

MEGHNA PETROLEUM LIMITED

(A subsidiary of Bangladesh Petroleum Corporation) 58-59, Agrabad Commercial Area, Chattogram.

REQUEST FOR EXPRESSION OF INTEREST (EOI)

FOR

SELECTION OF CONSULTING FIRM (NATIONAL)

FOR

DESIGN, DEVELOP, INSTALLATION, TESTING AND COMMISSIONING OF WEB BASED INTEGRATED APPLICATION SOFTWARE FOR MEGHNA PETROLEUM LIMITED

BY METHOD OF QUALITY AND COST BASED SELECTION (QCBS)

EOI REF. NO.	: Pur-096, Date: 05.01.25
ISSUED ON	:
EOI CLOSING & SUBMISSION DATE & TIME	: 15.00 HRD. of 23.01.25

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MEGHNA PETROLEUM LIMITED

(A Subsidiary of Bangladesh Petroleum Corporation) 58-59, Agrabad C/A, Chattogram

REQUEST FOR EXPRESSION OF INTEREST (EOI)

1	Ministry/D				Resources/Energy and Mineral R	Resources Division	
2			Ministry of Power, Energy and Mineral Resources/Energy and Mineral Resources Division Meghna Petroleum Limited (A Subsidiary of Bangladesh Petroleum Corporation)				
3		Entity Name& District	General Manager (C	er (Operations), Chattogram			
4	Title of the	Service	Design, develop, installation, testing and commissioning of web based integrated application software for Meghna Petroleum Limited				
5	Expression of interest for selection of Consulting Firm (N						
5	EOI Ref. No.& Date Pur-096, Date: 05.0			1.2025			
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0		AND REAL PROPERTY AND ADDRESS OF THE PARTY AND	at house at house an arrangement of the same of the sa	me: 15.00 Hrs., Place:	General Manager (Operations),	58-59, Agrabad C/A, Chattogran	
		ON FOR APPLICANT				Daniel Barrier	
	Description of Assignment	(POL) Products. Meghna Petroleum Limited intends to appoint a Consulting Firm for Design, develop, installation, testing and					
The Applicant(s) shall meet the following eligibility criteria and shall furnish documentary evidences in support of eligibility criteria: a) The Consulting firm must have valid BASIS membership certificate. b) The minimum number of years of general experience in software development shall be 05 (five) years beginning from B Membership; years counting backward from the date of publication of EOI in the newspaper. c) The Consulting firm(s) shall have experiences in completion of Customized Business Application Software in any Govt./ Govt./ Autonomous Bodies or Publicly Listed Company(s) in Bangladesh amounting not less than BDT 30.00 Lakh value maximum 2 (two) contacts during the last 10 (ten) years; years counting backward from the date of publication of EOI newspaper. d) Key Technical/Professional consultants (Team Leader, Domain Expert, Business Analyst, System Analyst, Network Administ Software Architect, Database Administrator, Sr. Software Engineer/ Sr. Programmer and System Engineer) must be und payroll of bidder. e) Brochures, description of the software delivery assignments and experience of the services shall be submitted. f) All certificates of experience from the clients shall be in client's letter head pad having address, telephone and e-mail of the cand shall include name of the project, location, description of work, duration of the service and contract amount. g) The firm(s) shall have up-dated Trade license, VAT Registration, Income Tax certificate and legal capacity to perform the service and the service of the servi			tion Software in any Govt./Sem nan BDT 30.00 Lakh value under date of publication of EOI in the Analyst, Network Administrato tem Engineer) must be under the se submitted. elephone and e-mail of the client outract amount.				
		Limited; 58-59, Agral be downloaded from t c) The EOI shall be subn d) The EOI shall be subn e) Interested applicants n with foreign firm is En	rvices will be available to C/A, Ctg. & ii) L he website of MPL (ynitted in 2 sets (One onitted in sealed envelopment)	ble in the TOR white iaison Office, Meghr www.mpl.gov.bd) after original & one copy) of ope and clearly market	PR 2008". th can be collected from i) Pure to a Petroleum Limited, 131-133 N or the date of publishing of EOI in or before the specified date, tind with name of the assignment to dersigned during the office hours.	Actijheel C/A, Dhaka and can als in the newspaper. The and place. To the office of the inviting official	
A)	Ref.	D INFORMATION:		Landon	Lating and the Paris		
5	S1 Desi	Phasing Service gn, develop, installatio		Location Head Office,	Indicative Start Date	Indicative Completion Date	
2	comu	nissioning of web based int vare for Meghna Petroleum	egrated application	58-59, Agrabad C/A, Chattogram	Within 7 (seven) days from the effective date of Contract.	Within 1 (one) year from the effective date of Contract.	
-	OCURING	ENTITY DETAILS					
6	of Official	ignation, Address and Contr Inviting EOI	Agrabac	Commercial Area, P	nl Manager (Operations), Meghna from No: 023333-11484, e-mail:	mafizmol@smail.com	
7 Not	The Procu	ring Entity reserves the ri	ght to accept or reje the date of schedu	et any or all EOI(s)	without showing any reason the oidable circumstances, the san	ereof.	



TERMS OF REFERENCE (TOR)

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1. INTRODUCTION:

Meghna Petroleum Limited (MPL), subsidiary of Bangladesh Petroleum Corporation (BPC) under the administrative control of Energy and Mineral Resources Division. It is one of the largest oil marketing company of Bangladesh. Meghna Petroleum Limited is engaged in marketing of Petroleum Oil & Lubricating (POL) Products. The marketing activities are conducted through Head office, Agrabad, Chattogram, 4(four) Regional Offices situated at 1. Chattogram Regional Office, Agrabad, Chattogram 2. Dhaka Regional Office, Motijheel Dhaka 3. Khulna Regional Office, Daulatpur, Khulna 4. Bogra Regional Office, Bogra, 2(two) Installations 1. Main Installation, Potenga, Chattogram 2. Mongla oil Installation, Bagerhat and country wide 18(Eighteen) depots located at 1. Godnail Depot, Narayangonj 2. Fatullah Depot, Narayangonj 3. Daulatpur Depot, Khulna 4. Baghabari Depot, Sirajganj 5. Chandpur Depot 6. EPOL Depot, Banani, Dhaka 7. Barisal Depot 8. Jhalkathi Depot 9. Sreemongol Depot, Moulvibazar 10. Moghla Bazar Depot, Sylhet 11. Rangpur Depot 12. Parbotipur Depot, Dinajpur 13. Bhairab bazar Depot, Kishoreganj 14. Natore Depot 15. Horian Depot, Rajshahi 16. Chilmary Barge, Kurigram, 17. Comilla Depot, Comilla and 18. Aligonj Depot, Narayangonj. Details of our functioning may be found at www.mpl.gov.bd.

2. PURPOSE OF SERVICES:

Meghna Petroleum Limited is looking for an eligible Consulting Firm to Design, Develop, Installation, Testing and Commissioning the web-based integrated Application Software for Meghna Petroleum Limited. The web-based integrated Application Software includes Accounts & Finance Module and System Administrative Module.

3. OBJECTIVES:

- a) The successful Consulting firm have to design, develop, install and implement the web-based integrated Application Software for Meghna Petroleum Limited including rendering all services for database design, data driven Application development, data optimization, formulate the chart of accounts (customer, product, supply point, Region, Depot code etc.) and implement the web-based integrated Application for Head Office, Dhaka Liaison Office, Main Installation, Mongla Oil Installation, Eighteen Depots and Four Regional Offices of MPL.
- b) Application must be completely web-based.
- c) Application must be integrated with Existing VAT Software of MPL
- d) Transfer of knowledge and provide with sufficient training to the IT team, System User and End Users etc. as required by MPL..

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4. ELIGIBILITY CRITERIA:

- a) The Consulting firm must have valid BASIS membership certificate.
- b) The minimum number of years of general experience in software development shall be 05 (five) years beginning from BASIS Membership; years counting backward from the date of publication of EOI in the newspaper.
- c) The Consulting firm(s) shall have experiences in completion of Customized Business Application Software in any Govt./Semi-Govt./Autonomous Bodies or Publicly Listed Company(s) in Bangladesh amounting not less than BDT 30.00 Lakh value under maximum 2 (two) contacts during the last 10 (ten) years; years counting backward from the date of publication of EOI in the newspaper.
- d) Key Technical/Professional consultants (Team Leader, Domain Expert, Business Analyst, System Analyst, Network Administrator, Software Architect, Database Administrator, Sr. Software Engineer/ Sr. Programmer and System Engineer) must be under the payroll of bidder.
- e) Brochures, description of the software delivery assignments and experience of the services shall be submitted.
- f) All certificates of experience from the clients shall be in client's letter head pad having address, telephone and e-mail of the clients and shall include name of the project, location, description of work, duration of the service and contract amount.
- g) The firm(s) shall have up-dated Trade license, VAT Registration, Income Tax certificate and legal capacity to perform the services.
- h) The Firm must be certified by International Quality Standards in relevant fields and must have Certification of Compliance for CMMI MATURITY LEVEL 3 or higher.
- i) The firm(s) shall submit Audit Report for last 03 (three) years.
- j) The firm(s) shall submit a Bank Solvency Certificate.
- k) Others are as per TOR.

5. SCOPE OF SERVICES:

- 5.1 The successful Consulting firm have to Design, Develop, Installation, Testing and Commissioning of the web-based integrated Application Software for Meghna Petroleum Limited of the following modules and integration with existing VAT Management Software:
 - 1) Accounts & Finance Module (fifteen sub module)
 - System Administration Module.

5.2 The module wise functionalities are mention below:

Typical functionalities required for the above modules are listed below in order to understand the volume of work but mentioned list is **Indicative & not exhaustive**. The Consultant will further analyze the above modules during the System Requirement Specifications (SRS) period to understand the new requirements as well as the objective of the project and provide a comprehensive solution.

5.2.1 Development and Implementation of Accounts & Finance Module:

a) TAR (Trade Account Receivable)

- Invoice Entry SA-01 for Credit Sales
- · Invoice Entry SA-02 for each sales

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- · Verification with Bank statement
- · Region wise sales
- · Location wise sales
- · Customer wise sales
- Sales summary
- Customer Ledger
- · Proof Sheet
- · CR entry
- · RM Copy Ledger
- · Bank Ledger
- · DS/PIS status
- · Offsetting
- · Carrier's services
- Closing Balance
- · MMSC (TL) Statement
- Prepare of CA-29 for cash Received (for payment verification only)
- Prepare RE-23 Customer Ledger (Customer's daily transaction statement)
- Prepare JV-26 for Cash receipts & amounts deposited on central accounts
- · Prepare JV-27 for collection of various depot related bank
- Prepare JV-59 for Customer wise debit and credit balance
- Prepare JV-08 for Adjustment voucher for customer's TAR
- · Summary of Control Sheet
- TAR Report
- · Monthly AIT Summary
- · Others Report On Demand

b) O&B (Order & Billing)

- · Product Category
- · Product Details
- · Daily product wise sales Register
- · Depot wise Sales Report
- · Product Wise Sales Report
- · Location and party wise VAT statement
- Various Statements
- · Prepare JV-01 for Credit notes issued
- Prepare JV-02 for Debit notes issued
- Prepare JV-20 for
- -- Sales Record (Including Bunker Sales)
- Credit SSLF, DSC freight, MT, Packages, transshipment, Delivery expenses, Control Recoveries etc.
- -- Debit commission allowed to customer's
- · Prepare freight pool
- · Broker Sales Report
- · PDB Sales Report in Details
- · Depot wise product Transshipment Report
- Packaging Cost Recovery Report
- · Freight Recovery Report
- Credit Notes
- · Others reports on demand

c) Cash Section

· Cash Receive Category

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- Cash Receive (Cash Receipt for SA-01 and cash receipt from internal & external source)
- · Deposit slip against DD/PO/Cash
- · Petty Cash
- · Cash Payment against Voucher
- · CR Entry
- · CR Listing against MI
- · Bank advice
- · Reports on demand

d) Account Payable

- · Bill Type Details/Category of Bills including agreement expiring date
- Prepare VWC Posting (voucher without Check) Voucher 25
- · Prepare Cheque, Cheque voucher
- · Disburse Payment by Check
- · Daily Check list
- · Create Third party Ledger
- TAX collection & Deposit (Outside) (Statement summary & journal)
- VAT collection & Deposit (Outside) (Statement summary & journal)
- · Category of TAX Certificates
- Category wise Prepare VAT & TAX certificates to customer
- · Partial Payment details
- · Advance Register Maintain
- Preparation of JV-04 for Expense statement against special cash advances
- · Preparation of JV-05 for Clear approved travel expense statement
- Preparation of JV-40 (Income TAX, VAT & other miscellaneous adjustment)
- Preparation of JV-51 for accrue unpaid cartage bills (Transport contractors, Railways, other handling contractor)
- · Preparation of JV-53 to accrue charges of
 - --- Head Office expense
 - --- Charges against fixed charges records
 - ---Services rendered by other/Material received for which bills are available
 - ---Services rendered by other/Material received for which bills are not available
- · Cheque
- · Book control
- · Preparation of loose journal
- · Document Receive & allocation to employee register.
- · Other Reports on Demand

e) Banking

- · Bank Details
- · Bank Branch Details
- Pay-in-Slip Details (PIS)
- Dummy Deposit slip for PIS
- · DS information entry system
- · Bank Invoice Entry
- · Cross Check with Bank Statement
- · Reconciliation Report
- Bank Interest Receive & source Tax Deduction
- · VWC (Bank charge) & Others
- LC Payment
- Salary Payment
- · Railway Credit note

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- · VWC (Bank charge) & Others
- · Bank to Bank Transfer
- · Cash Receipt
- Dishonor Cheque (CA-25)
- · PIS Control
- · Bank wise fund statement daily basis
- · Bank Branch wise PIS status report- Bank code and branch code
- · LC Control and Insurance Premium Control
- · BPC Payment Details
- · Others Report on Demand

f) Budget & Marketing

- Prepare Propose Budget
- · Prepare Revise Budget
- Prepare JV-54 for Marketing Expenses entry
- · Prepare JV-25 for Others Expenses entry
- · Voucher verification
- · Marketing Expenses segregation
- · Collect sales volume
- Propose Sales income & Revise Sales Income
- · Preparation of SABARE format to finance ministry
- · TAX statement against Expenses
- · Preparation of Budget Entry Register
- · Preparation of Propose & Revise Budget
- · Preparation of expense statement for budget actual variance
- · Others reports on demand

g) Stock

- · Create Location
- · Create Item/Product name with code
- · Location Wise Item Details in PSL
- Consolidating IN 43 and Transfer Receive Statement for preparation of Trip Report
- · Freight Rate Input and Update Option
- Tanker Data Input
- Location to location transfer (IN 43 & IN 44)
- Correction Stock Batch with DBPSR and statement of transshipment cost
- · Product Balance sheet Preparation
- Depot Wise Operation, Conversion and Transit Loss/Gain Statement and Summary
- · Own Use Statement and Prepare JV-12 for Product own use
- · Data Posting for Tanker Bill
- · Purchase Posting:
- Import (Refined and Lubricant)
- ERL
- Gas Field and Private Fractionation Plant
- Local Blending
- Other Local Purchase
- C&F, Insurance, Other Service
- Prepare ELBL & SAOCL Statement, Bitumen Statement
- · Prepare JV-13 to record re-brandings a product group
- Prepare JV-14 for all type of product purchase
- Prepare JV-16 to determine Operation and Transit Los/Gain operation

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- Prepare JV-56 for closing stock valuation
- · Prepare JV-91 for opening stock valuation
- · Prepare Debit Notes and Summary Statement, Party Wise, Month Wise.
- · Transshipment statement for Freight pool claim
- · Prepare Contraction statement & BIWTA levy
- · Depot wise stock report
- · Monthly Tanker Report
- JV-55(Transshipment Statement)
- · Others report on demand

h) Payroll System

- · Grade wise Pay scale
- · Salary Ledger (Element wise)
- · Employee wise salary Details
- Employee attendance
- · Arrear Salary (Agreement/ Promotional/Special Increment)
- · Monthly Salary Process (Employee Wise)
- · Monthly Salary Posting
- · Monthly Utility Process (others Allowance)
- · Monthly Utility posting (others Allowance)
- · Income TAX Calculation (Employee)
- · Yearly Bonus process
- ·Festival bonus process
- Incentive bonus process
- · Final Settlement Process
- · Good Health & Good Attendance Allowance
- · Stop Salary
- · Pay slip
- · Account summary
- · Details Salary
- · Bank advice Note
- · Overtime Calculation
- · EDA Calculation
- Prepare JV-18 to close out to accounts affected total payroll costs
- · Prepare JV-19 for sundry adjustments payroll accounts
- · Prepare JV-60 for Bonus payable to staff
- · Salary Study Sheet
- Salary Study Sheet (Yearly, Promotional, SPL, Increment & Agreement)
- · List of Man Power
- Car Mileage (Process & Posting)
- · Proof Sheet
- · Employee Leave Card
- Employee Record Card Appointment / Joining / Transfer / Promotion Etc.
- · LPA / LFA Ledger Posting
- · Leave Encashment
- CA-03 Prepared After Salary Process
- · Yearly Gratuity Calculation
- · Other Reports on demand

i) Loan & Advance

- Type of loan (House Building/Motor Cycle/Car Loan etc.).
- Loan Disbursement
- · Employee wise Loan entry and monthly installment information.
- · Early settlement

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- · Stop loan facility.
- · Loan, Paid, Due summary statement.
- · Reports on demand

j) Tax, VAT& Insurance

- · Company Profit TAX Calculation
- · Company TAX Return Preparation
- · VAT Calculation with Product Price
- · Insurance Payment Details
- · Processing Insurance Register
- · VAT Current Account
- · Reports on Demand

k) Provident Fund System

- · Provident Fund Member Joining
- · Provident Fund Loan Type
- · Employee Provident Fund Loan
- · Provident Fund Chart of Account
- · Provident Fund Final settlement
- · Provident Fund Investment Details
- · Provident Fund Payment & Receive
- · Profit Distribution
- · Bank Reconciliation
- · Profit & Loss Statement
- · Trail Balance
- · Balance Sheet
- · Creditors Ledger
- · Employee Loan Collection
- * Member wise Collection (Own & Company)
- Member Ledger Details
- · Provident Fund Journal Entry
- · Internal Calculation of Income statement (SP)
- · Others reports on demand

I) Gratuity Fund System

- · Employee Gratuity Fund Related Information
- · Gratuity Fund Calculation sheet
- · Gratuity Fund memo
- · Other Reports on demand

m) WPF & WWF System

- · Worker Welfare Fund Joining
- WWF Loan
- · WWF Ledger Information
- · WWF Voucher
- · WWF member List
- · WWF Investment, Profit
- · Prepare Journal
- · Member wise Loan Collection
- · Member wise Loan Details
- · Fund Transfer, Fund Statement
- · Bank Reconciliation
- WWF/WPF Payment Sheet, Summary Sheet

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- · WWF Chart of Account, Ledger
- Trial Balance
- Members Reconciliation
- Retirement List Current Year
- Retirement List Last Year
- · Newly Appointed List (if any)
- · List of Allocation (WPF)
- List of Allocation (WWF)
- Total Disbursement for the Fund
- · Bank Payment Sheet for Payroll
- · List of Investment A/C
- · Disbursement Sheet for Auditors
- · Location wise Payment Sheet of WWF
- · Other Reports on demand

n) Office Service

- · Item Category
- · Item List
- · Suppliers Details list
- · Supplier Bill Register
- · Bill Process
- · Purchase Requisition
- · Purchase Order Receive
- . Item Requisition for Use(GE-25)
- · Item Issue against requisition
- · Stock position
- · Department & Employee wise issue
- · Other Reports on Demand

o) General Ledger

- · General Ledger
- · Subsidiary ledger
- · Chart of Accounts
- · Journal Entry
- · Transaction Report
- Trail Balance
- · Income Statement
- Cash Flow Statement & Cash Flow reconciliation
- Profit & Loss Account/ Comprehensive Income
- · Balance Sheet/Financial Position
- Ratio Analysis
- · Subsidiary ledger wise details of accounts
- · Account Reconciliation Statement/product reconciliation statement
- · Customer wise Receivable
- · Customer wise payable
- · Notes to the Accounts
- Schedule Report as per requirement of Management /BSEC /DSE /CSE /BPC etc.
- · Fixed asset subsidiary ledger & prepare of summary sheet
- · Depreciation Calculation- Plant & Location wise
- · Summaries position of operating fixed assets
- Preparation of Debits Notes & Credit Notes
- Preparation of proof sheet & offset system as per debit note/credit Note/IN-89
- · Monthly/ quarterly/yearly reporting as per management requirement
- · Graphical Report (Comparative with Last year/Last five year)
- Ledger / Subsidiary Ledger Offset / Transaction Offset Procedure
- Product Reconciliation / Gross Margins Analysis
- Code Add or Less Procedure
- Other related works/preparation of statement as per requirement of the management



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5.2.2 Development & Implementation of System Administration Module

This module must be used to ensure security of the Application. This module must be maintained by system administrator to control user access to the Application. Through this module SA should create users, assign passwords and limits user access to the Application.

- · Over all control of the Solution
- User creation
- Every user must be assigned username and password.
- Application user should not get direct access to the database with the login information they used to access Application.
- · Set password expiries & Privileges
- · Granting Access Right.
- Access control mechanism for user's on forms, report, and other Application objects must be there. System administrator full flexibility to control access right.
- User can be divided into different user group.
- Six access privilege will be controlled through this Application namely: View, Modify, Add, Delete, Print and Deny.
- Above six mention privileges can assign on a group and on a user.
- Administrator should have flexibility to decide which objects, screens or reports will be monitor by the system for audit trail purpose.
- · Other's on demand
- 5.3 All the modules/sub-modules must be properly integrated with each other. The Application Software is to be used at Head office, Agrabad, Chattogram, 4(four) Regional Offices situated at 1. Chattogram Regional Office, Agrabad, Chattogram 2. Dhaka Regional Office, Motijheel Dhaka 3. Khulna Regional Office, Daulatpur, Khulna 4. Bogra Regional Office, Bogra, 2(two) Installations 1. Main Installation, Potenga, Chattogram 2. Mongla oil Installation, Bagerhat and country wide 18 (Eighteen) depots located at 1. Godnail Depot, Narayangonj 2. Fatullah Depot, Narayangonj 3. Daulatpur Depot, Khulna 4. Baghabari Depot, Sirajganj 5. Chandpur Depot 6. EPOL Depot, Banani, Dhaka 7. Barishal Depot 8. Jhalkathi Depot 9. Sreemongol Depot, Moulvibazar 10. Mogla Bazar Depot, Sylhet 11. Rangpur Depot 12. Parbotipur Depot, Dinajpur 13. Bhairab bazar Depot, Kishoreganj 14. Natore Depot 15. Harian Depot, Rajshahi 16. Chilmary Barge, Kurigram 17. Comilla Depots, Comilla 18. Aligonj Depot, Narayongonj of MPL and information to be updated in the central database.
- 5.4 The consultant has to provide assurance certificate for smooth running of the Application Software for unlimited period.
- 5.5 The required data and information will have to be identified during the requirement analysis process through review of report and interviews of the relevant department and the employees. In database development all the normalization rules and business rules (constraints) will have to be followed. Validation rules have to be implemented at record level and field level for managing the data entry errors.
- 5.6 Warranty for Application Software (Instant & On-Site)
- 5.6.1 The consultant must provide full warranty for 1 (one) year from the date of final acceptance of the Application Software.
- 5.6.2 The consultant has to provide necessary support for smooth running of the Application Software during the warranty period.

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- 5.6.3 The consultant shall be fully responsible for regular maintenance of the Application Software during the warranty period and the consultant has to rectify all defects, bugs, break-down, malfunctioning etc. of the Application software at their own cost. The consultant has to provide a Warranty Certificate in this regard.
- 5.6.4 Any modification/alteration of the Application Software or inclusion of addition function (within developed module) must be done by the consultant without charging any additional fees during the warranty period.
- 5.7 After completion of warranty period, MPL authority may call the consultant for Annual Maintenance Contact (AMC) for 1(one) year which may be renew upon mutual agreement. The consultant shall be fully responsible for regular maintenance of the Application Software during the AMC period and the consultant has to rectify all defects, bugs, break-down, mal-functioning etc. of the Application software at their own cost. The consultant has to mention the AMC rate and will be evaluated as a part of financial offer.

5.8 Application Software Requirements:

The consultant has to analysis, design, development, installation, testing and training of the Application Software for computerization to be done at various levels as per the business process and fulfilling following requirements.

- 5.8.1 The consultant must follow the guidelines and compliances of Government of Bangladesh Information Security Manual and "গুরুষপূর্ণ তথা পরিকাঠামোর ডিজিটাল নিরাপত্তা সুরক্ষা গাইডলাইন ২০২২".
- 5.8.2 It must have a common, consistent database system such that the information shall be accessible from all locations of MPL according to authorization setup by Head Office administration.
- 5.8.3 It must be possible to perform back date transaction by users authenticated by administrator.
- 5.8.4 The system must be open to allow interoperability with general purpose software and have the facility to export/import data files from other Applications.
- 5.8.5 The system must be fully web enabled to work in the Internet and Intranet environment.
- 5.8.6 The development of the Application Software may be at client or consultant site but customization, debugging, testing, modification and other's part of the Application Software must be performed at client site.

5.8.7 Task tracking system

In the task tracking system, user will be able to create task, forward it to other user who in turn will be able to append information/notes, add pointers to files and forward to another user. It shall be possible to review tasks based on creator, location, subject etc.

5.8.8 Software Modification:

The employer keeps the right to ask to modify the software (addition, deletion or upgradation) in any function, feature or task that are currently performed by section or department but not included or missing in System Requirement Specifications (SRS) period. The consultant shall comply with the demand free of cost.

5.8.9 Dynamic Solution:

The Application software must be dynamic. The various parameters (i.e. depot code, product code, customer code etc.) of the Application solution must be dynamic so that any addition/modification could be done without changing the structure of the solution.

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5.8.10 Localization

The system should have adequate localization to handle specific requirement of Regulatory Bangladeshi Laws, TAX and Duty legislation and other regulations.

5.8.11 Data entry: Following points shall be considered for data entry

- a). It must be possible to do on line multi-user data entry and its printing in prescribed format at the point of transaction activity within the domain of various Depots.
- b). The interface must be user friendly and with Graphical User Interface (GUI).
- c). Data entry system should be support input from QR Code/Barcode.
- d). Application Control tools must be user friendly (e.g. Using ComboBox instead of dropdown List)
- e). System should validate data during data entry as per data validation procedure prescribed in Functional Requirement Specifications (FRS).
- f). The system should provide case sensitive on line help during data entry for invalid data, error indication and guide the user for necessary action.
- g). Data entry modules shall be designed in order to achieve highest data entry efficiency
- h). The system should provide drill down facility to next level of details and so on.
- The system must be based on single Unified data model and capable of capturing data, already entered into the computer so as to ensure integrity of data.
- Although it's a web based Application, at user level data entry give the taste of windows Application.

5.8.12 Audit

The system must be able to define audit trails, audit logs and transaction log-in requirements. It should enable audit trails on-line, tailor audit requirements by modules, call audit records to an archive based data or other recorded audit details.

5.8.13 Online Help facility:

The system has to provide context-based help facilities at functions, screen and field level that can be tailored to suit MPL's requirement

5.8.14 Scalable

The system must be scalable to handle up to three times the number of users and volume of data load.

5.8.15 Performance Standard:

The System should ensure that functions and its integrations are according to the definition as per scope of work and shall have 100% uptime efficiency at all location.

- 5.9 Decision support system & MIS report generation.
- 5.9.1 The system will have graphical report generation (i.e. various type of chart like bar chart, pie chart etc.) and analysis with multitasking Capability.
- 5.9.2 System will be able to display, print or copy in various file formats (like .xlsx, .doc, .pdf etc.), standard MIS reports full or partial as included in the FRS.
- 5.9.3. The system must be able to provide reports of monthly, quarterly, half yearly, for a period or as being maintained by the respective section.
- 5.9.4 A facility must be available in the software to search information at entire database.



5.10 Following security shall be provided.

5.10.1 Database Related Security:

- Data access: It shall be possible to define hierarchy in administrators where by higher level administrator shall be able to define of lower level administrator.
- Data Archival: The system must be able to archive data based on user specified parameters (i.e.
 data range) and restore archival data when required.
- Security of data: Data backup and restoration shall be possible on latest data storage devices like CD/DVD/external HDD/Pen Drive/Tap library etc.
- Virus protection: Various methods shall be incorporated to protect the system from virus entry like firewall at WAN interface, diskless workstations, and non-standard formatting method for data transfer through media etc.
- Activity monitoring: Facility must be provided to monitor activities by logging information like login time and usage time, logging security modification activity, data modification activity etc.

5.10.2 In the proposed software solution the following security threat must be taken into consideration:

- System Level Security: it will be programmed within the Application itself in order to
 implement a user group. To eliminate the security threats authentication and authorization
 have to be built into the security design of the Application with password control that will
 limit the user to retrieve any information, use module or generate report.
- Server/Machine Security: It means the physical limitation to access a machine and generally would require and additional login in order to gain access.
- User Group-level Security: Since the system is a web-based Application where users are managed by separate managements at different locations, a multi-layered user right policy needed to be applied.
- File/Database Security: unauthorized user activity at the database resources.

5.11 Deliverables:-

Following software and documents which here in after called as deliverables on e-media as well as printed documents.

5.11.1 Inception Report

The consultant has to provide the Inception Report which includes a details work plan & methodology, timeline of the project, key deliverables and milestones etc.

5.11.2 Customization System Requirement Specifications (SRS).

The consultant has to provide SRS which include details about objectives of the project, various system constraints to be considered, system architecture, sub-system specifications, system modeling details etc. duly approved by the concern Department/Division of MPL.

5.11.3 Customization Functional Requirement Specifications (FRS).

The consultant has to provide FRS which include system objectives, all functional requirements, data objects and data structures, file and database structures and their cross references, data and control flow details, program structure, man-machine interface specifications and rules, interface to external data, system and devices, procedural design details, testing methodology etc.

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5.11.4 Data dictionary, Data flow diagram or Entity Relation Diagram:

The consultant has to provide dictionary of all data objects, their inter-relation, data flow diagram or Database ERD be in tune with SRS and FRS at the end of every module.

5.11.5 Software Description Document:

The consultant has to provide the detail of various elements of the software source code, procedures and their cross relations and placements. It should also include complete list of source files, libraries, other parties APIs, object files and executable files.

5.11.6 Software Source Code:

The consultant has to provide the module wise tested Source Code along with directives and meaningful comments, notes to help for future expansion modification, up-gradation etc. after delivery of each module and complete tested source code after successfully completion of the web-based integrated Application Software to MPL with proper documentation. In case of ready-made software or hybrid software, then ready-made software license must be in favor of Meghna Petroleum Limited and customized software Source Code must be provided by the consultant.

5.11.7 Test Report:

The consultant has to perform various test mentioned in clause: 5.11 test to determine whether it meets all the requirements mandated for operational acceptance provide the test reports.

5.11.8 User manual:

The consultant has to provide the operational procedure for users at various levels. The document must be useful as a book for learning the operations as well as a reference book and multimedia content (user's and operational manual) during day to day operations. It should also include explanation about various error messages and way outs.

5.11.9 Training Manual and Training Reports:

The consultant has to provide the training manual and training reports.

5.11.10 Complied executables.

The consultant has to provide the software data shall be a set of complied executables with easy user friendly installation procedure in the form of e-media (like CDs, DVDs) etc.

5.11.11 Support during Warranty Period:

The consultant has to provide the details plan about the support during the warranty period.

5.11.12 Summary of List of deliverable

Sl.No.	Deliverable/ Report (Scope of report)	No. of Copies/ Format of Report	Remarks	
1	Inception Report	1(one) original and 1(one) copy (Hard copy); Soft copy in PEN Drive		
2	Signed System Requirement Specifications (SRS)	I(one) original and I(one) copy (Hard copy); Soft copy in PEN Drive		
3	Reports on Functional software with outputs	1(one) original and 1(one) copy (Hard copy); Soft copy in PEN Drive		
4	Reports on Data dictionary, Data flow diagram or Entity Relation	1(one) original and 1(one) copy (Hard		

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5	Report on Software description document	I(one) original and I(one) copy (Hard copy); Soft copy in PEN Drive
6	Software source code of the local Development	2(two) original and 2(two) copy (Soft copy in PEN Drive. 4(four) original and 4(four) copy (Soft copy in PEN Drive for full APPLICATION software.
7	Test Report	1(one) original and 1(one) copy (Hard copy); Soft copy in a PEN Drive.
8	User Manual	1(one) original and 1(one) copy (Hard copy); Soft copy in a PEN Drive.
9	Training Manual and Training Reports.	1(one) original and 1(one) copy (Hard copy); Soft copy in a PEN Drive.
10	Complied executables.	2(two) original and 2(two) copy (Soft copy in PEN Drive for each module. 4(four) original and 4(four) copy (Soft copy in PEN Drive for full
11	Software License	l(one) original and l(one) copy (Hard copy); Soft copy in PEN Drive.
12	Report on Providing Support	l(one) original and l(one) copy (Hard copy);
13	Draft Final Report	1(one) original and 1(one) copy (Hard copy);
14	Final Report	l(one) original and l(one) copy (Hard copy);

5.12.13 Substitution & Wrong Supplies

Unauthorized/Pirated substitution or materials delivered in error of wrong description or quality or supplied in excess quantity or old versions shall be returned to the successful bidder at his own cost and risk.

5.13 Integrated System Acceptance Testing

The Consultant has to perform the following tests on the integrated system to determine whether it meets all the requirements mandated for operational acceptance. Successful completion of the contract will be gauged through a series of formal system acceptance tests but not limited to the following tests and sub categories performed on all aspects of the system as mentioned below.

- Database Test to verify complete and correct installation of database management system and data integrity testing.
- Data sampling database back-up & recovery testing, query testing, database connection test.
- Unit Testing each module or component should be fully tested independently before integration.
- System Test to verify functionality and performance with respect to the requirements of the system covering defect test, house-keeping functions like archiving, easy to use GUIs, Server, Storage system shutdown and power up test, roll-back, system backup and restoration test.

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- System Integration Test covering integration of Testing Component Integration, testing System Interfaces, parameter interfaces, procedure interfaces, message passing, validations, robustness, availability, Error Detection & Recovery Testing, measuring response time, throughput.
- · Security Testing authentication, authorization, time-out, penetration testing, security
- Stress, reliability and performance, consistency, recovery, volume and limit tests.
- Audit Trail tracking critical transactions, logging all critical errors.
- Storage testing Testing to detect instances when the system exceed the specified limits
- · Graphical User Interface (GUI) Test covering menus, message boxes, keyboard interface, cursor management, visual design.

5.14 Mandate Constraints

- · Should run in LAN and WAN environment;
- Should support both Bangla (Unicode) & English;
- Integration with database must be smooth and seamless;
- Total System must be secured and free from risk & damage.

5.15 Integration Requirements:

As Government system or Digital Service Application, integration with the required and other prescribed national system is very important and essential. The developed APPLICATION System shall have functionality to exchange data with other system of MPL. The system shall have functionality to export/import files based on the standard template defined through web services and/or APL

The possible integration scopes (but not limited to) of this Digital Service Application are mentioned below as reference for the bidder.

Purpose	Organization with	
ervice related nformation's.	a2i	
nline Payment ated information	Commercial Banks	
iternal Process	Own	
ternal Process	Own	
ternal Process	Own	
ternal Process	BPC and MPL	
ternal Process	BPC and MPL	

5.16. Hosting Requirements:

The system will be hosted on the vendor's premises during the development and testing period. Once the system is ready to go live and upon acceptance of the solution by the client, it should be hosted on MPL premises or in cloud at national data center. The consulting firm shall suggest the

hosting requirement and provide all types of all logistical support and consultation for the Application's smooth migration including correspondence and coordination with related service providers at no additional cost.

5.17. Technology for Application Software:

a) Programming Language

: C#

b) Database

: MS-SQL Server-2022

5.18 Training and Knowledge Transfer:

The selected vendor will have to provide three types of training as discussed below:

i) Software & Hardware Solution Training

This will include training for technical team who will take the full responsibility of the integrated Application solution, maintain the software & hardware solution and provide prompt support to the users. These technical teams are from the IT department of MPL. The training will be at Head Office of MPL.

This Training includes:

- Software architecture
- Database of the developed Application solution
- · Configure and maintenance of Server Operating System
- Configure and Maintenance of Application server, Database server, Backup Server, Domain server.
- · Configuring, Troubleshooting & Maintaining Routing, switching & security.
- Identifying software and hardware problem and fixing.
- Administrative Operation (Database Administration, Software administration)
- Concept of the Application software, its operation & functionalities.

The consultant must be deploy 4 (Four) administrative level employee to perform the following training. The specifications of the trainer are:

- a) A senior level Software Engineer/Programmer who has the complete development knowledge regarding this integrated software solution.
- b) A Database Administrator having at least 03(three) year experience and clear concept on the total database on this solution.
- c) A System Engineer having at least 03 (three) years of experience on configuration and maintenance various type of server on different Server OS.
- d) A Network Administrator is having at least 03 (three) years of experience of designing and maintaining large network.

Training Duration: 240 hour's

Training schedule: The consultant will provide training schedule and plan in Tender Document.

ii) Train of Trainer (ToT) Training:

This will include training of about 20 officials for ToT training. The training will be at Chattogram in one batch for at least 5 working days. The ToT training will be hands-on training on all aspects of the Application Software while training would cover on depth concept of the software system and its scope & benefits, introduction to software/database/web Applications/security concepts, demonstration on operation of the system i.e. full functionalities of the Application Software. The objective of this training methodology is to build a well effective and organize Train of Trainer (ToT) group. This

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group will capable enough to train the end users of the project. User manual have to be provided to all participants by the firm.

iii) End User training:

This group will consist of people who will make and keep the system running using their skill and labor every day. Generally the Staff and Officers of MPL including Head Office, Regional Offices, Depots and Stakeholders are included in this group. The training will be at Head Office, 4(four) Regional Offices, Main Installation, Mongla Oil Installation and 18(eighteen) Depots of MPL.

Training Areas:

- · Presentation on overall concept of the software system and its scope and benefits:
- · Specific Section or sub-module wise training
- · Demonstration on operation of the proposed software system;
- · Hands on training on how to use the part of the software they require.
- Operating System, MS office, Internet Browsing etc.

Trainees:

All employees working in the various section of Accounts & Finance Module, Operations Module and Marketing module.

Duration of Training: 8 (Eight) hours per batch.

- 5.19 After successfully completion of the entire job, MPL may call the consultant for further development of the following modules which will be integrate with existing software:
 - i) Marketing Module
 - ii) Management Dashboard

6. TIME SCHEDULE:

The contract shall be effective on the contract agreement date. The assignment is proposed to be commenced within 7 days from the effective date of contract and is scheduled as follows:

- i) The assignment shall be completed within 1 (one) year from the effective date of contract.
- The warranty period shall be 1 (one) year from the date of final acceptance of the Application Software.

7. PAYMENT SCHEDULE

The following payments shall be made deducting 10% from each payment as retention money for warranty period through account payee cheque in favor of the party also deducting Tax, VAT as per Govt. rules wherein applicable. Retention money will be forfeited if the consultant fail to complete the entire job during the implementation period or fail to provide necessary support as mentioned in Clause no 5.6 of Scope of Service during the warranty period or disagree to sign Annual Maintenance Contract (AMC). Retention money will be released after warranty period has ended and after signing of Annual Maintenance Contract (if required).

Payments shall be made maintaining the following schedule:

- (a) 10% (Ten percent) of the contact price shall be paid after completion of (Item no. 5.2.1 (a) and (b))
- (b) 20% (Twenty percent) of the contact price shall be paid after completion of (Item no. 5.2.1 (c), (d) and (e))
- (c) 10% (Ten percent) of the contact price shall be paid after completion of (Item no. 5.2.1 (g))

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- (d) 10% (Ten percent) of the contact price shall be paid after completion of (Item no. 5.2.1 (h),(i) and (j))
- (e) 10% (Ten percent) of the contact price shall be paid after completion of (Item no. 5.2.1 (f),(k) and (l))
- (f) 10% (Ten percent) of the contact price shall be paid after completion of (Item no. 5.2.1 (m) and (n))
- (g) 5% (Five percent) of the contact price shall be paid after completion of (Item no. 5.2.2)
- (h) Remaining 25% (Twenty five percent) of the contact price shall be paid after completion of (Item no. 5.2.1(o)), System Integration and Completion of entire job)

Note: The consultant has to collect work completion certificate from respective section/Department/Division before bill submission.

8. TEAM COMPOSITION AND QUALIFICATION:

The consultant must have following Professional strength with experienced staff to carry out the assignment successfully. The team shall be expertise in DBA, Dot NET, C#, java (or any language), reporting, business process redesign, system analysis and design (SAD), and accounting knowledge.

8.1 STAFFING:

For design, develop, installation, testing and commissioning of the web-based integrated Application software the person-months and field of expertise of the professional and staff for the assignment should include the following:

List of Technical/Professional/Personnel of Consultants:

SI No.	Position	Number of Persons	Months	Man- Months
1	2	3	4	5=3X4
1	Team Leader	1	12	12
2	Technical Staff of Consultant (Domain Expert)	i	4	4
3	Technical Staff of Consultant(System Analyst)	1	6	6
4	Technical Staff of Consultant(Business Analyst)	1	4	4
5	Technical Staff of Consultant(Network Administrator)	1	1	1
6	Technical Staff of Consultant (Software Architect)	1	1	1
7	Technical Staff of Consultant(Database Administrator)	1	2	2
8	Technical Staff of Consultant(Sr. Software Engineer/ Sr. Programmer/ Sr. Software Developer)	3	6	18
9	Technical Staff of Consultant(Systems Engineer)	1	1	1
10	Technical Staff of Consultant (Software Engineer/ Programmer/Software Developer)	6	8	48
11	Technical Staff of Consultant (Technical Document Writer)	1	2	2
12	Technical Staff of Consultant(UI Designer)	1	1	1
13	Technical Staff of Consultant(QA Expert)	1	1	-
14	Technical Staff of Consultant(Training Expert)	2	1	2
15	Technical Staff of Consultant(Maintenance & Support Executive)	2	12	24
	Total Man-Months	24	62	127

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8.2 Qualification and Experience:

Educational qualifications and experiences of the professional Consultants for the assignment shall be as follows:

8.2.1 Team Leader:

Minimum Master's degree from any reputed University. At least 12 (twelve) years of practical job experience. He must have experiences in ERP Business processes evaluation, anticipating requirements of business needs & requirements of the Application Software.

8.2.2 Technical Staff of Consultant (Domain Expert):

Minimum B.Sc in Computer Science & Engineering/Computer Science/Software Engineering/B.Sc Engineering from any reputed University of having at least 10 (Ten) years of practical job experience. He should have working experiences in Application Software development.

8.2.3 Technical Staff of Consultant (System Analyst):

Minimum B.Sc in Computer Science & Engineering/Computer Science/Software Engineering or B.Sc Engineering degree from any reputed University with having at least 10(Ten) years of Practical job experience. He must have experiences in system investigation, analysis, design, implementation and operation of Application Software. Technical Staff of Consultant (Business Analyst):

8.2.4 Technical Staff of Consultant (Business Analyst):

Minimum Master's Degree in Commerce/Business Administration from any reputed University with having at least 10 (Ten) years of Practical job experience. He must have experiences in Business processes evaluation, anticipating requirements of business needs & requirements of the ERP Application Software with ERP Vendor Certificate.

8.2.5 Technical Staff of Consultant (Network Administrator):

Minimum B.Sc in Computer Science & Engineering/Computer Science/Software Engineering or B.Sc Engineering degree from any reputed University with having at least 08(Eight) years of Practical Experience. He must have experience in designing, planning, configuring, installing and maintaining large network.

8.2.6 Technical Staff of Consultant (Software Architect):

Minimum B.Sc in Computer Science & Engineering/Computer Science/Software Engineering or B.Sc Engineering degree from any reputed University with having at least 05 (Five) years of Practical job experience in the relevant field. He must have experiences in high-level design choices and frames technical standards of Application /Large Application Software project.

8.2.7 Technical Staff of Consultant (Database Administrator):

Minimum B.Sc in Computer Science & Engineering/Computer Science/Software Engineering or B.Sc Engineering degree from any reputed University with having at least 05 (Five) years of Practical Experience in relevant field. He must have experiences in development and design of the database for the Application software in SQL Server Database. The database administrator must have proved experience in installation, configuration, administration, monitoring and maintaining security of the database.

8.2.8 Technical Staff of Consultant (Sr. Software Engineer/ Sr. Programmer/Sr. Software Developer):

Minimum B.Sc in Computer Science & Engineering/Computer Science/Software Engineering or B.Sc Engineering degree from any reputed University with having at least

05 (Five) years of Practical Job Experience. He must have working experience in Application Software Project in C#, java (or any language).

8.2.9 Technical Staff of Consultant (Systems Engineer):

Minimum B.Sc in Computer Science & Engineering/Computer Science/Software Engineering or B.Sc Engineering degree from any reputed University having at least 05 (Five) year of Practical Job Experience. He must have experience in configuration, and reliable operation of server/computer system to ensure performance and security of the computer system.

8.2.10 Technical Staff of Consultant (Software Engineer/Programmer/Software Developer):

Minimum B.Sc in Computer Science & Engineering/Computer Science/Software Engineering or "Master Degree with Diploma in Enterprise System Analysis & Design" from any reputed University with having at least 04 (Four) years of Practical Job Experience. He must have working experience in Application Software Project in C#, java (or any language).

8.2.11 Technical Staff of Consultant (Technical Document Writer):

Minimum Bachelor Degree in Science/Commerce degree from any reputed University or Diploma in Computer Hardware & Software Engineering from Reputed Government Approved Organization having at least 05 (Five) years of working experience of working experience. He must have experience in Technical Document preparation for Application Software.

8.2.12 Technical Staff of Consultant (UI Designer):

Minimum B.Sc in Computer Science & Engineering/Computer Science/Software Engineering or B.Sc Engineering degree from any reputed University with at least 03 years of working experience or Diploma in Computer Science & Engineering/ Computer Science/Software Engineering from any reputed Polytechnic Institute with at least 05 years of working experience. He must have experience in user interface design by using standard design tools.

8.2.13 Technical Staff of Consultant (Quality Assurance (QA) Expert):

Minimum B.Sc in Computer Science & Engineering/Computer Science/Software Engineering or B.Sc Engineering degree from any reputed University with at least 03 (Three) years of working experience or Diploma in Computer Science & Engineering/Computer Science/Software Engineering from any reputed Polytechnic Institute with at least 05 (Five) years of working experience. He must have experience in developing quality standards, conducting tests and identifying issues of the developed software.

8.2.14 Technical Staff of Consultant (Training Expert):

Minimum B.Sc in Computer Science & Engineering or Bachelor degree in Science from any reputed University & Master's Degree from any reputed University with at least 03 (Three) years of working experience. He must have experience in formulates training outlines and provide training.

8.2.15 Technical Staff of Consultant (Maintenance & Support Executive):-

Minimum B.Sc in Computer Science & Engineering/Computer Science/Software Engineering or B.Sc Engineering degree from any reputed University with at least 01 (One) years of Experience or Diploma in Computer Science & Engineering/Computer Science/Software Engineering from any reputed Polytechnic Institute with at least 03 (Three) years of working experience. He must have experience in providing support for Application/Application Software.

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