, if any, should be attested under the full signature of the tenderer.
- 27.3 All rates given in the tender must be expressed both in words and figures and where there is a difference between the two, the rates given in words will be taken as correct. The tenderer has to quote individual item rates essentially in both figures & words, otherwise offer will be rejected.
- 27.4 Any Tender received late or not conforming to the terms and conditions prescribed in the tender documents will be rejected.
- 27.5 When person signing the Tender / Agreement is not the sole proprietor or authorized representative of the Company the original power of Attorney or a notarized certified copy thereof authorizing such person to act and sign on behalf of the company must be produced before signing the documents.
- 27.6 It shall be understood that every endeavor has been made to avoid error which can materially affect the basis of tender and the successful tenderer shall take upon himself and provide for risk of any error which may subsequently be discovered and shall make no subsequent claim on account thereof. No advantage is to be taken either by LIOC or the tenderer of any clerical error or mistake which may occur in the general specification, schedules, plans or Tender Forms supplied to the tenderer.
- 27.7 Any terms and conditions attached / printed overleaf of the vendors offers will not be binding on IOC. Tenders with counter conditions will be rejected.
- 28.0 NON-WAIVER:**
- 28.1 Failure of the Owner / Owner's representative to insist upon any of the terms and conditions incorporated in the Purchase Order or failure or delay to exercise any rights remedies herein or by law or failure to properly notify vendor in the event of breach, or the acceptance of, or payment of any goods hereunder or approval of design shall not release the vendor and shall not be deemed a waiver of any right of the Owner or Owner's representative to insist upon the strict performance thereof or of any of his or their rights or remedies as to any such goods regardless of when goods are shipped, received or accepted or shall any purported oral modification or revision of the order by Owner's representative act as waiver of the terms thereof.
- 29.0 NON ASSIGNMENT:**
- 29.1 In the event of placement of Purchase Order the same shall not be assigned to any other agency by the vendor without obtaining prior written consent of Owner.
- 30.0 COMPLETE AGREEMENT:**
- 30.1 In the event of placement of order the terms and conditions of Purchase Order constitute entire agreement between the parties hereto. Changes will be binding

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only if the amendments are made in writing and signed by an authorised representative of the Owner and the Vendor.

31.0 CANCELLATION:

31.1 We reserve the right to cancel the contract forthwith upon or any time after the happening of any of the following events viz.

- a) If the Tenderer shall commit a breach of any of the terms and conditions of Tender and fail to remedy such breach within fifteen days of the receipt of the written notice from us in regard thereto.
- b) On the death or adjudication as insolvent of the tenderer if he be an individual.
- c) Liquidation whether voluntarily or otherwise on the passing of an effective resolution for winding up the Tenderer if it be a company.
- d) If the attachment is levied or continued to be levied for a period of seven days upon the effects of the Tenderer or of any individual or partners of the tenderer firm.

31.2 If the Tenderer does not adhere to the instructions which may be issued from time to time by us in connection with the manufacture of the material our right to so terminate the contract shall be without prejudice to any of our other rights & remedies against the tenderer and in the event of our so terminating the contract, we shall not be liable to pay for any loss or compensation in respect of such termination.

32.0 DECLARATION:

32.1 We Confirm that our quotation have been prepared after thorough study of the entire Tender documents and agree to all conditions of the tender in toto.

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CONDITIONS OF CONTRACT PART I

General Conditions of Contract shall be in accordance with the following publication by the Institute for Construction Training and Development (ICTAD)- Sri Lanka of the Ministry of Housing, Construction and Public Utilities. (Formerly of the Ministry of Local Government, Housing and Construction)

Conditions of Contract for works of Building & Civil Engineering in Sri Lanka (with Forms of Tender & Agreement) revised edition / January 1989 ICTAD Publication No. SCA/1.

Conditions of particular application are as per Conditions of Contract Part II.

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CONDITIONS OF CONTRACT PART II

CLAUSE 1 : *Definitions and interpretations*

1.1.1 : The Employer is

Lanka IOC PLC
20, West Tower,
World Trade Centre,
Echelon Square,
Colombo 01.

: Sub-clause 1.1.2 is deleted and the following is substituted therefore

The Contractor means the person who has contracted for the works herein specified and its successors and not any assignee of such person.

1.1.3 : Sub-clause 1.1.3 is deleted and the following is substituted therefore

Engineer or Architect or Consultant referred in this tender document is

the person appointed by the Employer to act as Engineer for the purpose of this contract.

1.1.14 : Sub-clause 1.1.14 is deleted and the following is substituted therefore

“Approved” and “Approval” means approved in writing including subsequent written confirmation of previous oral approval.

1.1.17 : The following new Sub-clause 1.1.17 is added

“Day” means calendar day.

1.2 : Sub-clause 1.2 is deleted and the following is substituted therefore

Words importing the singular only also include the plural and vice versa and words importing the masculine gender shall include the feminine and neuter genders.

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CLAUSE2 : Duties and Power of Engineer's Representative

2(1) : The approval of the "Employer" is required before the "Engineer" can execute his duties in accordance with or as defined by the limits of the following clauses:

- (a) Clause 4 Sub-letting
Consenting to the sub-letting of a part of the works if the value of such part exceeds one percent (1%) of the sum indicated in the letter of Acceptance
- (b) Clause 51 Variations
Ordering a variation if the value of such variation is likely to exceed one percent (1%) of the sum indicated in the letter of Acceptance or Rupees One Million, whichever is less.
- (c) Clause 27 Fossils etc.
- (d) Clause 40 Suspension of work

CLAUSE 5 : Language/s and Law

5.1 : The Language is English

5.2 : First sentence "Except..... of the Contract". In the clause 5.2 is deleted and the following is substituted therefore:-

"The provisions of each of the following documents shall always prevail over those of the documents listed below it [Eg: The document listed in (c) will prevail over the document listed in (f)]:-

- (a) The Contract Agreement (when completed)
- (b) The Letter of Acceptance
- (c) The Drawings
- (d) Part I of these Conditions
- (e) Part II of these Conditions
- (f) Tender schedule (Bills of Quantities)
- (g) Specifications
- (h) Any other document forming part of the contract.

CLAUSE 9 : Contract Agreement

The following sentence is added to Clause 9 as the last sentence:-

"The stamp duty on the contract agreement is payable by the

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Contractor”.

CLAUSE 10 : Performance Bond

10(1) Delete Clause 10 and substitute as follows:

“The Contractor shall obtain security for the proper performance of the contract to a value of ten percent (10%) of the contract price and provide the Employer such security within fourteen (14) days after the receipt of the letter of acceptance. Such security or bond will be from a Licensed Commercial Bank in Sri Lanka in the form as annexed or any other form acceptable to the Employer. The costs of compliance with the requirements of this clause shall be borne by the Contractor”.

10(2) The performance Security or Bond referred to in the Clause 10.2 shall remain valid until the issue of maintenance certificate in accordance with Clause 62(1).

CLAUSE 12 The following proviso is added:-

“PROVIDED however the Employer shall not be liable to pay any such additional costs if such conditions or obstructions are proved to be for reasons beyond its control.

CLAUSE 14 Programme to be furnished

The programme shall be submitted within fourteen (14) calendar days after receipt of the Letter of Acceptance.

CLAUSE 15 Construction Management Services

15(1) The portion of this clause starting from “The cost of in line 12 until the end of the clause is deleted and the following is substituted thereof:-
“The cost of this service is deemed to be included in the rates and prices quoted by the contractor and shall not be claimed separately by the Contractor”.

CLAUSE 19 Watching and Lighting

Add the following paragraph to this clause at the end thereof: -

“The Contractor shall indemnify the Employer in the event of any claim arising from any person as a result of the contractor not strictly adhering to the provisions of this clause.

“In the event of any claim or loss arising against or payable by the Employer as a result of the Contractor’s failure or negligence to strictly adhere to the provision of this clause, the Contractor shall be liable to indemnify and keep the Employer indemnified by reimbursement of such claim or loss in a sum certified by the Engineer which sum shall be

deductible from the monies due to the Contractor from the Employer on any bill”.

CLAUSE 20 Care of works

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Clause 20(1)

The word “accepted” occurring in line 30 of Sub-clause 20(1) be corrected to read “excepted”.

Clause 20(2) shall be deleted and the following new clause 20(2) be substituted therefore:

“20(2) The ‘excepted risks’ are (in the opinion of the Engineer) the risks for which the Contractor will not be able to obtain an insurance policy from an Insurance Company in Sri Lanka”.

CLAUSE 21 Insurance of works etc.,

The additional sum referred to in Clause 21(a) shall be ten percent (10%) of the amount stated in the letter of acceptance.

CLAUSE 22 Damage to persons and property

22(1) Item (c) be amended to read as follows:-

“Damage to property which is the unavoidable result of the execution or maintenance by the Contractor without negligence in accordance with the Contract.

22(2) The following proviso is added to the clause 22(2) at the end therefore: -

“PROVIDED such claims proceedings damages coats charges and expenses arise solely due to the negligence of the Employer”.

CLAUSE 24

24.1 Accidents and injury to workmen

Add the words “arising in respect thereof or in relation thereto. The amount certified by the Engineer as due and payable to the Employer by way of such indemnification shall be paid by the Contractor or deducted from the monies due from the Employer to the Contractor” at the end of this clause.

CLAUSE 36

36(2) Clause 36(2) is amended to read as follows: -

“(2) All samples shall be supplied by the Contractor at its own costs.

CLAUSE 45 The following sentence be added at the end of this clause: -

“For the purpose of this clause statutory days of rest means all the Mercantile Holidays as declared by the Government of Sri Lanka”.

CLAUSE 47

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47(3) - Deleted-

CLAUSE 52 A new Sub Clause 52(6) is added as follows:

52(6) “Notwithstanding any other provision of the contract, if the Contractor intends to claim any additional payments, not mentioned in the Bills of Quantities, pursuant to any clause of these conditions or otherwise, the Contractor shall give notice of intent in writing to the Engineer within Twenty Eight (28) days after the event giving rise to the claim has first arisen”.

52(7) A new Sub Clause 52(7) is added as follows: -

Upon happening of the event referred to in Clause 52(6), the Contractor shall keep records as may be necessary to support any claim it may make. The Engineer upon receipt of notice of a claim may instruct the Contractor to provide any records, as may be material to the claim. The Contractor shall permit the Engineer to inspect all records the Engineer considers relevant and supply copies of same when called for.

52(8) A Sub-Clause 52(8) is added as follows: -

“Within Twenty Eight (28) days giving notice under clause 52(6), the Contractor shall send to the Engineer an account giving detailed particulars of the amount claimed and the grounds upon which it is based (together with the available documentary proof).

CLAUSE 53 Sub Clauses 53(5), 53(6), 53(6(a)) & 53(7) are deleted.

CLAUSE 60 Sub Clause 60(1) is deleted and mobilization advance shall not be paid: -

60(1) - Deleted-

60(2)(c) The materials referred to in this Clause (for payment of materials at site) shall be limited to: -

- i. Steel
- ii. Aluminium components.

Monthly statements required in this Clause shall be submitted on or before the 10th day of the succeeding month.

60(7) Sub Clause 60(7) is amended as follows: -

In each of lines 5 and 14 the words and figures “ten (10)” be deleted and the following be substituted therefore: -
“Fourteen (14)”

CLAUSE 65

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65(1)	Last paragraph of this Clause “The Employee shall indemnify.connection therewith” is deleted.
65(5)	This sub-clause be deleted and the following new sub-clause 65(5) be substituted therefore: -
65(5)	The special risks are “ the excepted risks” within the meaning of the amended clause 20(2)”.
65(8)	Items (d), (e) and (f) are deleted.
CLAUSE 66	
66(1)	The words “ The same as that.....hereof” in lines 8 to 11 be deleted and the word “payable” shall be substituted therefore.
CLAUSE 67 67.	Clause 67 be deleted and the following new clause 67 be substituted therefore: - - Deleted-
CLAUSE 68	The words “registered express” be inserted between the words “by” and “post” in the third line.
CLAUSE 70	Original Clause 70 is deleted and the following is substituted therefore: -
70(1)	“The accepted tender will be treated as firm and inclusive of all expenses and taxes payable by contractor and applicable during the entire period of construction”.
70(2)	Notwithstanding any other provisions of this Contract, no variation howsoever in prices will be paid to or deducted from the contractor for fluctuation in prices of materials, components, skilled and unskilled labour and the Contractor will not be entitled to any variation in prices on account of changes in taxes, etc., for imported items/components.
70(3)	The Employer will deduct from the monies due to the Contractor all statutory deductions if any deductible on account of the Contractor and remit to the relevant authorities. A certificate will be issued by the Employer stating the amount deducted and to whom such amounts have been paid. The Contractor shall furnish relevant Tax file numbers to the Employer.
CLAUSE 71	Clause 71 is deleted.
CLAUSE 72	Clause 72 is deleted.

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BANK GUARANTEE IN LIEU OF BID BOND

BG NO: _____

DATED: _____

VALID UPTO: _____

To,
LANKA LIOC PLC
20TH FLOOR, WEST TOWER,
WORLD TRADE CENTRE, ECHELON SQUARE,
COLOMBO - 01
SRI LANKA

Dear Sirs,

In consideration of LANKA IOC PLC (hereinafter called 'LANKA IOC PLC' which expression shall include its successors and assigns), having agreed inter alia to consider the tender of _____ (Name of the Tenderer) _____ having its Head Office/Registered Office at _____ (Address of the Tenderer) _____ (hereinafter called the "Tenderer" which expression shall include its successors and assigns), for the work of _____ (Name of the Project/Work) _____ at _____ to be awarded under Tender No. _____ upon the Tenderer furnishing an undertaking from the Bank as hereinafter appearing in lieu of cash deposit of the Earnest Money. We (Name of the _____ Bank) a Bank constituted/Registered under the _____ Act having our Head Office/Registered Office at _____ (hereinafter called the "Bank" which expression shall include its successors and assigns), at the request of the Tenderer and with the intent to bind the Bank and its successors and assigns do hereby unconditionally and irrevocably undertake to pay LANKA LIOC PLC at Colombo forthwith on first demand without protest or demur or proof or satisfaction or condition and without reference to the Tenderer, all sums payable by the Tenderer as and by way of Bid Bond to LANKA IOC PLC, upto an aggregate limit of (Amount in figures and words).

AND THE BANK DOTH HEREBY FURTHER AGREES AS FOLLOWS:

1. This Guarantee/Undertaking shall be a continuing guarantee and shall remain in full force and effect for all claims or demands made by LANKA IOC PLC on the Bank until LANKA IOC PLC discharges this Guarantee/Undertaking subject, however, that LANKA IOC PLC shall have no claims under this Guarantee/undertaking after the midnight of 201_ or any written extension(s) thereof.

PROVIDED that if the aforesaid work tendered for or any part thereof shall be awarded to the Tenderer on or before the said date, whether on the basis of accompanying tender or any other basis, then the validity of this guarantee/undertaking shall stand automatically extended for all claims and demands made by LANKA LIOC PLC for further three months.

2. LANKA IOC PLC shall have the fullest liberty without reference to the Bank and without affecting in any way the liability of the Bank under this Guarantee/undertaking at any time and/or from time to time any wise to postpone and/or vary any of the powers, rights, and obligations exercisable by

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LANKA IOC PLC against the Tenderer and either to enforce or to forbear from enforcing all or any of the terms and- conditions of or governing the said Tender and/or any contract consequent upon any award of work or the said Bid Bond or the securities available to LANKA IOC PLC or any of them and the Bank shall not be released from its liability under these Presents and the liability of the Bank hereunder shall remain in full force and effect notwithstanding any exercise by LANKA IOC PLC of the liberty with reference to any or all the matters aforesaid or by reason of any other act, matter or thing whatsoever which under law relating to the sureties or otherwise which could, but for this provision have the effect of releasing the Bank from all or any of its obligations hereunder or any part thereof, and the Bank specifically waives any and all contrary rights whatsoever.

3. It shall not be necessary for LANKA IOC PLC to proceed against the Tenderer before proceeding against the Bank and the Guarantee/Undertaking herein contained shall be enforceable against the Bank as principal debtor notwithstanding the existence of any other undertaking or security for any indebtedness of the Tenderer to LANKA IOC PLC and notwithstanding that any such security shall at the time when claim is made against the Bank or proceedings taken against the Bank hereunder, be outstanding or unrealised.
4. The amount stated by LANKA IOC PLC in any demand, claim or notice made with reference to this guarantee shall as between the Bank and LANKA IOC PLC for the purpose of these Presents be conclusive of the amount payable by the Bank to LANKA IOC PLC hereunder.
5. The liability of the Bank to LANKA IOC PLC under this Guarantee/Undertaking shall remain in full force and effect notwithstanding the existence of any difference or dispute between the Tenderer and LANKA IOC PLC, the Tenderer and the Bank and/or the Bank and LANKA IOC PLC or otherwise howsoever touching these Presents or the liability of the Tenderer to LANKA IOC PLC, and notwithstanding the existence of any instructions or purported instructions by the Tenderer or any other person to the Bank not to pay or for any cause withhold or defer payment to LANKA IOC PLC under these Presents, with the intent that notwithstanding the existing of such difference, dispute or instructions, the Bank shall be and remain liable to make payment to LANKA IOC PLC in terms thereof.
6. This Guarantee/Undertaking shall not be determined or affected by the liquidation or winding up or dissolution or change of constitution or insolvency of the Tenderer or any change in the legal constitution of the Bank or LANKA IOC PLC.
7. Without prejudice to any other mode of service, a demand or claim or other communication may be transmitted by LANKA IOC PLC to the Bank either by post or by fax. If transmitted by fax, the transmission shall be complete as soon as acknowledged by bank.
8. Notwithstanding anything contained herein:
 - (i) The Bank's liability under this guarantee/undertaking shall not exceed (Amount in figures & words):

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(ii) This guarantee/undertaking shall remain in force upto _____ and any extension(s) thereof; and

(iii) The Bank shall be released and discharged from all liability under this guarantee/undertaking unless a written claim or demand is issued to the Bank on or before _____ or the date of expiry of any extension(s) thereof if this guarantee/undertaking has been extended.

The Bank doth hereby declare that Mr_____ who is authorised to sign this Guarantee/Undertaking on behalf of the Bank and to bind the Bank thereby.

This _____ day of _____ 20_____

Yours faithfully

Signature: _____

Name & Designation: _____

Email id: _____

Name of the Branch: _____

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PROFORMA OF BG FOR SECURITY DEPOSIT

WHEREAS.....OF.....(hereinafter referred to as the Contractor has agreed to enter into a contract for the consideration of LKR/ USD (LKR/ USD) with the (hereafter referred to as the OWNER) for the construction of Proposed.....

AND WHEREAS it is one of the conditions of the said Contract that the Contractor should furnish a Bank Guarantee in the sum of LKR/ USD..... (LKR/ USD:) and punctual performance and fulfillment of the Contract above referred to.

AND WHEREAS the Contractor has requested the.....to furnish the requisite Bank Guarantee and whereas the..... has agreed to do so.

KNOW THAT..... a Bank incorporated under(Cap) and having its registered office in in consideration of such agreement as aforesaid hereby guarantee undertake bind and oblige ourselves to the OWNER that if the CONTRACTOR shall fail in the and punctual performance and fulfillment of the Contract above referred to, then and in that case to make payment to the OWNER in a sum not exceeding LKR/ USD (LKR/ USD) provided that the rights and remedies of the OWNER hereunder are to be cumulative and in addition to and not in substitution for its rights and remedies under the said contract and this Guarantee shall not be prejudiced avoided or affected by any indulgence or forbearance of the OWNER towards the Contractor in connection with the said Contract.

AND IT IS also hereby agreed that notwithstanding anything to the contrary herein contained this Guarantee shall be valid only up to and including the thirty first day of and shall not thereafter be of any force of avail in law except in respect of claims lodged by the OWNER with under these present on or before the thirty first day of on account of monies that may be and/or become due to the OWNER by the Contractor by reason of his failure to duly and punctually perform and fulfill the Contract above referred to : provided however, that in case shall have before the said thirty first day of, extended the period for validity of this Guarantee upto any date subsequent to the said thirty first day of then the preceding provisions of this Clause shall stand amended and read as if the date to which the Guarantee is so extended had been inserted at the time wherever in the proceeding provisions of the Clause the said date, thirty first day of, occurs and this Guarantee shall have force accordingly. Such period of validity may similarly be extended from time to time so as to keep the Guarantee in full force upto such extended date or dates.

The Bank will not require any proof or judgement, document, decree or any direction from any Court/Arbitrator or otherwise to substantiate the claims of the LIOC against the Suppliers. The right of the LIOC under this Guarantee will not be affected by reason of any pending proceeding before any court or Arbitrator.

Notwithstanding anything contained herein before our liability under this Guarantee is restricted to LKR/ USD.....

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We further agree that this Guarantee shall not be affected by any change in the Constitution of the Bank or the Suppliers.

Date at this day of
FOR

Signature:_____

Name & Designation:_____

Email id: _____

Name of the Branch:_____

WITNESS

Date:

1)

2)

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PROFORMA OF PERFORMANCE BANK GUARANTEE
(To be executed on stamp paper of appropriate value)

PURCHASE ORDER NO. & DATE: _____
BANK GUARANTEE NO.: _____
DATED : _____
AMOUNT RS.: _____
VALID UPTO : _____

LANKA IOC PLC,
LEVEL 20, WEST TOWER,
WORLD TRADE CENTRE,
ECHELON SQUARE,
COLOMBO - 01

Dear Sir,

1. WHEREAS Lanka IOC PLC having its registered office at Level 20, West Tower, World Trade Centre, Echelon square, Colombo (hereinafter called the 'LIOC' which expression shall include its successors, assigns) has placed a Purchase Order No. _____ dtd. _____ on M/s _____ having its Registered Office at _____ (hereinafter called ' the Supplier' which expression shall in so far as the context admits include their successors and assigns) for the purchase of _____ on terms and conditions mentioned in the said Purchase Order.
2. AND WHEREAS in terms of Clause No. _____ of the said Purchase Order the Suppliers are required to submit a Bank Guarantee for 10% of the Supply items value (CIF Value) amounting to Rs. _____ towards the performance of the units during the warranty period spelt out in the said order :
3. AND WHEREAS we _____ the Bank (hereinafter called the 'Bank' which expression shall include its successors assigns) on the request made by the suppliers have agreed to give the required Bank Guarantee aforesaid.

NOW THIS INDENTURE WITNESSETH that it is agreed by and between the parties hereto as follows:

- a. We, the Bank so as to bind ourselves and our successors and assigns do hereby irrevocably undertake and guarantee performance of the units that may be supplied by the suppliers under the above said Purchase Order and do hereby irrevocably undertake to pay to you on demand in writing without demur and without reference to the Suppliers all and any sums of money at any time or from time to time demanded by you upto an aggregate limit of USD. _____ which being the 10% value of supply items of the above said Purchase Order if all or any of the Units that may be supplied by the Suppliers fails in their warranty period mentioned in the Contract.

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- b. We, further, agree that the guarantee herein contained shall remain in full force and effect upto and until the date of completion of the warranty period mentioned in the Contract which is 24 months from date of shipment, provided always that notwithstanding anything heretofore contained the liability of the Bank hereunder shall remain valid till _____ after which date it will automatically lapse unless a demand is made by the LIOC before that date.
- c. Although as between the Bank and Suppliers the Bank is the guarantor only, the Bank agrees and confirms that as between itself and the LIOC, the bank shall be primarily liable for the payment of the amount/s that may be claimed by the LIOC by virtue of this guarantee and that the Bank shall be treated as the principal debtor.
- d. We further agree that the LIOC shall have the fullest liberty without affecting in any manner our obligations hereunder and without reference to us to vary any of the terms and conditions of the said Contract and / or to extend time of performance by the Suppliers from time to time or to postpone for any time or from time to time any of the obligations of the Suppliers or powers exercisable by the LIOC against the Supplier and / or forbear to force any of the terms and conditions of or relating to the said Contract and that we shall not be released from our liability under this Guarantee / Undertaking by reasons of any such variation or extension being granted to the said Supplier or for any forbearance and/or omission on the part of the LIOC or any indulgence by the LIOC to the Supplier.
- e. The Bank will not require any proof or judgement, document, decree or any direction from any Court/Arbitrator or otherwise to substantiate the claims of the LIOC against the Suppliers. The right of the LIOC under this Guarantee will not be affected by reason of any pending proceeding before any court or Arbitrator.
- f. Notwithstanding anything contained herein before our liability under this Guarantee is restricted to USD._____.
- g. We further agree that this Guarantee shall not be affected by any change in the Constitution of the Bank or the Suppliers.

Signed this _____ day of _____

Yours faithfully,

For _____ Bank

Signature _____

Specimen signature No. _____

Name & Designation _____

Name of the Branch _____

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PURCHASE AGREEMENT

(TO BE EXECUTED ON A STAMP PAPER OF APPROPRIATE VALUE)

Articles of Agreement made at COLOMBO this _____ day of _____ Two Thousand and _____ between LANKA IOC PLC, a public liability firm registered in Sri Lanka and having its Registered Office at Level 20, West Tower, World Trade Centre, Echelon Square, Colombo - 01, Sri Lanka, hereinafter referred to as 'Firm' on the one part and M/s _____ Sole/Trader/ Partnership Firm / Private / Public Limited Company registered under the Indian Partnership Act of 1932/Companies Act I, 1956 and having its Office at _____ hereinafter called 'The Seller' which expression shall be deemed to include the Seller's successors (approved by the Firm), representative, heirs, executors and administrators on the other part, WHEREAS the Firm is desirous of obtaining certain Equipment / Materials specified in the attached schedule and / or Purchase Order and WHEREAS the Sellers have agreed with the Firm for the supply of the said stores specified in the said schedule upon certain terms and conditions hereinafter provided and WHEREAS the parties are desirous of reducing to writing the terms and conditions of the contract on which the Sellers have agreed with the Firm for the supply of the said Equipment/Materials, NOW IT IS HEREBY AGREED by and between the parties hereto as under :

1. EQUIPMENT/MATERIALS TO BE SUPPLIED:

The Sellers shall duly supply the said Equipment/Materials as per description, quantity and rates specified in the schedule and/or Purchase Orders placed by the LIOC from time to time and in all respects with the specifications, designs; drawings and instruction in writing referred to in the schedule and or said Purchase Order.

2. PAYMENT:

The Firm shall pay to the Sellers in respect of the said equipment/materials mentioned in the scheduled/Purchase Order on the basis of the rates specified in the said schedule/Purchase Orders.

3. PERFORMANCE GUARANTEE:

The Sellers shall on or before the execution of the Agreement deposit with the Firm a Sum of USD. _____ in Demand Draft/ NG. The Firm shall hold this amount as performance Guarantee for the timely and proper performance of the said contract by the sellers.

All sums of compensation or other sums of money payable by the Sellers to the LIOC under the terms of this Agreement may be deducted from or paid by the Sale of the performance guarantee or from the interest arising there from or from any sums which may be due or may become due by the Firm to the Sellers on any account whatsoever, and in the event of their performance guarantee being reduced by any reason or such deduction or sale as aforesaid, the Sellers shall within 15 days thereafter make good in Cash or only Demand Draft any sum or sums which may have been deducted from/or raised by Sale of the performance guarantee or any part thereof.

The performance guarantee lodged by the Sellers shall be refunded after the expiry of 24 months from the date of supply of equipment or 18 months from the date of Commissioning whichever is earlier.

4. MANNER & PERIOD IN WHICH THE EQUIPMENT/MATERIALS ARE TO SUPPLIED:

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The Sellers agree and undertake to supply the Equipment/Materials set forth in the Schedules/Purchase Order No. _____ dt. _____ and subsequent amendments if any, issued thereto from time to time.

The Said Equipment/materials being goods of merchantable quality shall throughout the stipulated period of the contract be supplied with the due diligence, promptness, care and accuracy and in a workman like manner to the satisfaction of the Firm and in accordance with the said specification, designs, drawings and instructions or before the aforesaid due date, time being the essence of the contract on the part of the Sellers.

5. COMPENSATION FOR DELAYS IN DELIVERY:

The Sellers hereby agree to pay to the Firm by way of Compensation for Delays in delivery, and not as penalty, an amount equal to 1 % (one percent) of the contracted price of the materials so delayed for each week or part thereof of such delay in delivery subject to a maximum of 10% of such price.

6. INSPECTION OF SUPPLIES:

6.1 The Firm through its authorised representative reserves the right to inspect periodically during the manufacture or before delivery all equipment and materials and workmanship for the acceptance of quality and efficiency.

6.2 All equipment and materials under or in course of execution or executed in pursuance of this contract, shall at all times be open to the inspection and supervision of the Firm and their authorised representative and Agents. The Sellers shall at all time, during the usual working hours and at all other times after having received reasonable notice, allow the Firm and their authorised representatives and agents to visit the contractor's premises and carry out the necessary orders and instructions.

7 PAYMENT:

Invoices shall be submitted by the Seller immediately on delivery/despatches of equipment/ materials, to the Bankers of the Firm. The Firm undertakes to make payment as per the payment terms given in the contract documents.

8 AGREEMENT:

8.1 This Agreement is subject to the General Conditions of Contract in so far as the same is not inconsistent with or repugnant to the above clauses. A copy of the General Conditions would be deemed to have been studied and agreed to by the Contractors before their signing this agreement.

8.2 This agreement is subject to the special conditions stipulated in our schedule and or Purchase Order No. _____ dt. _____ and subsequent amendments, if any, issued from time to time.

SIGNATURE OF (SELLER)

SIGNATURE OF (FIRM)

WITNESS

WITNESS

1.
2.

1.
2.

DATE:

SEAL:

**SIGNATURE OF TENDERER
SEAL**

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FORMAT FOR TENDERER'S EXCEPTIONS/DEVIATIONS

Bidder shall propose the deviations, exceptions, clarifications, qualifications, assumptions to the bid documents (including the terms & conditions of the Price Part) in the following format. No exceptions, qualifications or deviations whatsoever will be considered unless entered in this Attachment.

Bidder must include one of the following statements.

"Our Bid is in accordance with the data, specifications and other technical & commercial requirements of the Bid, with no exceptions."

OR

"Our Bid is in exact accordance with the data, specifications and other technical & commercial requirements of the Bid, with no exceptions other than those listed below:"

S.No.	Ref of Page no.	Tender Document		Subject	Deviation /Exception/Clarification /Assumption
		Cl. No.	Para no.		
(1)	(2)	(3)	(4)	(5)	(6)

Any clarifications/ deviation/exception appearing elsewhere in the Tenderer's offer shall not be considered and shall not be part of the contract. The consultant can give deviations / exceptions in a separate page, also. The queries/deviations/exceptions as far as possible should be clarified at Pre Bid Stage, itself.

Signature of the Tenderer:

Date:

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ABBREVIATIONS & NOTATION

UNLESS OTHERWISE SPECIFIED FOLLOWING NOTATIONS/ABBREVIATIONS SHALL BE APPLICABLE TO THIS TENDER	
LOA	Letter Of Acceptance
EMD	Earnest Money Deposit
PP-LC	Purchase Preference Linked With Local Content
PPP-2012	Public Procurement Policy - 2012
CAMC	Comprehensive Annual Maintenance Contract
CIF	Cost Insurance Freight
Lanka IOC/ LIOC/ Purchaser/ Owner/ Procuring Company	Lanka IOC PLC
BOQ	Bill Of Quantity (Price Bid)
RA	Reverse Auction
MSME	Micro Small and Medium Enterprise
DU/ Dispenser / Dispensing Pump	Dispensing Unit
MPD	Multi Product Dispensers
Bidder / Tenderer	Bidder
Supplier / Contractor / Vendor	Vendor (Successful Bidder)
SD	Security Deposit
HO	Head Office of Lanka IOC PLC
TPIA	Third Party Inspection Agency
GRN	Goods Receipt Note
CDAC	Centre For Development Of Advance Computing
SAMEER	Society For Applied Microwave Electronics
ERTL	Electronics Regional Testing Laboratory
ARAI	Automobile Research Association Of India
e-CTS	Electronic Complaint Tracking System
RDBMS	Relational Database Management System
PBG	Performance Bank Guarantee
BG	Bank Guarantee
Works	Factory premises of Vendors
CDD	Contractual Date of Delivery
FDS	Functional Design Specifications
Bidders should contact Tender inviting Authority for clarifications pertaining to any other abbreviations / notation used in the tender. LIOC's definition and interpretation shall be final and binding on the bidders.	

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UNDERTAKING BY THE TENDERER(S)

NAME OF WORK:

Tender No. : _____

We confirm that we have quoted the rates in the tender considering Inter-alia the

1. Tender Document(s)
2. Additional Document(s) (if any)
3. Technical Specifications Latest version.
4. BOQ Document (Price Bid Format)
5. Corrigendum (if any)
6. Pre Bid Meeting Minutes (if any)

We _____ (Name of the Tenderer) hereby certify that we have fully read and thoroughly understood the tender requirements and accept all terms and conditions of the tender including all corrigendum/addendum issued, if any. Our offer is in confirmation to all the terms and conditions of the tender including all corrigendum/addendum, if any and minutes of the pre-bid meeting. In the event our offer is found acceptable and contract is awarded to us, the complete tender document shall be considered for constitution of Contract Agreement.

SIGNED FOR AND ON BEHALF OF TENDERER(S)

Name of Tenderer(s)

Date : __/__/____

Place :

Seal & Signature of Tenderer

NOTE: This declaration should be signed by the Tenderer's authorized representative who is signing the Bid and submitted on a non-judicial Stamp Paper.

For Foreign Bidders:

- a. Authorized Local Agent of the foreign bidder is required to submit the above declaration on a non-judicial Stamp Paper.
- b. The Foreign Bidder in their company's letter head should authorize their Local Agent to submit the above declaration.

Original document at the time of submission of bid.

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PARTICULARS OF TENDER FEE

DEMAND DRAFT/ RECEIPT NO:

DATED.....

ON

BANK.....

FOR LKR.5,000/- OR USD 32/- (BY WAY OF DEMAND DRAFT PAYABLE AT COLOMBO).

PARTICULARS OF BID BOND

DEMAND DRAFT/ RECEIPT NO:.....

DATED.....

ON

BANK.....

.

FOR USD. 21,320/- (BY WAY OF DEMAND DRAFT PAYABLE AT COLOMBO).

OR

BANK GUARANTEE NO:

DATED.....

ON

BANK.....

.

FOR USD. 21,320/- BG (AS PER FORMAT ENCLOSED).

The bid bond shall be valid for a period of (4 months) 120 days from the date of opening of technical/ commercial bids.

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CERTIFICATE OF AUTHORISATION BY FOREIGN VENDOR FOR ITS SOLE AUTHORIZED SRI LANKAN AGENT
(On foreign Vendor's Letterhead)

- A. We M/s..... are an Original Equipment manufacturer of Dispensing Units with our Registered office at...(Address of Registered Office). Dispensing Units are manufactured and assembled by us at our factory at
- B. This is to certify that M/s (Authorized Sri Lankan Representative) is our sole Authorized agent in Sri Lanka for Dispensing Units vides agreement No..... Dated..... which came into effect since..... and is valid** up to.....
- C. M/s..... (Authorized Sri Lanka Representative) are authorized to quote for Lank IOC's Dispensing Unit Tender ref: _____ on our behalf.
- D. We M/s..... as the Original Equipment manufacturer of Dispensing Units are responsible for the following in the Tender No. _____
- Supply of all Dispensing Units including the Spare parts.
 - Ensure functioning of the system as per standards detailed in the tender.
 - Performance guarantee for the complete system.
- E. Our said authorized Sri Lankan agent M/s are competent to carry out the following services pertaining to Dispensing Units:
- Supervision of Installation and commissioning
 - Trouble shooting
 - Routine maintenance and repairs
 - Training of customer's operators / Engineers
- F. We M/s..... (Foreign Vendor) stand guarantee for all the Dispensing Units and spare parts supplied through M/s (Authorized Sri Lankan Representative) and undertake to extend all the technical support to them throughout the agreement period.
- G. We M/s. (Foreign Vendor) shall take the responsibility for the performance of our said authorized Sri Lankan agent. In case of failure of this agent or in the event of termination them by us, we undertake to provide the continuity in service through an alternate agency at the same terms and conditions finalized by IOC with the original agent.

**The agreement shall remain valid at least for a period of Ten years post commissioning of the entire lot of Dispensing Units covered in the work order on the sole authorized Sri Lankan agent.

Signature of authorized signatory of the foreign vendor

Name:

Designation:

Place:

Date:

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CERTIFICATE OF CONFIRMATION BY AUTHORIZED LOCAL AGENT OF FOREIGN VENDOR
(On local agent's Letterhead)

1. We M/s..... (Authorized Sri Lankan agent) confirm that we are the sole Authorized Sri Lankan Agent for M/s..... (Foreign Vendor) for Dispensing Units.
2. We M/s (Authorized Sri Lankan agent) also confirm that we are not the agent of supplier or manufacturer of Dispensing Units of any other vendor.

Signature of authorized signatory of the sole Authorized Sri Lankan Agent

Name:

Designation:

Place:

Date:

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FORM OF TENDER
(To be filled up by the Tenderer)

From

Date:

To

Tender No.:

Dear Sirs,

Having examined the Tender Documents consisting of the Notice Inviting tender, Statement of Credentials, Instructions to Tenderers - Particular conditions of contract, Special Terms and conditions, General Conditions of Contract, Specifications, Time Schedule, Form of Contract, Price Bid, and Addendum, if any, to the Tender Documents, and having understood the provisions of the said Tender Documents and having thoroughly studied the requirements of Lanka IOC PLC. relative to the work tendered of Lanka IOC PLC and having conducted a thorough study of the job involved and things whatsoever necessary for or relative to the formulation of the tender or the performance of work, I/we hereby submit my/our tender offer for the performance of proposed work in accordance with the terms and conditions and within the time mentioned in the Tender Documents.

In consideration of the sum of Rupee 1/- (Rupee one) only paid to me/us by Lanka IOC PLC., by adjustment in the price/Bid-bond of Tender Documents, I/We further undertake to keep my/our this tender offer open for a period of not less than 120 days from the scheduled date of opening of Tenders as specified in the General Instructions to Tenderers forming part of the Tender Documents.

I/We hereby further state that I/We/None of us (in the case of partnership firm) and none of our Directors (in the case of a Company) was/were employed as Directors of Lanka IOC PLC., during the period of 2 (two) years immediately preceding the date hereof OR I/We hereby declare that I/Shri _____ one of our partners (in the case of partnership firm/Directors (in the case of a Company) was employed as a Director in Lanka IOC PLC., during the period of 2 (two) years immediately.

Preceding the date hereof and that I/Shri _____ have/has obtained previous permission of Lanka IOC PLC. to make this tender.

I/We have annexed to this Bid the following documents:

- (i) Schedule of Rates in the prescribed form.
- (ii) Original Power of Attorney or other proof of authority of the person who has signed the Tender OR copy of Power of Attorney attested by a Gazetted Officer or a Notary Public in proof of the authority of the person who has signed the Tender.
- (iii) Information regarding Tenderer in the form annexed to the Form of Tender.
- (iv) Information regarding experience of the Tenderer in the performance of work of a comparable nature in the form annexed to the Form of Tender.

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- (v) Information regarding Organization structure.
- (vi) Set of Tender Documents, as issued duly signed.

(vii) Additional Documents as listed below:

- a.
- b.
- c.

I/We hereby undertake that the statements made herein/information given in the Annexures referred to above are true in all respects and that in the event of any such statement or information being found to be incorrect in any particular, the same may be construed to be a misrepresentation entitling Lanka IOC PLC. to avoid any resultant contract.

I/We further undertake as and when called upon by Lanka IOC PLC to produce, for its inspection, original(s) of the document(s) of which copies have been annexed hereto.

I/We confirm having deposited Bid-Bond Money of USD. _____
 (_____) as detailed hereunder (Strike off whichever is not applicable)

(Signature(s) of the Tenderer(s))

Name & Designation of
 Authorised person
 Signing the Tender on behalf of
 The Tenderer(s)
 Full Name and address of the Tenderer(s)