

BID DOCUMENT

TENDER NO. AGCL/PL/APR/PESO/13/2021/30

Dated 14/09/2021

"HIRING SERVICES FOR PREPARATION OF ENGINEERING DRAWING AND TECHNICAL DOCUMENTS FOR PESO APPROVAL/ LICENCE OF AGCL'S EXISTING OLD MS PIPELINES"

OPEN COMPETITIVE BIDDING BASIS

ISSUED BY:





1.	Invitation	for Bid: -
-----------	------------	------------

To,	
Dear Sir/Madam,	

Assam Gas Company Limited (AGCL), a Govt. of Assam undertaking, invites e-bids from the technically competent and financially sound bidders for the following jobs and as per the terms and conditions mentioned below:

- Name of Work: HIRING SERVICES FOR PREPARATION OF ENGINEERING DRAWING AND TECHNICAL DOCUMENTS FOR PESO APPROVAL/ LICENCE OF AGCL'S EXISTING OLD MS PIPELINES.
- Type of Bid: Open competitive bidding basis through the e-tendering portal of Govt. of Assam, https://assamtenders.gov.in/.
- Bidding Type: Two Bid System.
- ❖ Pre Bid Meeting Date & Time: 27/09/2021 at 10.00 hrs (IST) at AGCL H.O., Duliajan.
- Closing of Bid Submission Date & Time: 06/10/2021 at 14-00 hrs.(IST).
- ❖ Bid Opening Date & Time: 06/10/2021 at 14.30 Hrs. (IST).
- Validity: 3 (Three) Months from the date of Tender Opening.
- Contact Person: Pranjyoti Dutta, Chief Manager (M), Ph No.: 9435039847.

AGCL has an extensive network of about 637 Km MS pipeline network in the Upper Assam region most of which are more than twenty (20) years old (Refer the details of the pipelines at **Annexure-A**). AGCL intends to obtain PESO approval/licence for these pipelines. As the pipelines were constructed long back, various documents required for application process to PESO such as Design Data, Detail Feasibility Report, As-built drawings, Alignment Sheet, etc. are not available. In addition, some documents like Route map, Schematic diagrams, Layout diagrams, P&ID diagrams, crossing drawings, etc. are available but are not in the approved format of PESO.

AGCL intends to engage a design, drawing and engineering company having experience in similar Oil/Gas sector projects to prepare all such technical documents and engineering drawings by reverse engineering of the existing and available data and in the prescribed format for PESO approval process.

AGCL has appointed a separate agency for processing the application and obtaining PESO approval /licence for the above pipelines. The party appointed for preparation of the engineering drawings and technical documents shall work in close coordination and as per the guidance of the above agency.



It may be required to modify the engineering drawings and documents for several times until they are finally accepted by PESO.

AGCL now invites most competitive bids from the experienced parties for the above works and as per the enclosed **Annexure-B** (Schedule of Rates).

2. Bidder's Qualification Criteria (BQC): -

2.1 Technical: -

SL NO	TECHNICAL CRITERIA	DOCUMENTARY EVIDENCE TO BE SUBMITTED
1.	The Bidder must have experience of carrying out design and engineering work for cross country oil/gas pipelines or have experienced manpower for such type of works.	Work Orders, Work Completion Certificates, Work in hand at present, etc.
2.	The bidder must have successfully completed / presently working on atleast 1 (one) no. of similar type of works as mentioned in Scope of Work (Clause-4.0) of the tender document or Engineering Consultancy services or PESO Approval Consultancy services for new/ existing natural gas/crude oil pipelines during last seven years and the period shall be reckoned from the scheduled date of Technical bid opening.	Work Orders, Work Completion Certificates, Invoice/Payment receipt, etc.

2.2 Financial: -

(a) Net Worth of the Bidder should be positive for the last three financial years i.e. FY 2018-19, FY 2019-20, FY 2020-21 as per Audited Accounts. Bidders will submit scan copies of their audited accounts statement/ certification from Chartered or Cost Accountant firm indicating the code/membership number for the last three financial years along with the technical bid.

2.3 Other Requirements: -

- (a) Bidder shall not have been put on holiday list/ black-listed by AGCL or other State/ Central PSUs. Bidder shall submit self declaration certificate in this regard as per FORM F-1 enclosed in the tender document.
- (b) Bidder shall not be under liquidation, court receivership or similar proceedings. Bidder shall submit self declaration certificate in this regard as per **FORM F-1** enclosed in the tender document.
- (c) Bidders shall fill up their basic details as per the enclosed **FORM F-2** and submit along with the technical bid.

3. TIME OF COMPLETION:-

The entire works should be completed within **Three (3) months** from the date of issue of Work Order/LOI. The work is urgent in nature and no time extension may be granted except for "force majeure" condition.



4. Scope of Work:-

The scope of work must include the following but not limited to:

inch, kg/cm² can be shown inside bracket.

- (a) Preparation of Detailed feasibility report, Project description of existing old MS pipelines by reverse engineering of existing data.
- (b) Preparation of Schematic diagram of overground pipeline facilities like tap off/ dispatch station, sectionalizing valves point, intermediate pigging stations, receipt station, metering station, compressor station, etc. The drawing shall clearly indicate precise site details like survey number, name of revenue village/talluka, district and state etc. of these stations.
- (c) Preparation of Route Map and Profile Map in color in state political / Topographic Map showing route of the pipelines passing through various village/towns of districts of Assam. Existing Pipelines shall be shown in different colors (except red, green and yellow). Route Maps shall also indicate Chainage, overground pipeline facilities.
 Note: -Dimensions of the pipeline in metric system indicating its length, diameter and wall thickness should be shown in the drawings. (Corresponding figure in inches can be shown inside the bracket). Dimension of the pipeline and pressure readings to be shown in metric system and corresponding dimensions/ pressure readings in
- (d) Preparation of summary list of crossings in entire pipeline network with crossing length, type of crossings, method of Crossing, etc., Preparation of Typical crossing drawings for roads, railway Lines, canal/water reservoirs, HDD crossing, etc.
- (e) Preparation of layout diagram of originating, intermediate & terminating stations of the pipelines.
- (f) Preparation of P&ID drawings of originating, intermediate and terminating stations.
- (g) Generation of Alignment sheets for all pipelines based on GIS survey data provided by AGCL.
- (h) Preparation of Design Basis document, indicating code calculations of minimum wall thickness considering design pressure including surge pressure justifying selection of pipe chosen adding corrosion allowance etc. based on data provided by AGCL.
- (i) Preparation of technical document describing the method of protection against corrosion with full details as per data provided by AGCL.
- (j) Preparation of Hydrostatic test report for 24 hours hold pressure and temperature chart in color as per the data provided by AGCL, Air volume calculation for Hydrostatic test evaluation acceptance test of each section is also to be prepared, Summary sheet of pipeline sections indicating chainage in Km & decimal place up to minimum of 3 digits to be mentioned against each section subjected to hydrostatic test. Preparation of 50 %, 75 % thermal stabilization calculations and readings. Preparation of De-pressurization report & chart in color.
- (k) Preparation of SOP's and questionnaire for the pipelines along with internal audit report as per the data provided by AGCL.
- (I) Preparation of any other peripheral drawings or documents if required for applying to PESO.



- Note: (i) All these drawings and documents are to be prepared in the PESO prescribed format only. All required data & documents of the pipelines may not be available with AGCL. The party may be required to carry out the necessary survey for any missing data if required.
 - (ii) Prior to submission of the bid, the bidders are advised to get themselves acquainted with the various drawings and documents required by PESO for approval of existing old gas pipelines. It is the bidder's responsibility to collect all the required information for estimating the volume of work and prepare the bid accordingly.

5. Tender Fees and Earnest Money Deposit (EMD): -

5.1 Tender Fees (non-refundable): - **Rs. 1,000.00 (Rupees One Thousand only)**, including GST.

Earnest Money Deposit (EMD): - Rs. 50,000.00 (Rupees Fifty Thousand only).

5.2 Tender fees and EMD shall be paid online in the following bank account of AGCL: -

Beneficiary Name	Assam Gas Company Limited		
A/c No.	10494832011		
Bank Name	State Bank of India, Duliajan Branch		
IFSC Code	SBIN0002053		

- 5.3 Method of paying online Tender Fees and EMD:
 - Option (a): Internet banking through State Bank of India (SBI) or any other Banks listed at State Bank Multi Option Payment System (SBMOPS) on http://assamtenders.gov.in
 - Option (b): In case of non-availability of net banking facility, bidders may submit tender processing fee/EMD using NEFT/ RTGS option from any bank against system generated prefilled challan.

Bidders may refer the website http://assamtenders.gov.in for detail procedures regarding online payment of Tender Processing Fees and EMD.

The parties having MSME certificate for the relevant job only may be exempted from submission of EMD. However, tender fees must be paid.

5.4 Bids received without Tender Fee and EMD (except the exemptions) shall be rejected straight away.

EMD amount of all the bidders shall be kept reserved until the signing of the agreement between AGCL and successful bidders.

Within 10 days from the date of intimation, the successful bidders will have to furnish a **Performance Bank Guarantee (PBG)** for an amount of 10% of the work value and sign the agreement with AGCL. The bank guarantee shall be valid for a period of 1 (One) years from date of issue of LOI/Work order and extendable for another 1 (One) year.

After furnishing of performance bank guarantee and signing of agreement by the successful bidder, the EMD of all the bidders (including the successful one) shall be released.

6. Bid Submission Procedure: -



- 6.1 Bids must be submitted in two parts and online in the e-procurement portal of Govt. of Assam, https://assamtenders.gov.in/ only.
- 6.2 The bids shall be submitted in two parts as mentioned below:-

Part-A: Techno-Commercial Bid

Techno-Commercial bid shall consist of Scan copy of Un-priced bid document duly signed in each page by the authorized signatory of the bidder, scanned documents in support of BQC, online receipt copy of EMD and Tender Fee, Signed copy of Form F-1, duly filled up Form F-2, Experience Certificates, P.F. Registration, GST Registration, PAN Card, and other related documents pertinent to such jobs etc (All papers must be valid/up to date on the day of submission of tender).

After uploading the documents in the e-procurement portal, one set of copies of the same shall be submitted to AGCL for verification.

Part-B: Priced Bid

Bidders shall duly fill up the Schedule of Rates (SOR) in the given format (as per the guidelines in **Annexure-B**) only.

- 6.3 Bid received in hard copy or E-mail/ Fax/ Telegram/ Telex/ Cable etc will not be accepted.
- 6.4 Misleading and submission of false documents may result in disqualification of the bidders.
- 6.5 The term of contract will be effective from the date of signing of the agreement between AGCL and successful bidders.
- 6.6 The company reserves the right to accept or reject any or all bids or accept any bid in part without assigning any reason whatsoever.
- 6.7 The addendum/corrigendum(s) to the bid document, if any, will be made available at the e-procurement portal https://assamtenders.gov.in/.
- 6.8 No request for extension of Bid closing date & time will be entertained. However, AGCL at its sole discretion may extend the Bid closing date and /or time due to any reasons. In case bid closing date is extended, same will be notified through Corrigendum in the e- procurement system.

7. Payment Terms: -

- 7.1 The entire pipeline network of AGCL as mentioned above are grouped into three categories, i.e. Dedicated Pipelines, Common Carrier Pipelines and City Gas Distribution (CGD) Pipelines for convenience of application to PESO. Accordingly, Company will make payment to the Contractor as follows:-
 - (A) For Dedicated Pipelines:-
 - (a) 20% on submission of draft drawings and documents to AGCL and accepted by AGCL appointed PESO Consultant and AGCL,
 - (b) 20% on submission of the final/corrected drawings and documents to PESO,
 - (c) 20% on provisional acceptance of the drawings and documents by PESO,
 - (d) 40% on obtaining the final PESO Licence/Approval and Contract Closure.
 - (B) For Common Carrier Pipelines:-
 - (a) 20% on submission of draft drawings and documents to AGCL and accepted by AGCL appointed PESO Consultant and AGCL,



- (b) 20% on submission of the final/corrected drawings and documents to PESO,
- (c) 20% on provisional acceptance of the drawings and documents by PESO,
- (d) 40% on obtaining the final PESO Licence/Approval and Contract Closure.
- (C) For City Gas Distribution Pipelines:-
- (a) 20% on submission of draft drawings and documents to AGCL and accepted by AGCL appointed PESO Consultant and AGCL,
- (b) 20% on submission of the final/corrected drawings and documents to PESO,
- (c) 20% on provisional acceptance of the drawings and documents by PESO,
- (d) 40% on obtaining the final PESO Licence/Approval and Contract Closure.
- 7.2 It may be noted that at each of the above document/ drawing submission stage, acceptance of the AGCL appointed PESO Licence/ Approval Consultant shall be required prior to acceptance of the same by AGCL.
- 7.3 In case any peripheral drawing/document, in addition to those mentioned in the scope of work, is required to be prepared based on the requirement of PESO, the Contractor will be required to prepare them at no extra cost.
- 7.3 It may be required to modify the engineering drawings and documents for several times until they are finally accepted by PESO. No additional payments shall be made for such modifications/additions in the drawings.
- 7.4 Bills shall be technically correct in all respects and shall be raised in triplicate along with the acceptance certificate of the work by the Company's Engineer-in-Charge. Bills should also be accompanied by the PF payment receipt to the Contractor's personnel in accordance with the EPF Act 1952.
- 7.5 Any release of payment by the Company to Contractor shall not relieve the latter from any of its obligations under this contract, whatsoever.
- 7.6 GST shall be paid extra as applicable and will be paid against submission of proper Tax invoice.

8. <u>Details of Bid Document</u>: -

1.	Tender No.	Tender No. AGCL/PL/APR/PESO/13/2021/30 dated 14-09-2021.				
2.	Description of Work	HIRING SERVICES FOR PREPARATION OF ENGINEERING DRAWING AND TECHNICAL DOCUMENTS FOR PESO APPROVAL/ LICENCE OF AGCL'S EXISTING OLD MS PIPELINES				
3.	Type of Tender	Two Bid System				
4.	Tender Processing Fee	Rs. 1,000.00 (Rupees One Thousand only)				
5.	Bid Security Amount	Rs. 50,000.00 (Rupees Fifty Thousand Only)				
6.	Last Date of Receipt of Pre-Bid Queries	24/09/2021 at 10-00 hrs (IST)				
7.	Pre-Bid Conference Date	27/09/2021 at 10.00 hrs (IST)				
8.	Bid Closing Date & Time	06/10/2021 at 14-00 hrs (IST).				



10.	Technical Bid Opening Date & Time	06/10/2021 at 14.30 Hrs. (IST).				
11.	Price Bid Opening Date & Time	Will be intimated to eligible bidders nearer the time.				
12.	Period of Contract	Three (3) months from the date of issue of LOI/Work Order and further extendable for another Three (3) months based on AGO discretion.				
13.	Bid Validity	3 (Three) Months from the date of Tender Opening.				
14.	Bid Security Validity	3 months from date of Tender Opening.				
15.	Amount of Performance Bank Guarantee	10% of Work Order Value.				
16.	Validity of Performance Security	Shall be initially valid for a period of 1 (One) years from date of issue of LOI/Work Order and further extendable for another 1 year.				
17.	Mobilization Time	Within 1 week from the date of issue of LOI/work order.				
18.	Time of completion of work	Three (3) months from the date of issue of LOI/Work Order.				
19.	Quantum of Liquidated Damage	0.5% of total contract cost for Default in Timely Mobilization and/or default in timely completion of work for delay per week or part thereof subject to maximum of 5%.				
20.	Bid Submission Mode	Online only through the e-procurement portal https://assamtenders.gov.in/ .				
21.	Venue of Pre-Bid Conference	Conference Hall Assam Gas Company Ltd. Duliajan - 786602 District – Dibrugarh, Assam, India.				
22.	Contact Person	P.J. Dutta, Chief Manager (M) Email: duttapj@hotmail.com arnabsaikia1993@gmail.com Mobile No.: 9435039847				

9. General Conditions of Contract: -

- 9.1 The party engaged for preparation of engineering drawing and documents has to work in close coordination and as per the guidance of AGCL appointed PESO approval consultant.
- 9.2 All technical drawings and documents shall be prepared in accordance with PESO approved format and guidelines.
- 9.3 AGCL will provide all the available existing data, documents, drawings, etc. which are available with the Company, to the engineering drawing contractor. Based on that, the contractor shall prepare the technical drawings and documents as per the guidance of AGCL and AGCL appointed PESO approval/licence consultant. Both the parties shall work in close coordination for timely completion of the work.



- 9.4 The data provided by AGCL as part of this work must be considered as extremely confidential and no such data shall be used by the Engineering drawing/ PESO approval Consultant for any kind of use.
- 9.5 After award of work, the successful party may be required to visit AGCL Head Office, Duliajan for collection of various data. No additional payment shall be made for such visits.

10. Evaluation of Bid and Award Criteria: -

- 10.1 While evaluating the bids, pursuant to Bid Evaluation Criteria as specified, Bidder's past performance in executing similar types of works shall also be assessed for ascertaining the responsiveness of the bid. In such a case, the decision of AGCL shall be final and binding on the bidder.
- 10.2 Bidders should quote for all the items mentioned in the SOR. For award of work, AGCL will consider the overall lowest rate. The decision of AGCL shall be final in this regards.
- 10.3 Considering the time factor and if AGCL management decides, engineering drawing and technical document preparation work may be split up amongst more than one contractor at the L-1 Rate. AGCL's discretion shall be final and binding on the contractor in this regards.

11. Applicability of Law and Jurisdiction: -

The tender shall be governed and interpreted in accordance with the applicable laws of India and Courts of Dibrugarh district in the State of Assam shall have the exclusive jurisdiction.

12. Interpretation: -

In case of any doubt or dispute as to the interpretation of any clause herein contained, the decision of AGCL's management shall be final and binding on the Contractor.

13. Liquidated damages for delay in mobilization and/or completion of works and services: -

In normal case of works/service contracts, liquidated damages will be applicable @ 0.5% of the contract value as per week or part thereof, for delay in contract mobilization/completion date subject to a maximum ceiling of 5% of contract value.

14. Other Terms and Conditions: -

- (1) In case of any dispute, no idle charge will be considered.
- (2) Conditional bids are liable to rejection at the sole discretion of the Company.
- (3) The work may be split up amongst more than one contractor at the sole discretion of the company.
- (4) The Company reserves the right of rejecting any or all bids, or accepting any bid in part, or cancel the bid invitation process without assigning any reason.

Sd/-Managing Director

Enclosures: - Form F-1, F-2, Annexure-A, B.



FORM F-1: DECLARATION

[On Bidder's letter head]	
To, Managing Director, Assam Gas Company Limited,	
Duliajan, Assam – 786602.	
Ref.:- Tender No. AGCL/PL/APR/PESO/13/2021/30 dated 14-09-2021.	
Dear Sir,	
We, (Bidder's name) hereby confirm that we are not under any liquidation, court	receivership or any
other similar proceedings.	
We confirm that we have not been put on holiday list/ black-listed by AGCL, or	other State/Central
PSUs.	
Authorised Signatory with seal.	
Date:	
Place:	



FORM F-2

(BIDDER'S GENERAL INFORMATION)

To,

The Managing Director, Assam Gas Company Limited, Duliajan, Assam – 786602.

Sl. No.	Details	Submitted by Bidder
1	Bidder's Name	
2	Number of Years in Operation	
3	Address of Registered Office	City/ State/ Country/ PIN/ZIP
	Operation Address if different from	
4	above	City/ State/ Country/ PIN/ZIP
	Phone Number	(Country Code) (Area Code) (Telephone
5		Number)
6	E-mail address	
7	Type of Business	
8	Banker's Name & Branch	
9	Branch Code	
10	Bank account number	
11	PAN No.:	
12	GST No.:	

Note: -

- 1. To be filled up and submitted on Bidder's letter head along with technical bid.
- 2. Supporting documents (scanned copies) to be submitted.

Seal and Signature of Bidder



Annexure-A

		DETA	ILS OF AGCL's TRUNK PIPE	LINES F	OR PES	O APPROVAL/LIC	ENCE
SI. No.		J	Name of the Pipelines	Dia (mm)	Length (Km.)	Total No. Overground Stations (Origin Station, Terminal Station, Intermediate Pigging Station, Sectional Valve Point, Tap Off Point, Metering Terminal, etc)	Total No. of Crossings (Road Crossing Railway Crossing, River Crossing, etc)
1	DE	DICAT	ED PIPELINES				
	1.1	BVFCL	dedicated pipeline (HP)				
		1.1.1	LPG off take Point to AGCL Compressor Station	500 mm	0.965	2	13
	1.2	1.1.2	AGCL Compressor Station to BVFCL pipeline dedicated pipeline (LP)	400 mm	23.801	7	
	1.2	1.2.1	LPG off take Point to AGCL Chalakatoki Village	500 mm	1.418	3	
		1.2.2	Chalakatoki Village to BVFCL pipeline	400 mm	24.475	6	13
	1.3	NEEP	CO Dedicated Pipeline				
				550 mm	6.314	6	
		1.3.1	Kathalguri to NEEPCO Pipeline	500 mm	0.640	5	2
				400 mm	0.486	2	
	1.4	1.4.1	AGCL Compressor Station to Namrup	350 mm	24.178	11	9
		1.4.2	NTPS to APL Pipeline	100 mm	0.233		
	1.5		Dedicated Pipeline	200	24 402		
		1.5.1	Wilton (Tengakhat) to Madhabpur Pipeline	300 mm	21.483	10	5
2	COI	ммо	N CARRIER PIPELINES				
	2.1	Heade	er Pipeline				
		2.1.1	OIL LPG off take Point to AGCL Compressor Station Pipeline	800 mm	1.012	3	3
	2.2		an to Lakwa Pipeline AGCL Compressor Station to	350 mm	24.550	10	15
		2.2.1	Namrup pipeline (Old LP) Namrup to Lakwa Pipeline	400 mm	58.221	31	17
	2.3	Duliaj	an to Namrup Pipeline AGCL Compressor Station to NTPS	500 mm	23.302	6	13
		2.3.1	Pipeline	300111111	25.502		13
3	CIT	•	DISTRIBUTION PIPELINES				
	3.1		an-Namrup-Moran Pipeline				
	3.1	3.1.1	AGCL Compressor Station to Namrup Pipeline (OLD HP)	350 mm	25.000	16	14
		3.1.2	Namrup to Moran Pipeline	300 mm	53.631	23	15
	3.2	Bheku	ulajan - Dibrugarh Pipeline				
		3.2.1	Bhekulajan - Sessa - Khanikor Pipeline	200 mm	30.466		
		3.2.2	Khanikor to Jalan Pipeline	150 mm	4.150	35	8
		3.2.3	Sessa to Hazel Bank Pipeline Ghoramara to Rangaliting Pipeline	150 mm	8.744 1.200	-	
	2.2	3.2.4		150 mm	1.200		
	3.3	3.3.1	Tengakhat to Tinsukia Pipeline	200 mm	39.250	28	8
		3.3.2	Tinsukia to Doomdooma Pipeline	150 mm		20	°
	3.4		i - Doomdooma Pipeline	133 11111	10.011	20	
		3.4.1	Kusijan to Beesakopi Pipeline	200 mm 300 mm	22.330 5.114		
		3.4.2	Beesakopi to Bordubi Pipeline	150 mm	7.024	17	12
		3.4.3	Beesakopi to Tipuk Pipeline	150 mm	6.204		
	3.5		i - Margherita Pipeline Digboi Charali to Margherita	150 mm	14.829	11	11
		3.5.1	Pipeline	100 mm	8.235	5	
	3.6	Lakwa	a - Jorhat - Golaghat Pipeline		2.200		
		3.6.1	Lakwa to Golaghat Pipeline	300 mm	116.277	53	43
	3.7		ghat - Uriamghat - Golaghat Pipe				
		3.7.1	Khoraghat to Uriamghat Pipeline	200 mm	11.914	3	8
	2 -	3.7.2	Uriamghat to Golaghat Pipeline	100 mm	44.950	11	7
	3.8		SSA Project Pipeline	150	7 707	2	2
	<u> </u>	3.8.1	Moran 'O' Point to Doomardolong	150 mm	7.707	3	2
			TOTAL	-	636.914	327	218



Annexure-B

SCHEDULE OF RATES FORMAT

Tender No. AGCL/PL/APR/PESO/13/2021/30 dated 14-09-2021.

(To be filled up separately in the prescribed format only)

SI.	Particulars of Work/Service	Unit	Quantity	Unit Rate	Amount
No.				(Rs.)	(Rs.)

Scope of Work:-Preparation of Detailed feasibility report/ Project description of existing MS pipelines by reverse engineering of existing data, Preparation of Schematic diagram of overground pipeline stations (indicating precise site details like survey number, name of revenue village/talluka, district and state etc. of these stations), Preparation of Route Map and Profile Map in color in state political / Topographic Map showing route of the pipelines passing through various village/towns of districts of Assam indicating chainage and overground pipeline stations, Preparation of summary list of crossings of the pipelines with crossing length, type of crossings, method of Crossing, etc., Preparation of crossing drawings for roads, railway Lines, canal/water reservoirs, HDD crossing drawings, etc., Preparation of layout diagram of originating, intermediate & terminating stations of the pipelines, Preparation of P&ID drawings, Generation of Alignment sheets for all pipelines based on GIS survey data, Preparation of Design Basis document, indicating code calculations of minimum wall thickness considering design pressure including surge pressure justifying selection of pipe chosen adding corrosion allowance etc., Preparation of technical document describing the method of protection against corrosion with full details, Preparation of Hydrostatic test report for 24 hours hold pressure and temperature chart in color, Air volume calculation for Hydrostatic test evaluation acceptance test of each section, Summary sheet of pipeline sections indicating chainage in Km & decimal place up to minimum of 3 digits to be mentioned against each section subjected to hydrostatic test, Preparation of 50 %, 75 % thermal stabilization calculations and readings, Preparation of De-pressurization report & chart in color, Preparation of SOP's and questionnaire for the pipelines along with compilation of internal audit report, Preparation of any other peripheral drawings or documents if required for PESO approval.

Note: Some of the details of the pipelines are available with AGCL. The party has to carry out the necessary survey for any missing data if required.

1	DEDICATED PIPELINES (Total length - 103.993 km, Number of pipelines - 10.)	L.S.	1	
2	COMMON CARRIER PIPELINES (Total length - 107.085 km, Number of pipelines - 04.)	L.S.	1	
3	CITY GAS DISTRIBUTION PIPELINES (Total length - 425.836 km, Number of pipelines - 18.)	L.S.	1	
