

BHAGYANAGAR GAS LIMITED

(A JOINT VENTURE OF HPCL & GAIL)

BID DOCUMENT FOR

Procurement and Implementation of an integrated application on SAAS model for connecting BGL's PNG Customers, Meter Reading, Billing, Customer Accounting, CRM, After Sales and Projects activities including Mobile Apps.

UNDER OPEN DOMESTIC COMPETITIVE BIDDING

e- tender

Bid Document No.: BGL/576/2023-24

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SOR format as in E-Tendering portal.



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SECTION-7 SCOPE OF WORK



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1.0 Overview

The scope of work for the Contractor shall be to provide the following services to BGL.

I. <u>Information to bidder.</u>

- 1. Presently BGL is using the application of Bynry since 2018 for meeting the requirements listed in the preceding section. The application of Bynry has reached its end of life and with new business scenarios cropping, it is felt prudent that BGL adopts a new integrated application for its business processes.
- **2.** BGL uses TALLY for its Finance, procurement and inventory. It is expected that data will be scheduled to be uploaded and downloaded from TALLY.
- **3.** The present application is developed using PYTHON 2.7 Django and MySQL database. Bidder will carry out data migration from the existing application to the new application.
- **4.** Bidder must review the features of the existing Bynry applications and ensure that all the features are available with their application.
- **5.** Piped Natural Gas (PNG) is supplied to households, commercial establishments like hotels and industries, whereas CNG is for vehicles.
- **6.** The present scope is confined to the processes of PNG.
- **7.** BGL is in the possession of Android based Meter Reading and Spot billing devices, these devices to be utilized by bidder organization to deploy their solution.
- **8.** The City Gas entities are governed by the norms of PNGRB (Petroleum Natural Gas Regulatory Board), so all the reporting requirements those needs to be submitted to PNGRB should be generated with few clicks from the proposed application.
- **9.** BGL contemplates to implement the scope listed below in two phases.
- **10.** The present RFP will be evaluated on QCBS (Quality and Cost based selection) where 75% weightage will be given to the Bidder Eligibility Criteria, VOL I of II of bid document.

II. General Scope of Services and Specifications

- **11.** The scope of the application as enlisted is in the minimum required. The application needs to be an integrated with all modules capable of interacting seamlessly with each other.
- **12.** BGL desires to use bidder's solution on a SAAS (Software As A Service) model. The bidder should host the application in a secured cloud by applying appropriate SSL.
- 13. Bidder must provide segregated environments for Quality Assurance and Production.
- **14.** Bidder must ensure that the application is running 24x7 with a guarantee of 99.9% uptime. As a response to the bid bidder must submit a declaration for the same.
- **15.** Bidder solution should be capable of multiple payment gateway integrations including UPI. As a response to the bid bidder must submit a declaration for the same.
- **16.** Bidder solution should be compatible with all browsers like Chrome, Internet Explorer, Firefox, Edge, Brave etc. and their upgraded versions as and when they are launched.



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17. BGL intends to create a data pool by downloading data in predefined template from the bidder application. The data can be in CSV or delimited with ";". In the minimum following download is needed:

a. Customer master: Once a week

b. DPNG bills generated: Daily at 10:00 PM

c. Payments: Daily at 11:30 PM.

d. Customer Balance / Outstanding: Daily 1:30 AM

e. Customer Adjustments: 3:00 AM

[The timings may be finalized on award of contract]

18. Mapping the New Connection Process (Domestic)

- i. Bidder solution should identify all the societies / buildings uniquely where gas supply is reaching or will reach. Each and every premise (customer's premise) should be mapped to the building with 1:N relationship. The building should be identified by unique id and an address. Further the information of potential customers, Project vendor, NOC of the society, the Service Regulator (SR) etc. should be entered in the system
- ii. Service Regulator should be a superior functional location of the building. So if a SR is under maintenance BGL will be able to get the information of the customers those who will be impacted.
- iii. CRN (Customer Relationship Number / Business Partner) will be created on the receipt of Registration amount.

iv. The process of Registration

- a. Registration can happen in the following mode:
 - By approaching the customer with registration forms where the customer fills up the form and attaches the relevant documents for verification. The customer makes payment by cheque.
 - Marketing agents carry a tab/mobile for doing the registration where the photos of the relevant documents are clicked. Customer can make payments using cards or UPI on POS machine.
 - Customer can themselves do a self-registration on the website of BGL where payment gateway integration will be available.
- b. The features of the first two bullets need to be developed by the bidder.
- c. For the first bullet registration form will be generated from the system based on the potential of building.
- d. The registration data will be updated in bidder's platform from the three sources.
- e. For the registrations taking place at customer premise the Geo coordinates needs to be captured



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- f. The system must have provision to update the payment details based on the statement from banks.
- g. The moment the payment is updated a service notification and order to be generated in the back-end and a CRN / Business Partner will be generated against the Registration ID.
- h. The payment received must be booked through a sales order which will be updated to Tally. Auto notification to be send to customer via email and SMS intimating the payment confirmation and CRN.
- i. Service notification will create a list of standard task + 2 other optional tasks. Status of each task will be updated from time to time.
- j. Service order is created with validations and with respect to tasks mentioned to capture service and material cost for the customer.
- k. System to generate Meter Job card (MJC), Print out of service order with Customer details like address, amount paid. MJC cannot be generated more than once if reprinting has to be done authorization needs to be given.
- 1. Bidder will create a mobile App for the Last Mile Connectivity's (LMC) planning, consumption and activity tracking. The app will have the capabilities to pull data from the inventory of vendor stores and allocate during consumption. The other features of the APP will be:
 - Planning for LMC
 - Allocating Meters to Customers
 - Update of inventory consumption
 - Capture the Latitude / Longitude of the customer premises accurately to the extent possible and update the same in Master Data
 - A browser interface to BGL project / area in-charge (AIC) to track the LMC activities
 - All documents including the photo of meter and MJC to be stored in the server
- m. Once the activity LMC of customer is confirmed by the AIC the customer to be tagged as "Move-IN" in the system and it should become billable.
- n. The detailed LMC scope of LMC will be finalized on award of contract.
- o. Reversal of Move-In:

Some common reasons for a move-in reversal:

- The move-in was mistakenly created with an incorrect CRN.
- The move-in was mistakenly created with the installation of an incorrect premise or building.



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 The business partner subsequently announces that he/she is not taking over part of the installation of a premise. In this case, you reverse part of the move-in and recreate it using the relevant part of the installation.

p. Builder Category Customers

Builder is either individual or organization. Connections for the entire flats phase wise were considered at one go in different phases of construction respectively.

- Builder pays registration charges on behalf of all the flats in a scheme.
- Transfer of amount to be done to the customer from builder when builder or customer pays the remaining amount of the scheme.
- System will restrict the number of customers being created for a building as promised by builder if captured in connection object.

Builder category CRN (Different number range) is created for each phase. In the template for buildings a field to capture the original Builder category name for the same builder category BP created phase wise. Phase number is captured in connection object.

Based on total potential customers in Building, customers are created for each premise as flat and floor number as name. Amount paid by builder for registration will be transferred to business partners in Tally.

When the individual flat owners are created as CRN and approval has been received to transfer the R & C charge from Builder pool account to the respective CRN (which is dependent on creation of sales order in CRN). A program needs to be executed to transfer the R & C Charge from Builder Pool Account to the individual customer account. Name change / KYC to be followed. As a result of this the transaction will be as follows:

In case of Institution, name of the institution will be captured instead of Builder Name and builder category

System should also link CRN with CRN of Builder / Institution by using some Relationship feature.

Customer (Builder Pool Account)	Dr.
To Customer A	Cr
To Customer B	Cr
To Customer C	Cr

At the time of running the program system will take care that the amount transferred from the Builder Pool Account never exceeds the balance of the builder pool account.

If any transfer needs to be done between the customer accounts manual entry has to be done.

19. Mapping the New Connection Process (Industrial & Commercial[I&C])

The new connection process for I&C customers are similar to domestic. However bidder



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solution should map the following process:

- As an I&C Customer requests for BGL gas connection is created as a CRN of type "Prospect".
- Service notification will be created with relevant tasks to capture the status of work
- Feasibility study, identification of the category of customer, meter size and other tasks are carried out externally and update the relevant tasks in service notification
- After feasibility study is done then Quotation is created externally and is send to customer for approval. For technically not feasible customers notification is technically closed.
- Once customer accepts the quotation the CRN type is changed from prospect to respective category (Industrial / Commercial etc.)
- On approval of quotation the Registration fee is collected from customer.
- Manual posting of statistical charges towards application fees.
- The registration fees received against the application form will be treated as income and credited to Revenue GL. For accounting the registration fees, statistical charges will be posted against each customer and payment will be posted against such statistical charges.

Once Registration fee is collected, then a Main Service order is created from notification.

The main order is assigned to 3 suborders.

- **Sub order** –1 is created for work outside (pipe line laying) customer
- premise.[External Premise]
- **Sub order** -2 is created for work inside (pipe line laying) customer
- premise till MRS/SR. [Internal Premise]
- **Sub order-** 3 is created for meter. [Meter]

Sub order –1 [External Premise].

- ✓ The dedicated MP/Steel on the public corridor will be treated as part of the network and will not be charged to the customer.
- External pipe laying activities for MP/Steel on the public corridor are maintained as operations and updated respectively by confirmation.
- Goods are issued against the service orders against the reservation made from vendor storage location.
- ✓ Goods issue from Vendor Storage location against order.
- External Services performed by vendor will be captured by Service entry sheet with order account assignment.
- ✓ WBS of the project area is assigned to the service order for budget check and costing report. (We will keep this for the Phase – II)
- ✓ Once all the activities are completed the orders are technically completed.

Service Order -2 & 3



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The connection charges are calculated on the actual costs incurred from

both the orders and will be collected from the customer.

✓ Internal pipe laying activities, installation and commissioning activities of

meter inside customer premises are maintained as operations and updated respectively by confirmation.

- ✓ Goods are issued against the respective service orders against the reservation made from vendor storage location.
- ✓ Goods issue from Vendor Storage location against order.
- ✓ MJC print out
- ✓ External Services performed by vendor will be captured by Service entry

sheet with respective order account assignment.

 \checkmark Once actual costs are captured in orders, the billing request against these

orders is created

 \checkmark Once billed, the amount to be collected is posted to the account of the

customer as connection charges receivable.

✓ The connection charges may be received from customer either as a lump

sum payment or through instalments.

✓ If it is a lump sum payment, it shall be posted against connection charges

open item through payment lot transaction.

✓ Where the payment is to be received in instalments, interest for the instalment period is to be calculated externally and the same shall be posted against the customer account as statistical line items with future due dates and later an instalment plan is to be created against connection charges line item and interest line items.

<u>Prepaid Meters:</u> In many I&C customers pre-paid meters are used. The scope of which will be finalized post award of contract.

Move-In / Reversal of Move-In

Move-In / Reversal of Move-In process will be similar to Domestic.



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Schemes in Registration

The system of the bidder should be configurable to map schemes related to Registration where scenarios can be any one or more of the following:

- Normal scenario where the customer pays the entire amount upfront.
- Customer can pay registration in some fixed installments in gas consumption bill.
- Customer can pay partial amount of registration and balance as instalment in consumption bill or entire balance amount in first bill
- Customer can pay the full registration fee in the first bill.
- If the customer has paid the entire amount upfront she / he might get a credit (% or fixed amount) in first or two three bills.
- Interchange of scheme / switch over of scheme: Customer can move from one plan to another scheme. This needs to be approved through a workflow so that from the next bill different scheme is implemented.

Such schemes are introduced from time to time and are applicable for a period of time. The schemes are generally applicable to Domestic customers, however they can be extended to Industrial and Commercial.

Legacy Data

The CRN created in existing platform needs to be migrated as it is along with its Registration ID. In the present platform CRN is allotted only after Move-In while in the bidder's application it is proposed to have the CRN immediately after Registration. The bidder should propose the method of legacy data migration in response to this bid.

20. Meter Management and Meter Reading

- a. Meters should be identified uniquely by its manufacturer serial number and a serial number generated by system. So, when the meter is received in the stores the same should be uploaded in the system with both the serial numbers.
- b. Considering that meters need to be tracked it should have its state (OK/defective) and status. There can be three status for a meter that is "OK" viz. at "BGL Store", "Contractor Store" or "Installed" (at customer's premise).
- c. Meter installation is a part of the LMC activity as mentioned in the earlier section.
- d. Meter reading takes place based on "Portion" and "MRU" (Meter Reading Unit). Portions are generally Area / Locality and MRU are generally roads. Based on the billing cycle of customers meter readers are to be allotted meter reading schedule and their sequence of taking the meter reading in a MRU. It is expected that bidder



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will develop an App for meter readers the scope of the same can be discussed in detail on award of contract. Meter readers will click the photo of the meter reading through the App and if customer is not available meter reader will click the photo of the premise door. In cases of door lock a SMS to be triggered to customer mentioning that "Your reading has been missed" and details of where the customer

- e. Apart from meter reader a sizable section of meter reading is obtained through smart meters where meter readings are directly stored in our server. Bidder's solution should develop an API to poll data on regular interval from the server.
- f. Additionally meter readings can be obtained from the customer through the Consumer mobile App / WhatsAPP / SMS. So a situation might arise where readings are received from all sources. Bidder's solution should be intelligent to pickup the latest (highest?) reading.
- g. Implausible readings should be earmarked. Implausible can happen if current meter reading is less than previous meter reading. The system should check whether there has been a meter replacement if not the meter reading should be rejected and can be considered only after approval of the competent authority. Very high gas consumption also needs to be highlighted. So while considering the current meter reading reference to last three actual meter readings needs to be made.
- h. Meter Replacement: Defective meter from customer's premise needs to be replaced and system should have the facility to carry out the same. An interim bill will also be generated and reading of the new meter to be considered for next billing. The defective meter needs to be returned to stores as a scrap.

21. Billing and Outstanding Management

can upload the meter reading.

- a. Billing is done based on consumption which is obtained from meter reading.
- b. Bills are to be generated based on billing cycle. Bills can be generated in bulk and individually. Generally, the bills are generated once in two month for a customer.
- c. When actual meter reading cannot be obtained assessed bill to be generated assuming a pre-defined consumption. However, the system should have the provision to generate estimated bill based on the average of last three actual bills.
- d. Rate per SCM is to be maintained in the rate master. Though the bills are to be generated in SCM a working of MMBTU bills also to be displayed. The formula to convert from SCM to MMBTU will be shared on award of contract.
- e. Out-sorting of bills: During bulk billing, bills with too low amount and too high amounts will be out-sorted for analysis.
- f. Provision to reverse bills and correct the bills with appropriate audit trail to be provided in the system.
- g. Provision for debit notes and credit notes will be given.



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reversal of penalty will be recorded in the system.

- i. System should allow the generation of interim bills.
- j. Each bill should specifically mention the following:
 - ✓ The rates applicable in the period of bill. So, during a billing period if there has been change in the rates of the gas three times the consumption will be segregated proportionately and rates will be applied to arrive at the basic amount.
 - ✓ Each bill should display credit and debits separately.
 - ✓ Bills should have display of history of last three consumptions.
 - ✓ Outstanding from previous bills to be displayed in a separate line items
- k. **Dispatch of bills**: Once bill is generated the bidder's application should carry out the following:

h. System will have provision of Penalty for late payments or non-payments. Any

- ✓ E-Mail the bill to each customer in PDF format.
- ✓ Send SMS and WhatsApp of the bill
- ✓ Generate txt file of the entire lot which will be emailed or uploaded to a drive in cloud for printing and dispatching by courier or postal service.
- 1. **Spot Billing**: The Meter Reader should be able to generate spot bills through the hand-held device of meter reading App. The database of the device should be refreshed everyday morning with latest bill amount and adjustment of any outstanding paid.
- m. **Management of outstanding:** The bidder solution should appropriately manage the outstanding and auto generate dunning letters which will be send through e-Mail, SMS and WhatsApp. Analysis of outstanding should be available in the system and standard reports like ageing analysis (like 0-30, 31-60, 61-90, 91-180, > 180) can be generated at a click of a mouse.
- n. An App for collection will be provided for collection agents of BGL, who will visit the premise of customers who has not paid gas bills within due date. The agent will carry a POS device which will print out the receipt of the payment.
- o. The spot billing and collection app may be integrated which can be deployed on PayTm device please check the present functionality used by BGL
- p. All statements from Bank can be easily uploaded to the application to credit the customers

22. Disconnections

- a. Disconnections can be of two types viz. Temporary (TD) and Permanent (PD).
- b. For a PD to happen the customer has to be refunded the security deposit after adjusting the outstanding. A maintenance notification for PD is to be generated on receipt of the request for the same. The maintenance team will visit and generate an interim bill after taking the reading, post which meter will be disconnected and return to stores. A refund note will be initiated by the system and the customer will



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be refunded the security deposit after adjusting the outstanding amount. The customer will be "Moved Out" of the system

- c. A request for TD is received generally when the building or the kitchen of the customer is under renovation. On request of TD a service notification is to be generated only if customer has cleared her / his balances. Based on the notification generated customer will be asked to pay the TD charges and the disconnection will be carried out at customer's premises. The Meter will be kept in customer's custody and will be reinstalled when customer requests for a reconnection. Reconnection will also follow the similar process where customer has to pay reconnection charges. When customer is tagged in the system as "TD" automatically a billing block will be applied.
- d. TD can be done by BGL for outstanding customers.
- e. System will also have the provision to levy non-usage charges i.e. when the customer is not using gas. In such cases bills will be generated with non-usage charges

23. Customer Relationship Management

- a. Customers can connect with BGL by following means:
 - ✓ Walk-In
 - ✓ E-Mail
 - ✓ Call the CRM help desk
 - ✓ Website
 - ✓ Customer App
- b. Whatever the mode of contact all calls should be recorded in the central database of the bidder's solution. Whenever possible Latitude and Longitude of the customer premise will be entered
- c. A customer can be searched by the following methods:
 - ✓ CRN Number
 - ✓ Mobile
 - ✓ E-Mail
 - ✓ First Name / Last Name
 - ✓ Building / Society
 - ✓ Meter Number
- d. Once the customer is identified a screen should display all the latest details of the customer, like if it's a gasified customer in the minimum the following details to be displayed on the CRM Dashboard:
 - ✓ Date of Mov-In
 - ✓ Meter Readings
 - ✓ Bills
 - ✓ Payments



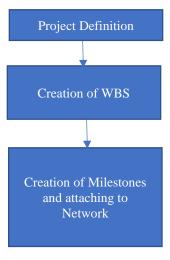
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- ✓ Status of last complaint
- e. The calls will be entered in the system and ticket will be generated. The ticket follows a workflow depending upon the nature of the ticket. Customer to be notified the ticket details through SMS and e-Mail.
- f. In case a ticket is of after sales service which has financial implications to the customer it should be notified to the customer and the customer care executive to be displayed the details.
- g. Benchmark days for closure will be auto allotted. If a complaint is not closed withing allotted benchmark days the same will be escalated as per the escalation matrix which will be shared. The details of QoS of PNGRB will be shared on award of contract.
- h. A periodic MIS status of all calls logged will be available.

24. Projects

- a. BGL has five broad category of projects viz: Steel, Medium Pressure (MP), Low Pressure (LP), GI and Last Mile Connectivity (LMC)
- b. Each project for each category will in general have a the following structure:
 - i. Project Definition
 - **ii.** Work Break Down Structure (WBS): is a model of the project that organizes project tasks into a hierarchy. It is the functional basis for planning further steps in a project. For example, for cost planning, scheduling, etc., as well as for project control.
 - iii. Network: A Network represents the flow of a project or of a task within a project
 - iv. Detailed Activity
 - v. Milestones of project
 - vi. The hierarchy will typically look as below:





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- A reference to the "Charged Area" must be made while creating the WBS. vii. Additionally WBS should have the details of the contractor / project id.
- c. Management of project budget and cost: Budget will be allotted against project definition and system to generate a statistical Purchase Order against any order placement or expense. The PO while getting created will check for the availability of Funds and the system will allow the creation of PO only if the funds are available. Since BGL uses TALLY for procurement this PO will be referred in TALLY while creating the PO. Once the actual PO gets created in TALLY the reference of the same will be entered in bidder's application. The value of the PO will be treated as commitment of funds.
- d. Against each milestone and activity Daily progress Report must be entered and a MIS to be generated for Milestone vis-à-vis progress
- e. Various testing reports to be recorded in the system
- f. For Last Mile Connectivity the bidder's application (including mobile App) should have the following capabilities:
 - Contractor will be provided a web based login
 - Contractor Supervisor to be able to see all the customer sites allocated to
 - Supervisor to update various stage completion work.
 - Provision to upload on-spot photographs of the stages LMC activities completed with photographs and signature for verification by PMC, TPI.
 - Provision to verify customer details & upload MJC with digital signature of both contractor and the owner/tenant this should be mandatory.
 - Provision to take customer signature on Safety tips, Do's and don'ts before conversion.
- g. Steel and MP line laying are to be monitored in details the joints used in each line should be available in the application. The testing reports are to be recorded in the system
- h. Bidder should as respond to the bid should highlight how their solution carries out asset management.

25. Control Room Operation and After Sales

- Outages that are reported are recorded in the system. The moment an outage is recorded a SMS will be triggered to the nearest field staff.
- ii. A service notification will be created on receipt of call
- iii. The steps taken to resolve the issue will be recorded in the system and closure along with expenses incurred will be calculated.



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- iv. For gas leaks and meter running fast appropriate business processes of BGL is being drafted which will be shared on award of contract. These processes are likely to have impact in the bills / credit notes.
- Maintenance Planning of SR and DRS.: The Control Room Person will create a v. notification in the system on the failed technical object through system. The Maintenance Engineer will plan his maintenance activities based on the intimation. He will create a work order with material requirement, manpower requirement if required external services requirement directly by notification.
- Operation will issue work permit to carry out job. After permit is issued and material, manpower availability is checked, order will be released through the bidder's system, Operation will perform the Repair work if it is minor. If it is major breakdown Complaint will be transferred to Maintenance Team. After Completion of job, Maintenance person will confirm the actual man hour consumed in the work and record it in the system. The maintenance manager will do the technical completion after completion of job.
- vi. Mapping of Preventive Maintenance (PM) Strategy: The system should have provision to map maintenance strategy with pre-defined task list against each PM head. Schedule of the PM will be maintained in the system and appropriate notifications will be triggered to the concerned. Based on the notification orders will be created for maintenance activity, details of each activity will be updated in the system.
- Assigning of Task based complaints and PM: System should have the facility to assign vii. , de-assign and reassign complaints both in bulk and individually
- viii. Material Requisition: Material requisition to be done in the system and on approval should be issued.
- Provision to collect payment by using POS device for the maintenance work done. ix.
- All detailed reports, MIS and dashboard of maintenance activities to be available in х. the system

26. Other Essentials of the System

- a. Bidder must ensure that in the event of disaster of the primary hosting site bidder should move the application to its Disaster Recovery site within six hours.
- **b.** Bidder must ensure that daily the backup of the database and application is taken and stored in an external device.
- c. BGL must be given access to an issue logging and tracking system where issues can be logged and tracked.
- d. Bidder should provide an entity relationship diagram along with detailed explanation of database tables. Bidder must provide access to database of the application to the IT team of BGL in a secured manner. On conclusion of the contract bidder must handover the latest data in MySQL / SQL Express database.
- e. Bidder must provide one year warranty of the application, post the conclusion of the warranty maintenance contract will be effective. The warranty period will commence from the date of Go-Live.



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- f. Any change in the application requested by BGL which involves less than 6 man days of effort will be carried out by bidder within warranty and maintenance.
- g. Considering this is a mission critical application BGL might carry out a VAPT of the same, all recommendations of the VAPT will be incorporated by the bidder without any additional financial implications to BGL.
- **h.** The following Mobile Apps will be delivered to BGL:
 - i. Registration
 - ii. Meter Reading
 - iii. Spot Billing
 - iv. Collection
 - v. Customer Facing Mobile App i.e. which can be downloaded from playstore by customers (Please Refer Annexure – I for details)
 - vi. LMC App
 - vii. O&M after Sales / emergency App
- i. Bidder will execute this project in 80% 20 % modality i.e. 80% offsite from bidder's office and 20% on-site i.e. from BGL's Hyderabad office. For any on-site requirement visit of bidder's consultant BGL will not be billed separately.
- j. Training: Bidder will impart the following sets of training to BGL personnel as a component of their deliverable.
- i. End user training: For employees, manager and HODs on portal usage and workflow.
- ii. For server administration: This will include administration, super-user and application management. The audience for the training will be BGL IT team and module administrator.
- iii. Training manuals: Bidder will supply all relevant manuals including the requirement specification, detailed design and data definition documents. On line Help should be available along with the application interfaces.
- k. It should be specifically noted that in general BGL operates from 9:15 AM to 6:00 PM, Monday to Saturday. So bidder should be responding to the help desk during these days and for any critical issue on Sundays and public holidays.

Currently BGL proposes the following severity resolution matrix:

Sl. No.	Severity Category	Definition	Response Time in hours	Resolution time in hours
1.	S1: Critical	Business has been impacted and operation has been halted	Immediate	4 hours
2.	S2: Very High	The impact has been on a group of users and / or has the potential to turn into S1, this may include the degradation of performance	Immediate	08 hours



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3.	S3: Normal	Errors and bugs in	08 hours	16 hours
		functionality which does not		
		have impact on the business		
		functionality		
4.	S4: Minor and	These are cosmetic changes	16 hours	4 days
	cosmetic	and enquires		-

l. Penalty:

a) The Go-Live of Phase -1 of the project is to be completed in 16 WEEKS & Phase -II within 25 weeks from the date of project kick-off, any delay may attract phase wise penalty of 0.5% per week to a maximum upto 5% of the Sl.No.1 and Sl. No.2 amount of Schedule of rates.

b) Penalty for post-go-live support will be levied in accordance to the following table:

Sl. No.	Severity Level	% of Resolution not met within target	Penalty imposed
	S1: Critical	> 9.9%	3% of the bidder's monthly invoice value
	S2:Very High	> 10.9%	2% of the bidder's monthly invoice value
	S3:Normal	>14.9%	1% of the bidder's monthly invoice value

Further for delay in execution standard PRS/LD as per GCC shall be applicable

m. Integration with GIS

Presently BGL is using a GIS and asset tracking solution from Ananth Technologies. Bidder must supply the Geo locations of the customers to the GIS , additionally an API if developed GIS application can poll the data from the GIS platform.

n. API Development

Bidder will develop all the required APIs for Payment Gateway integrations, meter data polling from AMR and any other third party which is necessary for operating the application and generating necessary MIS. Additionally, dynamic QR Codes to be placed on the customer invoices will be placed.

o. <u>Dashboards</u>

Bidder will develop various dashboards for top management and managers. The dashboards will be with respect to registration versus conversion, meter reading, billing, outstanding, project progress, status of gasified building / societies with respect to conversion, call center



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and control room operations. These are just indicative list and not exhaustive. It is expected that bidder's solution should have features to generate dynamic queries which can generate information outside the standard dashboards.

p. <u>Segregation of Duties(SOD)</u>

Bidders Solution should be capable of implementing SOD rules as per BGL requirement. The application should adhere to

q. Alarms and Triggers

Application should be capable of configuring alarms and triggering notifications at various stages of project, registration, call management of CRM & control room, outstanding of customers etc.

r. Responsibility Matrix and Project Roll out Charter

Please refer to Annexure-II

s. Access to Database

Bidder on award of contract and after completion of UAT will provide access to the application database to BGL's IT team through some interface.

t. Project Phases

Sl.No.	Project Phase	Module Details					
1.		Mapping New Connection Process of					
		Domestic Customers					
2.		Schemes in Registration					
3.	Phase I	Meter Management and Meter Reading					
4.		Billing and Outstanding management					
5.		Disconnections					
6.		Customer Relationship Management					
7.		Projects [Only Last Mile Connectivity]					
8.		Mapping of New Connection Process					
	Phase II	[Industrial and Commercial]					
9.		Projects					
10.		Control Room and After Sales					

27. Bidder As Respond to bid must submit following:

- a. Bidder's QA/QC System
- i. Bidder should detail out their Quality Plan to execute the contract.
- b. Method Statement and Contract Execution Plan



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- i. A detailed Method Statement should be submitted showing the procedure and arrangements the Bidder shall follow in executing the Services. Bidder shall also submit detail Execution Plan by tabulating the schedule and submitting a corresponding project Gantt chart for the same depicting various stages of supply and services. As part of the method statement bidder will tabulate each of the item mentioned in Section-II, III, and IV, confirm its compliance and wherever elaborate response has been requested should be adequately elucidated. [Please refer ANNEXURE III for a sampler]
- c. Subcontracting / Partnering
- a. Bidder will not sub-contract any of the part of the contract other than hosting of the solution.
- d. Details of Bidder Personnel

C.V of Contractor Personnel who will be available for the execution of services is to be enclosed with each CV having the following details in the minimum:

- Name
- Position Proposed in BGL Project:
- Technical skills
- Position in the Company

e. Bidder's Organization Chart

Bidder's Organization structure proposed for the contract, indicating reporting levels within his organization and proposed lines of contact / communication with BGL for the staff whose CV are included should be identified on the Organization Chart attached.

Additionally bidder will enclose escalation matrix containing contact of personnel to be contacted during exigencies.

Bidder shall provide sufficient details / writeup as to why they believe they have the capabilities to deliver the integrated solution of Customer acquisition, Meter Reading, Billing, CRM and Project activities



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ANNEXURE – I [Feature of Mobile App]

Purpose of the Mobile App

Any citizen who is interested in gas connection or using BGL's gas connection can download this App. The App will encompass the customers of CNG and Domestic PNG. The App will be available both in Google Playstore and Apple Store for IOS.

There will be two distinct sections in the mobile APP viz. CNG and PNG

I. <u>CNG</u>

- 1. About CNG
- 2. CNG Station Locator (Select's Geography/Area/Location)
- 3. Car Models that support CNG
- 4. Prevailing CNG Rates
- 5. CNG Savings calculator in comparison to Petrol, Auto LPG & Diesel logic will be provided on award of contract
- 6. CNG Kit supplier based on Geography
- 7. List of Cylinder testing center
- 8. FAO on CNG
- 9. CNG car care

[The entire section can be accessed by anyone who downloads the App and need not require any specific Login]

II. PNG

- 1. About PNG
- 2. PNG Payment Locator [Two sub sections : Drop Box, Across the counter]
- 3. PNG Rate Card
- 4. If You Smell Gas
- 5. My bills [Only accessible through login]
 - a. Last Three Bill
 - b. Last Three Payment
- 6. Policies and Procedures
- 7. Download (Name Transfer Form, Registration Form)
- 8. Meter reading:
 - a. This sub section will open up only when an app user logs in
 - b. After logging in the user will be able to click the photo of meter reading through the camera invoked by the app and not upload any photo.



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c. Camera to capture the image of meter should open 15 days prior to billing cycle and close after that date. A SMS notification to be send to the customer about the same.

9. Customer complaint portal will be based on complaint category

	Category	Sub-Categories		
		2 nd Stove Connection		
		Gas Geyser		
1.		Rubber Tube		
	A from Color	Stove Burner		
	After Sales	T Connection		
		Gas Geyser		
		Perm Disconnection		
		Temporary Disconnection		
		Wrong calculation		
2		Arrears issue		
2.	Billing	Penalty		
	Billing	Bill not received		
		New Registration		
3.		Refund		
3.	Marketing	Reversal of refund		
		Meter Running fast		
4.	Motor	Meter not read		
4.	Meter	Wrong Reading		
		Miscellaneous/ Other		
		Conversion pending		
		No job done for less than 3		
		months of full payment		
5.		Not converted but getting billed		
	Project	Meter Copper		
		Patchwork		
		Reinstatement		

[The above table is a sampler and complaints can be lodged only by logging]

- 10. Web interface to the app should be available to carry out the following:
 - a. Notification dashboard: To send important notifications to the users of the App
 - b. Update rates of PNG/ CNG / Petrol / Diesel based on Geographical Area (Petrol and diesel will be needed to
 - c. Update of drop box / payment walk in center



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- d. Customer complaints view and action on the same. The latest status will be viewed in the App
- 11. The source code of the App will be handed over to BGL and will be uploaded in the BGL's Google Play store account.



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Annexure II - Project Roll out charter deliverable and Responsibility Matrix

The major phases of the project will be as under:

Sl.No.	Project Phase	Responsibility	Deliverables	Remarks
1.	Project Kick-off	 R: Bidder A: BGL / Bidder C: BGL Project Lead / Bidder Project Incharge I: BGL and bidder management 	 Project Charter Formation of steering committee Formation of Core team from BGL 	Steering committee to be comprised of members of top management of BGL and Bidder organization, which will hold meeting once in a month.
2.	Requirement specification (SRS) / Business Blue Print	 R: Bidder and BGL A: Bidder and BGL C: BGL management I: All concerned stake holder 	Signed System Requirement Specification Document	The As-Is process will be explained to bidder by BGL and based on that the To-Be processes that can be configured and custom build will be done
3.	System Design Document (SDD)	 R: Bidder A: Bidder C: BGL project incharge I: BGL project incharge 	Signed SDD Document	
4.	Configuration and Development	 R: Bidder A: Bidder C: BGL project incharge I: BGL project core team 	Ready for TestingUnit Test scripts	
5.	Unit and Integration Testing	 R: Bidder and BGL Core team A: BGL project in- charge and bidder's project director C: BGL project in- charge and bidder's project director I: Steering committee 	Test Report	Bidder to do the initial level of unit testing
6.	Rectification of bugs	R/A/C: Bidder organizationI: BGL project incharge	Bug fixation matrix	



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	Go-Live Preparation								
	Project Phase	Deliverables	Remarks						
7.	Master Data Templates	 R/A/C: Bidder organization I: BGL project incharge 	Templates of master data						
8.	Master Data preparation	 R/A: BGL core team C: Bidder's project in-charge I: Bidder project team 	Master Data available in Development / Test environment						
9.	Cutover Strategy	• R/A/C: BGL & Bidder project team	Presentation to steering committee on cutover strategy						
10.	Training	R/A/C: Bidder organizationI: Steering committee	Training manuals						
11.	Cutover Data Preparation	 R/A: Bidder project team C: Bidder and BGL project incharge I: Steering committee 	Cutover Data from legacy to live server	Bidder organization to prepare all scripts to dump data from legacy data base					
12.	GO-LIVE	•							
13.	Hand holding and support phase	•							

Note: The above is tentative R&A matrix. Bidder can submit their R&A matrix with revision on response to the bid.

- R: Responsible
- A: Accountable
- C: Consult
- I: Information



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Annexure III – Sampler of Method Statement

Customer Relations Management

SL.No.	Requirement	Bidder's Solution Compliance	Remarks
1.	Customers can connect with BGL by following means: a. Walk-In b. E-Mail c. Call the CRM help desk d. Website	AV	
2.	e. Customer App Whatever the mode of contact all calls should be recorded in the central database of the bidder's solution. Whenever possible Latitude and Longitude of the customer premise will be entered.	СО	
3.	A customer can be searched by the following methods: a. CRN Number b. Mobile c. E-Mail d. First Name / Last Name e. Building / Society f. Meter Number	AV	
4.	The calls will be entered in the system and ticket will be generated. The ticket follows a workflow depending upon the nature of the ticket. Customer to be notified the ticket details through SMS and e-Mail.	AV	
5.	In case a ticket is of after sales service which has financial implications to the customer it should be notified to the customer and the customer care executive to be displayed the details	CD	
6.	Benchmark days for closure will be auto allotted. If a complaint is not closed withing allotted benchmark days the same will be escalated as per the escalation matrix which will be shared. The details of QoS of PNGRB will be shared on award of contract.	CD	

<u>Abbreviations:</u> AV-Existing feature; CO-Configurable; CD: Customization / Development; NP: Not Possible

[Please note this is just a sampler and bidder has to fill the above template in accordance to their solution being proposed]



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SECTION-8

SPECIAL CONDITIONS OF CONTRACT (SCC)



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1.1 General Instructions

- 1. Special Conditions of Contract shall be read in Conjunction with the General conditions of Contract, specification of work, Drawings and any other documents forming part of this Contract wherever the context so requires
- 2. Notwithstanding the sub-division of the documents into these separate sections and volumes, every part of each shall be deemed to be supplementary to and complementary of every other part and shall be read with and into the Contract so far as it may be practicable to do so
- 3. Where any portion of the General Condition of Contract is repugnant to or at variance with any provisions of the Special Conditions of Contract, unless a different intention appears, the provisions of the special Conditions of Contract shall be deemed to over-ride the provisions of the General Conditions of Contract and shall to the extent of such repugnancy, or variations, prevail
- 4. Wherever it is mentioned in the specifications that the Contractor shall perform certain work or provide certain facilities, it is understood that the Contractor shall do so at his cost and the value of contract shall be deemed to have included cost of such performance and provisions, so mentioned
- 5. All the work specifically mentioned in the tender document is under the scope of the contractor. All other works not specifically mentioned but required for successful execution of the work shall also be performed by the contractor and payment shall be paid as per the terms and conditions mentioned elsewhere in this document
- 6. The BGL office in Hyderabad shall be considered as the location of site for this project
- 7. Vendor has to ensure the Purchase & Installation of Software, Database, Webserver, Firewall, Secure HTTP etc. along with development of mobile application as per guidelines issued by Application stores i.e., Google play, Apple App. Store etc.
- 8. Vendor to Structure as per any 3 Tier architecture landscape comprising of Development Server, Testing Server & Production Server. The servers (Physical and cloud) will be hired by BGL.
- 9. Vendor has to ensure coordination with cloud service provider, licenser of the software/data base used for the software system for smooth functioning of the same during the period of contract. Bidder must host BGL solution in India, outside of Indian territory will not be acceptable.
- 10. Vendor shall finalize estimating transaction volume, disaster recovery, fail safe measures and for scheduled database backup or any other requirements, after discussion from BGL' authorized representative.
- 11. The Software Solution must be dynamic, database driven having admin and client modules.
- 12. The software must have screens for writing the query and getting instant results on their Mobile Phone/Computers. Query should be stored in the database and, can be retrieved in excel, word and pdf format.
- 13. Image captured by the software should have different resolutions sets having Zoom in and out features.
- 14. There shall not be any option of uploading any image from phone gallery or any other



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folder in case of Mobile App.

- 15. Vendor shall agree to the enhancement in software solution, and deliver the same, in case of any change in process /feature (addition, deletion, alteration) is required by BGL.
- 16. Vendor shall submit the project plan in a defined time frame.
- 17. Vendor has to appoint at least 1 dedicated Project manager to perform Project Management & coordination along with review & share the status to with BGL.
- 18. Integration with existing software of BGL for getting pending tasks & real time update in replica system will be required in the software solution as it is. However there has to be some more validations and conditions to be implemented. The solution must have an option to save the data in Application (Offline Mode) and synchronize the data later in bulk.
- 19. Vendor must ensure an expertise for integration with any 3rd party application.
- 20. The mobile app needs to check for the updates if any and alert the user to download the latest version.
- 21. The developed mobile application should support all the latest OS versions.
- 22. The applications must be developed for ANDROID only except IOS platform also for Consumer services.
- 23. Any license/financial implication for registering the application on APP Store lie with the vendor only. BGL will not pay any additional charges which are not mentioned in SOR.
- 24. There must be a feature of pushing the notification to the Users of Mobile Application.
- 25. The application must be able to integrate with Email & SMS APIs.
- 26. The mobile applications should work in all networks irrespective of mobile device make and model.
- 27. User should be able to download the correct version of mobile application supported by his/her mobile device.
- 28. Mobile Application structure should be resolution & platform independent.
- 29. All icons must be crisp, clean, and distinguishable and should be as per guidelines of respective mobile application platform.
- 30. All buttons and objects must be reactive to touch and work as intended.
- 31. All functions must stay within the mobile platform boundaries.
- 32. The graphics, widgets and colors used in the app should be best in class.
- 33. The design and development of the mobile application should be scalable to handle increasing number of users.
- 34. Only Open-source software's/tools need to be used.
- 35. In mobile application development, the best practice and standard procedures are to be used by the Vendor.
- 36. The design and development on the software solution (both mobile app. And web based) should be optimal and give high performance, satisfactory response time even during slow internet connectivity and on different devices.
- 37. The software solution (both mobile app. And web based) need to integrate and interoperate with various other external entities, therefore, the app should easily and in a relatively seamless manner integrate with external entities.
- 38. The software solution (both mobile app. And web based) should have the ability to manage



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various services and systems effectively with its minimum to zero impact on other services

- 39. The mobile application installed in the smart phones should be able to access the device database securely
- 40. The software solution (both mobile app. And web based) should have the ability to upgrade services / add new services and mode to access these services effectively in a cost-effective manner without affecting other services with a commitment for backward compatibility as per the policy guidelines of that mobile platform.

BGL Dependencies:

Vendor has to ensure that all the prerequisites viz. coordination with BGL representatives, documentation, reports, database, functional, technical details etc. or any other information what server necessary for development of entire software solution & for the development of mobile application be fetched and collected from BGL well in time. The same shall not constitute for delay in delivery of mobile & web applications.

1.2 <u>Timelines, Deliverables & Payment Schedule</u>

Contractor is expected to follow the schedule as mentioned below. This schedule shall be applicable for each application in scope of the project. Payments shall be released only on satisfactory acceptance of the modules for each Task as per the schedule.

- i) 25 weeks from the date of LOI/ Kick-off Meeting: for Application development, Testing, Deployment upto GO-Live of the project (both Phase I & Phase II),
 - Phase -1 to complete in 16 weeks from LOI/Kickoff date &
 - Phase-2 to complete in 25 weeks from LOI/Kickoff date.
- ii) Warranty period : 1 year to be covered after the Go-live of Phase -I & Phase -II separately

Further, An optional item is added in SOR and informed by USER dept- CRM that, the AMC for post warranty period may be kept as optional items for One year (for Phase 1 & Phase -2) may be included. However, the item is not under evaluation.

1.3 Payment Terms

The payment milestones SOR item wise and Notations are used in the payment schedule should be interpreted as follows:

- a) SOR Sl. No1(i) 10% of Sl. No.1 and Sl. No 2 of SOR on signoff of System Requirement Specifications (SRS) & System Design Documents (SDD)
- b) SOR Sl. No1(ii) 20% of Sl. No.1 and Sl. No 2 on sign of of testing of app.



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- c) SOR Sl. No1(iii) Balance 70% payment of Application after two months of Go-live
- d) SOR Sl. No 3 to be paid in similar terms of SOR Sl. No-1.
- e) SOR Sl. No 4 to be paid monthly after execution of services and after declaration of GOLIVE in writing and accepted by both parties &certified by EIC/OIC.
- f) SOR Sl. No 5 & 6 on monthly basis after the receipt of invoice and certification from EIC.

1.4 Price Reduction Schedule (PRS)

Maximum PRS for all the delays combined shall be limited to maximum of 5% of total contract price as per the GCC. Penalties as mentioned in Scope of Work.

1.5 Contract Performance Security:

The Contractor shall furnish to the Employer, within 30 days from the date of notification (FOI, LOI, LOA, WO) of award, a security of 10% of annualized Order/Contract Value excl. of taxes & duties.

Contract Performance Security which will be valid for 90 days beyond the guarantee/ Warranty period including the Management & Hoisting application service period. Further, GCC clause 2.13 of Contract Performance Security shall be followed.

The Contract performance Security shall be released after completion of defect liability period and issuance of completion certificate by Officer-In- Charge (IT).

1.6 Defect Liability Perid / Guarantee / Warrantee Period:

The Service Provider unless otherwise specified elsewhere in the tender document shall guarantee the installation/Service for a period of 12 months from the date of completion of Service mentioned in the Completion Certificate issued by the EIC. Further, GCC clause no. 3.5.

1.7 CONFIDENTIALITY:

The CONTRACTOR shall not communicate or use in advertising, publicity, sales releases or in any other medium, photographs, or other reproduction of the work/services under this CONTRACT or description of the site dimensions, quantity, quality or other information, concerning the work/services unless prior written permission has been obtained from the EMPLOYER



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SECTION-9 SCHEDULE OF RATES (SOR)



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REFER E-TENDER NO.: <u>BGL/576/2023-24</u> IN E-TENDERING WEBSITE /PORTAL -

(https://petroleum.euniwizarde.com/) FOR SCHEDULE OF RATES



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Bhagyanagar Gas Limited SCHEDULE OF RATES (SOR)

Financial Bid / Priced Bid

Bid Document ref: BGL/XXX/2023-24, dtd. XX.5.2023

Item: Procurement and Implementation of ERP System Software for PNG with replace of Existing Software (M/s Bynry).

			Name (of Bidder:						
Sr. No.	Description	HSN/ SAC Code	UOM	Quantity	Unit rate incl of all taxes & duties excl. GST (Rs) (figures)	Unit rate incl of all taxes & duties excl. GST (Rs) (words)	GST (%)	GST (Rs.)	Total Amount incl. of all taxes & duties (Rs) (figures)	Total Amount incl. of alltaxes & duties (Rs) (words)
1	2	3	4	5	6	7	8	9 =(8X6)	10 =(6+9)	11 =(6+9)
i i	Application [Phase I] One time Configuring application Development		Lumpsum	1						



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iii	Testing					
iv	Deployment					
v	Training & Hand Holding					
vi	Documentation					
vii	One Year Warranty					
viii	SSL Certificate for two year	Nos	2			
2.	Mobile applications (LMC, Meter Reading, Collection, Spot Billing) which can be deployed on any number of mobiles.	Lumpsum	1			
3.	Application Phase – II [Development, Testing, Deployment, Training & Hand Holding and Documentation], inclusive of one year warranty from date of Go-Live	Lumpsum	1			
4.	Management and Hosting of the application	Monthly	24			



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		1	Dia Docu	inche no.	BGD/ G1	0,2020	41			
5	Per diem cost of consultant in the event of any change requested by BGL which exceeds 5 man-days for a period of two years.		Days	50 (for period of 2 years)						
	GRAND TOTAL INCL. OF ALL TAXES & DUTIES AND GST , Rs.									
	OPTIONAL SOR items:									
6	Maintenance contract for 1 year, post warranty [Phase I]		Monthly	12						
7	Maintenance contract for									

12

Monthly

1 year, post warranty

[Phase II]