



मेकॉन लिमिटेड (भारत सरकार का संस्थान) MECON LIMITED (A GOVT. OF INDIA ENTERPRISES)



13वां एवं 15वां तल, नार्थ टॉवर, स्कोप मीनार, लक्ष्मी नगर व्यवसायिक केन्द्र, दिल्ली-110092, (भारत)
13th & 15th Floor, North Tower, Scope Minar, Laxmi Nagar District Center, Delhi-110092, (INDIA)
फोन / Phone : +91-11-2244 7417, CIN : U74140JH1973GOI001199
GSTIN : 07AACCM2119B1Z4 वेबसाइट / Website : <http://meconlimited.co.in>

स्वीकृति का फैक्स / FAX OF ACCEPTANCE (FOA)

FOA NO. 05/51/Q7NT/GAIL/001-ii-11/FOA-959

DATE: 15.07.2023

TO : M/S AVS ENGINEERING
PHONE: +91- 011-47705580, 9911061998
EMAIL: avsengineering16@gmail.com, info@avsengineering.net.in
ATTN : MR. VIKAS KUMAR SINGH, PROPRIETOR
FROM : SR. GM (CONTRACTS), MECON LIMITED, DELHI

PLEASE REFER TO YOUR OFFER NO. NIL DTD. NIL (NIC BID ID: 541922) AND ALL OTHER SUBSEQUENT CORRESPONDENCE AGAINST BIDDING DOCUMENT NO. 05/51/Q7NT/GAIL/001-II-11 DATED 13.03.2023 (TENDER ID: 2023_GAIL_148619) & COMMERCIAL CORRIGENDUM #1 DATED 28.03.2023 FOR ABOVEGROUND GI INSTALLATIONS INCLUDING LAST MILE CONNECTIVITY AT CONSUMER END AT RANCHI GA (1 YEAR ARC) FOR CGD PROJECT AT SIX GAS FOR GAIL (INDIA) LIMITED (.)

WE HEREBY ISSUE THIS FAX OF ACCEPTANCE (FOA) FOR AWARD FOR APPROX. 30% OF SCOPE OF WORK OF TENDER AT AN ESTIMATED CONTRACT VALUE OF RS. 2,17,47,192/- (INDIAN RUPEES TWO CRORE SEVENTEEN LAKHS FORTY-SEVEN THOUSAND ONE HUNDRED NINETY-TWO ONLY) EXCL. GST. GST SHALL BE PAYABLE EXTRA AS PER TENDER PROVISIONS. (PRESENT RATE OF GST@18%). THE DETAILED BREAKUP OF ABOVE ORDER VALUE IS ENCLOSED AS ANNEX-1(.)

THE COMPLETION PERIOD SHALL BE AS PER TENDER DOCUMENT(.)

PLEASE SUBMIT CONTRACT PERFORMANCE BANK GUARANTEE@ 3% OF ANNUALISED CONTRACT/ORDER VALUE [EXCLUDING GST] AS PER CL. NO.38 OF ITB OR AS PER BDS (ANNEXURE-IV TO SECTION-III OF VOL I OF II) AND CONTRACT AGREEMENT AS PER CL. NO.37 OF ITB OF TENDER DOCUMENT (.)

YOU ARE REQUESTED TO CONTACT PROJECT COORDINATOR (MR. PRATEEK MAHESHWARI, MANAGER (CGD), MECON LIMITED, EMAIL ID: pmaheshwari@mecon.co.in) FOR FURTHER INSTRUCTIONS (.)

ALL OTHER TERMS AND CONDITIONS SHALL BE AS PER BIDDING DOCUMENT & CORRIGENDUM THERE OF AS STATED ABOVE AND AS AGREED TILL DATE (.)

A DETAILED ORDER SHALL FOLLOW (.)

FOR & ON BEHALF OF GAIL (INDIA) LIMITED

C By its authorized signatory

राकेश शर्मा / RAKESH SHARMA

वरि, महाप्रबंधक (अनुबंध) / SR. GM (CONTRACTS)
मेकॉन लिमिटेड, दिल्ली / MECON LIMITED, DELHI

CC: BY COURIER TO:

M/s AVS Engineering

Plot No.-98, Flat no. F1/3, Shakti Khand-2, Indirapuram, Ghaziabad-201010

Tel No.: +91- 011-47705580, 9911061998

प्रधान कार्यालय / Head Office :

कार्यालय / Office :

राँची / Ranchi	बेंगलूर / Bangalore	मुम्बई / Mumbai	कोलकाता / Kolkata	चेन्नई / Chennai
+91-651-248 3000 (Phone)	+91-80-2657 1661-63 (Phone)	+91-22-2781 2155-58 (Phone)	+91-33-2282 2381-82 (Phone)	+91-44-2618 4873 (Phone)
+91-651-248 2189/248 2214 (Fax)	+91-80-2625 2000 (Phone)	+91-80-2781 2275 (Fax)	+91-33-2282 4441 (Fax)	+91-44-2618 4874 (Fax)
ranchi@meconlimited.co.in	+91-80-2657 6352 (Fax)	Mumbai@meconlimited.co.in	kolkata@meconlimited.co.in	chennai@meconlimited.co.in
	bangalore@meconlimited.co.in			

Annex I to F.O.A. no. 05/51/Q7NT/GAIL/001-ii-11/F.O.A.-959
 dtd. 15.07.23

SOR: ABOVEGROUND GI INSTALLATIONS INCLUDING LAST MILE CONNECTIVITY AT CONSUMER END AT RANCHI GA (1 YEAR ARC): Tender No.:
 05/51/Q7NT/GAIL/001-ii-11, Tender ID: 2023_GAIL_148619

Sl. No.	Item Description	Item Code	Units	M/s AVS Engineering, Ghaziabad		
				Quantity	Unit Rate (Inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties [if any] payable by the Contractor under the Contract, or for any other cause except final GST) in Rs.
1	2	3	5			
1	PE PIPELINE	A00100				
2	Pipe Laying in any unprepared surface (Katcha surface) / Normal Surface / Hard surface(all type of hard Rock) using Open cut / Moling -(without Casing) methodology.	A00101				
3	Receipt, Loading, unloading, storing, reloading, transportation, unloading, Uncoiling, stringing and laying of PE100, SDR11/17.6 line pipes of all sizes including, proper stacking, identification, and supply of accessories of all sizes & thickness like PE Bends, Saddle, Couplers, Endcaps, Tee(Equal/ Reducing), Reducer, CS / GI to PE Fittings (i.e. Transition Fittings of sizes 20 mm to 32 mm), Warning Mat (300 mm width as per attached Technical specification and QAP), etc. Handling, Stringing / uncoiling, aligning of the PE line pipe on the pipeline Right-of-Use / route ,laying / installation of PE line pipe alongwith required accessories as mentioned above as per specification wherever required depending on site condition including execution of all associated works; Storage of material in contractor's store in safe manner, pre fabrication / fabrication, access for pre fabrication / fabrication area, all procured / supplied materials for construction, consumables, equipments, labour and other inputs.. In the case of free issue items, the scope also includes, receiving and loading from Owner's designated store within GA, transportation, unloading and stacking of free issue items at Contractor's store					
4	Carrying out all temporary, ancillary, auxiliary works required to make the laid PE pipeline system complete and ready for commissioning as per drawings, specifications and /or as per direction of Engineer-in-charge (EIC).					
5	Specifications, scope of work indicated in PJS and other provisions of Contract document and instructions of Engineer-in-charge, including but not limited to carrying out the following works:					
6	Surveying of route and detours required at the time of execution including marking the same in topographical sheet, preparation of construction drawings showing survey details, and submit same to Owner for review / approval.					
7	Carrying out preliminary & final survey activities for crossings encountered in pipeline route and preparation of drawings with crossing methodology etc. wherever required and submission to Owner/Engineer-in-charge for review / approval.					
8	Preparation and getting approval of execution schedules, execution procedures, drawings/ sketches/ wherever required from Owner/Engineer-in-charge and/or from concerned authority, making trial pits to determine the underground utilities/ services etc., restoration of the abandoned trial pits to original condition to entire satisfaction of Owner/Engineer-in-charge and/or concerned authority.					
9	Stacking and installation of construction markers, clearing/grading of work area, fencing, grubbing, cutting of trees, etc within work area and full filling all the requirements of various statutory/ environment authorities to their entire satisfaction.					
10	Barricading the work area as per local authorities guidelines/norms and to the entire satisfaction of Owner/ Engineer -in- charge, installation of safety signs to the satisfaction of Owner/ Engineer -in- charge and / or as per local authorities guidelines/norms.					
11	Barricading the pipeline construction area prior to execution of the works as per drawing no. MEC/23QH/05/25/M/001/011 & MEC/23QH/05/25/M/001/10 enclosed with tender document and to the entire satisfaction of owner / engineer- in -charge.					
12	Laying using open trench without casing/Moling without casing includes survey of under ground utilities (through trial pits), execution of work as per specification including Trenching to all depths by excavation in all types of soils including soft/ rocky strata and different type of pavement / footpath / roads etc. including rock breaking, chiselling or otherwise cutting etc. as required and storing excavated soil, reusable materials at designated area as directed by Engineer in charge and to a width to accommodate the pipeline as per the relevant standard/ specification etc. [The minimum depth of the top of pipeline shall be 1.0 m measured from top of pipeline to the top of undisturbed surface of the soil or as per Specification/ OISD - 226 & PNGRB latest guidelines whichever is higher]. Dewatering of trenches / pits if required as per site condition. Repairing of all damaged utilities if any, and payment of any compensation (if claimed by owner / other utility agencies)					

Sl. No.	Item Description	Item Code	Units	M/s AVS Engineering, Ghaziabad		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties [if any] payable by the Contractor under the Contract, or for any other cause except final GST) in Rs.
13	Uncoiling / stringing & aligning of PE pipes, clamping, jointing of the pipe ends / fittings / valves by qualified personnel using approved electro-fusion techniques as per specification.					
14	Installation / lowering the pipeline in trench to required depth as per PJS, Technical Specification & drawings, supply & placement of HDPE Yellow colour warning mat (300 mm width as per attached Technical specification and QAP) over the pipeline along the complete route as per standard drawings, data sheets & technical specifications, padding around pipeline including supply of suitable padding material duly approved by EIC , backfilling to its original condition with excavated earth / borrowed select soil/sand duly approved by EIC & its compaction & crowning. At certain specific area of ROU, trench shall be backfilled & compacted and shall be made ready for motorable. All tiles/slabs/curb stones etc removed during excavation shall be placed properly and no separate payment shall be admissible against this activity. Restoration shall be carried as per separate SOR item mentioned elsewhere in the SOR or to be done by Owner / concerned authorities.					
15	The scope of work against this item also include Electro-fusion jointing of valves, fittings, saddle etc wherever required and as directed by Engineer-in-charge.					
16	The scope of work against laying of 20/32 mm pipe also includes works like making of PCC pedestal of grade (1:2:4) and size (8" depth X6" length X4" width) which may slightly vary in dimension and volumetric quantities of PCC and may increase up to 25% more as per site requirement., supply and installation of GI Sleeve (Heavy (C-Class) as per IS-1239), supply & filling of sand and installation of TF (along with supply).					
17	Flushing, Pneumatic testing, purging with nitrogen and commissioning as per specification and approved procedures providing all tools and tackles, nitrogen, instruments, manpower and other related accessories and as per the instructions of the Engineer-in-charge.					
18	Final clean-up of right-of-use or area disturbed by contractor during their construction activities for laying of pipeline works and disposal of debris and surplus material to designated disposal areas within GA and backfilling of trench and compaction of the same as per satisfaction of Owner and / or as directed by Engineer-in-charge.					
19	Maintaining the worthiness of the complete pipelines system along with associated facilities till hand over to the OWNER/ EIC and to carry out rectification/ replacement works for any defect or failures reported by OWNER during defect liability period.					
20	Handing over the completed works to Owner for their operation/ use, reconciliation of material area wise and obtaining "no objection certificate" from Owner/ PMC.					
21	Preparation and submission of Daily progress report, Laying Graphs / PE line cards on daily basis and get it reviewed/ inspected by Owner/ Owner representative/ PMC.					
22	On completion of gas charging of pipelines. Preparation and submission of As-built drawings, crossings details, termination, utility graphs and deviation statements.					
23	In case, the minimum required depth is not possible due to site condition, necessary mitigation measures shall be required to be taken by contractor in consultation with EIC as per PNGRB Guidelines. No additional payment shall be admissible against the same.					
24	Submission of all documents required for contract closure as mentioned in the contract document as per guidelines of the Owner/PMC.					
25	Any other activities not mentioned / covered explicitly above, but otherwise required for satisfactory completion / operation / safety / statutory / maintenance of the works shall also be covered under the scope of work and has to be completed by the Contractor within specified time schedule at no extra cost to Owner. All the work shall be executed in accordance with the provision of contract and/or latest guidelines of the statutory authority, whichever is stringent.					
26	20 mm PE 100 pipe by Open Cut Method (Laying of 20mm includes ground connectivity (GC)/Service Line to all the customers enroute). Note: Flushing, Testing, commissioning of 20mm and 32mm shall be done together.	A00102	Meter	450	324.03	145,814
27	20 mm PE 100 pipe by Moiling without casing Method (Laying of 20mm includes ground connectivity/Service Line to all the customers enroute). Note: Flushing, Testing, commissioning of 20mm and 32mm shall be done together.	A00103	Meter	3,600	409.70	1,474,902
28	32 mm PE 100 pipe by Open Cut Method (Laying of 32mm shall accompany service line/GC with 20mm to the customers enroute). Note: Flushing, Testing, commissioning of 32mm and 20mm shall be done together..	A00104	Meter	450	335.21	150,842

Sl. No.	Item Description	Item Code	Units	M/s AVS Engineering, Ghaziabad		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST) in Rs.
29	32 mm PE 100 pipe by Moiling without casing Method (Laying of 32mm shall accompany service line/GC with 20mm to the customers enroute). Note: Flushing, Testing, commissioning of 32mm and 20mm shall be done together.	A00105	Meter	7,200	424.59	3,057,070
30	For laying of 20 mm/32 mm branch PE pipe after taking either online tapping from Gas charged run/ service pipeline of size up to 63 mm or online tapping from positive pressurised [up to 2 bar(g)] condition run/ service pipeline of size up to 63 mm using required size of Saddle: Excavation of all size & depth in all type of under ground soil strata including pebbles, cobbles, gravels, boulders, soft & hard rock etc. to make the pit for installation of Saddle, carrying out installation & fixtng of required size of Saddle, Reducer/ Expander, etc., where run/ service PE pipeline is in charged/Pressurised condition. <i>Installation/ Laying of 20 mm/32 mm PE pipe from Saddle to Transition fittings (CS / GI Pipe to PE Pipe) including supply and installation of GI Sleeve of required sizes (Heavy (C-Class) as per IS-1239), supply & filling of sand, supply & installation of Transition fittings of required sizes (CS / GI Pipe to PE Pipe) including blinding by end cap of pipe near TF shall be carried out as per activity description mentioned above for SOR Item No. A00102, A00103, A00104 & A00105 as applicable and payment shall be made accordingly for these activities. The scope of work against installation/ laying of 20 mm/ 32 mm pipe also includes works like making of PCC pedestal of grade (1:2:4) and size 300mm(Length)X 200mm(Width) X Height (H)), where H>=300mm & will be as per site condition.</i> Note:- 1) The above Item rate is valid for online Tapping including hookup with run/ service/ branch PE Pipeline along with supply of Saddle, Reducer/ Expander, other PE fittings required specifically at tapping point only, when the existing network is already charged/Pressurised condition. Online tapping for Branch/ Service Line/Ground Connectivity to be given to customers shall be paid during connection of Houses (Individual) or Apartment/Society. 2) Flushing, Testing, commissioning of 32mm and 20mm shall be done together or as per instruction of EIC and the payment shall be made as per SOR item rate A00102, A00103, A00104 & A00105 as applicable, mentioned elsewhere in the SOR.	A00106	Nos	300	2,048.48	614,543
31	For laying of 20 mm/32 mm branch PE pipe after taking either online tapping from Gas charged run/ service pipeline of size up to 63 mm or online tapping from positive pressurised [up to 2 bar(g)] condition run/ service pipeline of size up to 63 mm using required size of Equal/ Unequal Tee: Excavation of all size & depth in all type of under ground soil strata including pebbles, cobbles, gravels, boulders, soft & hard rock etc. to make the pit for installation of Equal/ Unequal Tee, carrying out installation & fixtng of required size of Equal/ Unequal Tee, Reducer/ Expander, etc., where run/ service PE pipeline is in charged/Pressurised condition. <i>Installation/ Laying of 20 mm/32 mm PE pipe from Saddle to Transition fittings (CS / GI Pipe to PE Pipe) including supply and installation of GI Sleeve of required sizes (Heavy (C-Class) as per IS-1239), supply & filling of sand, supply & installation of Transition fittings of required sizes (CS / GI Pipe to PE Pipe) including blinding by end cap of pipe near TF shall be carried out as per activity description mentioned above for SOR Item No. A00102, A00103, A00104 & A00105 as applicable and payment shall be made accordingly for these activities. The scope of work against installation/ laying of 20 mm/ 32 mm pipe also includes works like making of PCC pedestal of grade (1:2:4) and size 300mm(Length)X 200mm(Width) X Height (H)), where H>=300mm & will be as per site condition.</i> Note:- 1) The above Item rate is valid for online Tapping including hookup with run/ service/ branch PE Pipeline along with supply of Equal/ Unequal Tee, Reducer/ Expander, other PE fittings required specifically at tapping point only, when the existing network is already charged/Pressurised condition. Online tapping for Branch/ Service Line/Ground Connectivity to be given to customers shall be paid during connection of Houses (Individual) or Apartment/Society. 2) Flushing, Testing, commissioning of 32mm and 20mm shall be done together or as per instruction of EIC and the payment shall be made as per SOR item rate A00102, A00103, A00104 & A00105 as applicable, mentioned elsewhere in the SOR.	A00107	Nos	300	1,973.99	592,196

Sl. No.	Item Description	Item Code	Units	M/s AVS Engineering, Ghaziabad		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST) in Rs.
32	Note: i) The lengths of pipelines are tentative, it may increase or decrease as per site requirement or as per instruction of EIC. ii) For restoration of asphalt / concrete roads, the item for construction of asphalt top / concrete top / red stone / paver/RCC/CC shall be paid separately as per the rates quoted for the same elsewhere in the SOR. iii) The Scope of work will start from tapping saddle/Tee on existing/laid PE pipe of various sizes of existing network to Transition Fitting (PE to GI). The tapping saddle/Tee, Transition Fittings and other fittings shall be included in the measurement under relevant SOR. iv) Bidder has to familiarise themselves the entire locations /region/ charge area within the GA and ascertain all type of eventuality/uncertainty before quoting their bid.					
33	PE pipe laying of sizes 20 mm/ 32 mm inside Private Property i.e Multistorey buildings / apartments with no movement of Heavy Vehicles, surrounded with Boundary wall where pipe top cover could not be achieved 600 mm.	A00200				
34	Minimum pipe top cover of 375 mm is required and the line pressure shall not exceed 110mbar.					
35	Necessary mitigation measures such as RCC slab (150mm thick and 300mm width) at the top, of the RCC slab of the roof of basement shall be treated as bottom. There shall be sand filling across three sides of the line pipe of 100mm each shall be required to be taken by contractor in consultation with EIC as per latest PNGRB Guidelines. No additional payment shall be admissible against the same.					
36	Receipt, Loading, unloading, storing, reloading, transportation, unloading, Uncoiling, stringing and laying of PE100, SDR11/17.6 line pipes of all sizes including, proper stacking, identification, and supply of accessories of all sizes & thickness like PE Bends, Saddle, Couplers, Endcaps, Tee(Equal/ Reducing), Reducer, CS / GI to PE Fittings (i.e. Transition Fittings of sizes 20 mm to 32 mm), Warning Mat (300 mm width as per attached Technical specification and QAP) etc. Handling, Stringing / uncoiling, aligning of the PE line pipe on the pipeline Right-of-Use / route, laying / installation of PE line pipe alongwith required accessories as mentioned above as per specification wherever required depending on site condition including execution of all works; Storage of material in contractor's store, fabrication, access for construction procurement and supply of all materials, consumables, equipments, labour and other inputs. In the case of free issue items, the scope also includes, receiving and loading from Owner's designated store, transportation, unloading and stacking of free issue items at Contractor's store					
37	Carrying out all temporary, ancillary, auxiliary works required to make the PE pipeline ready for commissioning as per drawing.					
38	Surveying of route and detours required at the time of execution, preparation of construction drawings showing survey details, and submit same to Owner for review / approval.					
39	Preparation and getting approval of schedules, execution procedures, drawings/ sketches/ wherever required, making trial pits to determine the underground utilities/ services etc., restoration of the abandoned trial pits to original condition.					
40	Barricading the pipeline construction area prior to execution of the works as per drawing no. MEC/23QH/05/25/M/000/011 & MEC/23QH/05/25/M/000/10 enclosed with tender document and to the entire satisfaction of owner / engineer-in -charge.					
41	Laying using open trench without casing includes survey of under ground utilities (through trial pits), execution of work as per specification including Trenching to all depths by excavation in all types of soils including soft/ rocky strata and different type of pavement / footpath / roads etc. including rock breaking, chiselling or otherwise cutting etc. as required and storing excavated soil, reusable materials at designated area as directed by Engineer in charge and to a width to accommodate the pipeline as per the relevant standard/ specification etc. [The minimum depth of the top of pipeline shall be 1.0 m measured from top of pipeline to the top of undisturbed surface of the soil or as per Specification/ OISD- 226 & PNGRB latest guidelines whichever is higher]. Dewatering of trenches / pits if required as per site condition. Repairing of all damaged utilities if any, and payment of any compensation (if claimed by owner / other utility agencies)					
42	Uncoiling / stringing & aligning of PE pipes, clamping, jointing of the pipe ends / fittings / valves by qualified personnel using approved electro-fusion techniques as per specification.					

Sl. No.	Item Description	Item Code	Units	M/s AVS Engineering, Ghaziabad		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST) in Rs.
43	Installation / lowering the pipeline in trench to required depth, supply & placement of HDPE Yellow colour warning mat (300 mm width as per attached Technical specification and QAP) over the pipeline along the complete route as per standard drawing and backfilling to its original condition with excavated earth / borrowed select soil / sand duly approved by EIC & its compaction & crowning. At certain specific area of ROU, trench shall be backfilled & compacted and shall be made ready for motorable. All tiles / slabs / curb stones etc removed during excavation shall be placed properly and no separate payment shall be admissible against this activity. Restoration shall be carried as per separate SOR item mentioned elsewhere in the SOR or to be done by Owner / concerned authorities.					
44	The scope of work against laying of 20 mm /32 mm pipe also includes works like making of PCC pedestal of grade (1:2:4) and size (300mm(L)X200mm(W) XHeight (H)), (H>=300mm & will be as per site condition)), supply and installation of GI Sleeve (Heavy (C-Class) as per IS-1239), filling of sand and installation of TF (along with supply).					
45	Pneumatic testing, purging with nitrogen and commissioning as per specification and approved procedures providing all tools and tackles, nitrogen, instruments, manpower and other related accessories and as per the instructions of the Engineer-in-charge.					
46	Final clean-up of right-of-use or area disturbed by contractor during their construction activities for laying of pipeline works and disposal of debris and surplus material to designated disposal areas and backfilling of trench and compaction of the same as per satisfaction of Owner and / or as directed by Engineer-in-charge.					
47	Maintaining the completed pipelines and installation for any defect or failures during defect liability period.					
48	Handing over the completed works to Owner for their operation/ use, reconciliation of material area wise and obtaining "no objection certificate" from Owner/ Consultant.					
49	On completion of gas charging of pipelines. Preparation and submission of As-built drawings, crossings details, termination, utility graphs and deviation statements.					
50	Any other activities not mentioned / covered explicitly above, but otherwise required for satisfactory completion / operation / safety / statutory / maintenance of the works shall also be covered under the scope of work and has to be completed by the Contractor within specified schedule at no extra cost to Owner. All the work shall be executed in accordance with the provision of contract.					
51	20 mm PE 100 pipe	A00201	Meter	450	543.78	244,700
52	32 mm PE 100 pipe	A00202	Meter	720	588.47	423,699

Sl. No.	Item Description	Item Code	Units	M/s AVS Engineering, Ghaziabad		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST) in Rs.
54	Civil Work/Cutting/ Breaking and Restoration	A00300				
55	Restoration of the roads, pavements, channels, footpaths, tiles, stones etc. to original condition including supply of the approved quality material required, as per local authorities norms, obtaining NOC from land owners/ third party inspection agencies/Consultant designated by GAIL and to the satisfaction of Engineer-in-charge.					
56	Asphalting	A00301	Meter	23	327.76	7,538
57	Breaking/Cutting of Cement Concrete-Making provision for PE Pipe laying as per site requirement and as per instruction of EIC.	A00302	Meter	300	130.36	39,107
58	Cement Concrete restoration as per scope of work (Excluding Breaking/Cutting)	A00303	Meter	300	916.23	274,868
59	Breaking/Cutting of RCC Core- Making provision for PE Pipe laying as per site requirement and as per instruction of EIC.	A00304	Meter	225	204.85	46,091
60	RCC restoration as per scope of work (Excluding Breaking/Cutting)	A00305	Meter	450	1,117.35	502,808
61	Tiles/ Paver/ Blocks/ Curb Stones, Red sand stone	A00306	Meter	1,650	335.21	553,088
62	Brick Soling/ Stone Soling, etc	A00307	Meter	300	238.37	71,510
63	Providing, hoisting and placing of 75 mm thick precast reinforced cement concrete slab of M-20 grade over pipeline as mechanical protection including the cost of required centering, shuttering, reinforcement complete as per tender drawing and direction of the EIC. Note:- Size (Length x Width) of the precast slab will be decided as per site condition and as per instruction of EIC. Precast slab will be placed in multiple number and various location as per site condition and as per instruction of EIC.	A00308	Cubic Meter	3	10,428.60	31,286
64	Valve Pit Chamber (Brick Masonry) Constructing valve pit chamber in brick masonry with cement mortar 1:4 (1 cement : 4 coarse sand) over 150 mm thick RCC Foundation along with 75 mm thick levelling course in 1:4:8 mix including 16 mm thick plastering with cement mortar 1:3 (1 cement : 3 coarse sand) and PCC pedestal for Valve support (if required) complete as per specification, drawings and direction of EIC. Valve Pit Chamber shall be covered with 150 mm thick RCC top slab of M-25 grade with manhole cover (medium duty) along with frame as per IS 1726. Rate to include cost of all labour, tools, tackles, equipment, hire charges, supply of all materials such as minimum 45 grade cement, reinforcement, CI manhole cover, PVC coated rungs, inserts including excavation and backfilling, masonry works, plastering, etc. with all bye works and sundry works.					
65	Type I : Inside size 1500 mm x 1000 mm and upto 1500 mm deep	A00309	EACH	1	29,796.00	29,796
66	Type II : Inside size 1500 mm x 1000 mm and greater thano 1500 mm deep	A00310	EACH	1	37,245.00	37,245
67	Valve Pit Chamber (RCC) Constructing valve pit chamber in RCC of grade M-25 over 75 mm thick levelling course in 1:4:8 mix including 16 mm thick plastering with cement mortar 1:3 (1 cement : 3 coarse sand) and PCC pedestal for Valve support (if required) complete as per specification, drawings and direction of EIC. Valve Pit Chamber shall be covered with 150 mm thick RCC top slab of M-25 grade with manhole cover (medium duty) along with frame as per IS 1726. Rate to include cost of all labour, tools, tackles, equipment, hire charges, supply of all materials such as minimum 45 grade cement, reinforcement, CI manhole cover, PVC coated rungs, inserts including excavation and backfilling, masonry works, plastering, etc. with all bye works and sundry works.					
68	Type I : Inside size 1500 mm x 1000 mm and upto 1500 mm deep	A00311	EACH	2	55,867.50	111,735
69	Type II : Inside size 1500 mm x 1000 mm and greater thano 1500 mm deep	A00312	EACH	1	70,765.50	70,766
70	Pipe Laying in any unprepared surface (Katcha surface) / Normal Surface / Hard surface(all type of hard Rock) using open cut with casing / Molding with Casing methodology.	A00400				
71	Laying of all PE pipe (PE 100 SDR11), Including supply of HDPE casing pipe, Saddle, Couplers, End caps etc. (As per Particular job specification.)					
72	Survey of under ground utilities, execution of the work as per specification, including excavation of pits moling with the hole size not exceeding 20% of the pipe dia, jointing and insertion of carrier pipe with casing, testing & commissioning and restoration of the pits to original condition, submission of As-Built Graph as per specifications and the instruction of Engineer-in-charge.					
73	20 mm PE 100 pipe (in 50 mm dia. HDPE Casing Pipe) by open cut Method with casing	A00401	Meter	45	502.81	22,626
74	20 mm PE 100 pipe (in 50 mm dia. HDPE Casing Pipe) by Moiling Method with casing	A00402	Meter	45	588.47	26,481
75	32 mm PE 100 pipe (in 75 mm dia. HDPE Casing Pipe)by open cut Method with casing	A00403	Meter	23	551.23	12,678
76	32 mm PE 100 pipe (in 75 mm dia. HDPE Casing Pipe)by Moiling Method with casing	A00404	Meter	23	648.06	14,905

Sl. No.	Item Description	Item Code	Units	M/s AVS Engineering, Ghaziabad		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST) in Rs.
77	Supply of GI/ Concrete Sleeves (wherever required as a Special Case as per instructions of the Engineer-in-charge)	A00500				
78	Supply, installation of sleeve, insertion of pipe, sealing the annular area, firm fixing of Sleeves with concrete mix. Breaking through any obstructions and their subsequent restoration, as per specifications and instructions of the Engineer-in-charge.					
79	GI Sleeves /Concrete Sleeves					
80	2 1/2" NB, 1' Length	A00501	Nos.	4	216.02	864
81	4" NB, 1' Length	A00502	Nos.	4	379.90	1,520
82	2 1/2" NB, 3' Length	A00503	Nos.	2	521.43	1,043
83	4" NB, 3' Length	A00504	Nos.	2	931.13	1,862
84	MS Enamel Coated					
85	4" NB, 3' Length	A00505	Nos.	1	871.53	872
86	Concrete Sleeve (NP-2 Class)					
87	4" NB, 3' Length	A00506	Nos.	1	216.02	216
88	6" NB, 3' Length	A00507	Nos.	1	350.10	350
89	Note:-The decision regarding use of type of sleeves to be used at various locations shall be made by Engineer- In-Charge (EIC) / Owner					
90	Supply of Copper Jumper wire(wherever required to maintain the continuity of Pipeline to be laid)	A00600				
91	Supply, Installation, Jointing using Soldering/Pin Brazing/other technique to connect and Integrate the PE pipeline laid for traceability purpose					
92	1.2 MM Copper Jumper insulated wire(as per TS wherever required)	A00601	Meter	150	119.18	17,878
93	Fabrication & Installation of Markers	A00700				
94	RCC Route Markers					
95	Supply, fabrication and installation of RCC route markers including application of approved color and quality of primer and paint as per the standard drawing, along the route including all associated civil works such as excavation and construction in all types of soils, construction and pedestals and grouting with concrete. These works shall be carried out as per installation methodology approved by EIC based on site requirement.	A00701	Nos.	135	446.94	60,337
96	Steel Pole Markers with Foundation					
97	Supply, fabrication and installation of Steel Pole markers including application of approved color and quality of primer and paint as per the standard drawings including all associated civil works such as excavation and construction in all types of soils, construction and pedestals and grouting with concrete, cleaning, stencil letter cutting of lettering, numbers, direction, etc. These works shall be carried out as per installation methodology approved by EIC based on site requirement.	A00702	Nos.	30	2,487.97	74,639
98	Warning Plate Markers					
99	Supply, fabrication and installation of plate markers including application of approved color and quality of primer and paint, stencil letter cutting of lettering, numbers, direction, etc. as per the standard drawings to be installed near regulator. These works shall be carried out as per installation methodology approved by EIC based on site requirement.	A00703	Nos.	1,350	461.84	623,481
100	Paver Block-Tiles Markers					
101	Supply, fabrication and installation of Paver Block-Tiles markers of standard size as per industry practice along the route on Paver Block/Tiles on foot Path/As per the instruction of EIC including application of approved color and quality of primer and paint, stencil letter cutting of lettering, numbers, direction, etc. Carrying out all associated works for fixing / grouting / anchoring the marker with surface. These works shall be carried out as per installation methodology approved by EIC based on site requirement.	A00704	Nos.	30	432.04	12,961
102	Crossing of Sewage Drains/Nala alongside of Independent houses where drains/Nalas are being encountered adjacent to houses	A00800				
103	The scope of work include supply of Medium duty GI Casing pipes of 2.5 inches, alongwith padding with sand stone and civil works associated for construction of cover slab as per drawing No. MEC/23VV/05/25/M/Bharatpur/Typ/001.	A00801	Nos.	150	2,979.60	446,940
104	PNG Connection to Domestic/ Commercial/ Industrial Consumers	B00100				
105	Installation of Carbon Steel (CS)/ GI Service Pipe	B00101				

Sl. No.	Item Description	Item Code	Units	M/s AVS Engineering, Ghaziabad		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST) in Rs.
106	Supply/Receipt, Loading, unloading, storing, reloading, transportation, unloading at work site and laying of either Owner supplied Powder coated GI pipes or Contractor supplied Powder coated GI pipes & carbon steel pipes of all sizes & thickness including supply of all associated compatible accessories of all sizes & thickness like Elbows, Tees, unions, sockets, reducers, GI plugs, Sleeves etc., installation of GI line (alongwith installation of required accessories as mentioned above) of all sizes & thickness, including fabrication with supply of all materials, consumables, labour and other incidental works. The scope of work also includes installation of Regulators (4/6 bar to 100/21 mbar and/or 100 mbar to 21 mbar) which shall be provided as free issue item. Installation of all sizes of isolation Valves (which are to be procured & supplied by contractor mentioned elsewhere as separate items in the SOR). Carrying out all temporary, ancillary, auxiliary works required to make the GI line complete and ready for commissioning as per drawings specifications. Handling, aligning, fabrication & installation of the GI Pipes in the work area alongwith					
107	Scope of work indicated in PJS and other provisions of Contract document and instructions of Engineer-in-charge, including but not limited to carrying out the following works:					
108	Preparation and getting approval of execution schedules, execution procedures, drawings/ sketches from Owner/Engineer-in-charge and/or from concerned authority.					
109	Finalisation of optimum route with consent of customer, from transition fitting to cooking oven/appliance.					
110	Making temporary but stable platforms/ scaffolding/ rope ladders and all other safety measures including safety belts wherever required.					
111	Installation of GI Pipes, Fittings, including NPT threading, painting as specified.					
112	Drillings of holes through walls (Brick, RCC), Granite, Marble, Glass Cutting with proper heavy duty hammer drill machine tools and tackle, using proper sealant /grout material of colors to match the original replacement of damages during drilling, restoring the area to original condition.					
113	In case of Multistorey building where RCC Slab/Visor/Sunshade/Chhajja restrict riser installation then separate payment for cement concrete/ RCC core-cutting with heavy duty drill machine and their restoration shall be paid under SOR items 2.2(a), 2.2(b), 2.2(c) & 2.2(d) and as per instruction and direction of EIC					
114	Supply & Fixing of approved clamps, Dowell Plugs with screws, grout material, suitable thread sealant i.e. Teflon Tape/ lock tight, drilling of holes through tiles/ wood/ marble/ Granite etc. jointing of PE to above Ground service GI pipes, flushing, pneumatic testing, purging with Nitrogen (including supply of Nitrogen as inert gas by contractor) and commissioning or make ready for commissioning of the complete system as per specification and as per Instruction of EIC.					
115	Touchup Painting/Painting of outer surface of GI pipe of all sizes along with fittings after proper surface finish by one coat of approved primer paint and two coats of approved synthetic enamel paint complete as per specification & direction of EIC. Restoring the wall surface to original condition to the entire satisfaction of EIC and getting NOC from end user/Consumer/ concerned authorities/ Authorised competent person of the Society.					
116	All above activities to be carried out as per specification to the complete satisfaction of consumer & as desired by Engineer-in-charge.					
117	Handing over the completed works to GAIL for operation/ use, reconciliation of material area wise and obtaining "no objection certificate" from GAIL / GAIL Representative at Site/ CPMC.					
118	Any other activity not mentioned/ covered, explicitly above, but otherwise required for satisfactory completion/ safety/ statutory/ maintenance of works shall also be covered under scope of work and has to be completed by contractor within specified schedule time.					
119	½" All floors (Including connectivity from TF to regulator.)- with supply of GI Pipes by Contractor	B00102	Meter	4,500	342.65	1,541,943
120	½" All floors (Including connectivity from TF to regulator.)- with supply of GI Pipes by Owner on Free Issue Basis.	B00103	Meter	15,000	230.92	3,463,785
121	¾" All Floors (Including Installation of Risers)- with supply of GI Pipes by Contractor	B00104	Meter	3,000	368.73	1,106,177
122	¾" All Floors (Including Installation of Risers) with supply of GI Pipes by Owner on Free Issue Basis	B00105	Meter	9,600	230.92	2,216,822

Sl. No.	Item Description	Item Code	Units	M/s AVS Engineering, Ghaziabad		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST) in Rs.
123	1" Dia All Floors ((for Riser Installtions & For Commercial Connections)- with supply of GI Pipes by Contractor (Rates are inclusive of installation by threading, however incase of pipe joining by welding as per direction of EIC, payment for Welding, NDT will be made separately)	B00106	Meter	150	376.17	56,426
124	1" Dia All Floors ((for Riser Installtions & For Commercial Connections)- with supply of GI Pipes by Owner on Free Issue Basis (Rates are inclusive of installation by threading, however incase of pipe joining by welding as per direction of EIC, payment for Welding, NDT will be made separately)	B00107	Meter	90	148.98	13,408
125	Supply & laying/ installation including fabrication of Contractor supplied Carbon steel piping system of all sizes & thickness including fabrication & installation of required compatible isolation ball valves fittings, flanges, gaskets, valves, NRV, Strainer, couplings, etc of all sizes, thickness & ANSI pressure rating including Pressure Gauge (PG) etc. as per instruction of EIC. Supply of all type of manpower, macinaries, materials , consumables, and other incidental works to carry out & complete the works at site as per instruction of EIC. Flushing, Pneumatic testing, purging with nitrogen (including supply of Notrogen as inert gas by contractor) and commissioning or make ready for commissioning as per specification and as per Instruction of EIC. Any other activity not mentioned/ covered, explicitly above, but otherwise required for satisfactory completion/ safety/ statutory/ maintenance of works shall also be covered under scope of work and has to be completed by contractor within specified schedule time. - 1 1/2" (1.5") Dia All Floors (For Commercial Connections)- (Payment for Welding, NDT- Radiography will be made separately mentioned elsewhere in the SOR)	B00108	Meter	30	484.19	14,526
126	Supply, laying/ installation & visual testing including fabrication of Contractor supplied Carbon steel piping system of all sizes & thickness including fabrication, installation & visual testing of required compatible fittings, flanges, gaskets, valves, NRV, Strainer, couplings, etc of all sizes, thickness & ANSI pressure rating including Pressure Gauge (PG) etc. as per instruction of EIC. Supply of all type of manpower, macinaries, materials , consumables, and other incidental works to carry out & complete the works at site as per instruction of EIC. Flushing, Pneumatic testing, purging with nitrogen (including supply of Notrogen as inert gas by contractor) and commissioning or make ready for commissioning as per specification and as per Instruction of EIC. Any other activity not mentioned/ covered, explicitly above, but otherwise required for satisfactory completion/ safety/ statutory/ maintenance of works shall also be covered under scope of work and has to be completed by contractor within specified schedule time. - 2" Dia All Floors (For Commercial & Industrial Connections)- (Payment for Welding, NDT- Radiography will be made separately mentioned elsewhere in the SOR)	B00109	Meter	30	633.17	18,995
127	Carrying out Welding of GI/CS Pipes as per latest applicable code & standard for above SOR items B00106, B00107, B00108 & B00109 as per site requirement and instruction of EIC	B00110	Inch-Dia	225	111.74	25,140
128	Carrying out NDT/Radiography of welded joints of CS/GI Pipes as per latest applicable code & standard for above SOR items B00106, B00107, B00108 & B00109 as per site requirement and instruction of EIC	B00111	Inch-Dia	225	22.35	5,028
129	Supply of Nitrogen as inert gas for preservation at positive pressure and/or other works as per site requirement and instruction of EIC (wherever supply of Nitrogen is not covered under the scope of Bidder mentioned elsewhere in the SOR).	B00112	Cubic Meta	75	111.74	8,380
130	Note:- i) Refer Particular Job Specification for supply items. ii) The quantity measurement shall be from the outlet of the Transition Fitting (TF) upto the Meter. All intermediate CS fittings & valves, GI fittings & valves (excluding Flexible Hose / Anaconda, meter and regulator) shall be considered while measuring length of CS/GI Pipes. iii) Supply of isolation Ball Valves, shall be paid as a separate SOR Item. iv) Supply of CS fittings & Valves for 1 1/2" & 2" CS piping [SOR ITEM B00108 & B00109] shall be paid as a separate SOR Item. v) In case of SOR items B00103, B00105 & B00107 above (under SOR item No.- B00101), owner shall supply Plain or Powder Coated GI Pipes (as free issue) remaining scope of supplies of fittings etc. including all associated works shall be as per item nos.-a, c & e (under SOR item No.- B00101)					
131	Cutting/ Breaking and Restoration	B00200				

Sl. No.	Item Description	Item Code	Units	M/s AVS Engineering, Ghaziabad		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST) in Rs.
132	In case of Multistorey building where RCC Slab/Visor/Sunshade/Chhaja restrict riser installation then separate payment for core-cutting with heavy duty drill machine shall be paid under below SOR item and as per instruction and direction of EIC					
133	Breaking/Cutting of Cement Concrete-Making provision for GI Pipe laying	B00201	Inch	450	5.21	2,346
134	Cement Concrete restoration as per scope of work (Excluding Breaking/Cutting)	B00202	Inch	450	26.07	11,732
135	Breaking/Cutting of RCC Core- Making provision for GI Pipe laying	B00203	Inch	300	7.45	2,235
136	RCC restoration as per scope of work (Excluding Breaking/Cutting)	B00204	Inch	300	33.52	10,056
137	Supply of Valves and fittings for Carrying out connection((For Commercial & Industrial Connections))	B00300				
138	Supply of valves and fittings as per Technical Specification and as directed by EIC					
139	Isolation CS Ball Valve 1 1/2 " (1.5") NB, SWE/FE, ANSI pressure class rating 150# / 800# [as per Piping Material Specification (PMS) & Datasheet]	B00301	Nos.	4	681.58	2,726
140	Isolation CS Ball Valve 2 " NB, BWE/FE, ANSI pressure class rating 150# (as per PMS & Datasheet)	B00302	Nos.	4	908.78	3,635
141	WNRF Flange -1 1/2 " (1.5") NB, (as per PMS)	B00303	Nos.	2	335.21	670
142	WNRF Flange -2" NB, ANSI pressure class rating 150# / 800# (as per PMS)	B00304	Nos.	9	573.57	5,162
143	Elbow -1 1/2 " (1.5") NB, SWE (as per PMS)	B00305	Nos.	9	633.17	5,698
144	Elbow -2" NB, BWE, ANSI pressure class rating 150# (as per PMS)	B00306	Nos.	9	893.88	8,045
145	Tee -Equal -1.5"x1.5"x1.5" NB, SWE, (as per PMS)	B00307	Nos.	5	744.90	3,725
146	Tee -Equal -2"x2"x2" NB, BWE, ANSI pressure class rating 150# (as per PMS)	B00308	Nos.	5	1,117.35	5,587
147	NRV 1.5" NB, SWE/FE, ANSI pressure class rating 150# / 800# (as per PMS & Datasheet)	B00309	Nos.	5	968.37	4,842
148	NRV 2" NB, BWE/FE, ANSI pressure class rating 150# (as per PMS & Datasheet)	B00310	Nos.	5	1,489.80	7,449
149	Strainer 1.5"NB, SWE/FE, (as per PMS & Datasheet)	B00311	Nos.	5	744.90	3,725
150	Strainer 2"NB, BWE/FE, ANSI pressure class rating 150# (as per PMS & Datasheet)	B00312	Nos.	5	1,042.86	5,214
151	SS 304 Spiral wound Gasket 1" NB as per specification/ relevant ASME code.	B00313	Nos.	9	37.25	335
152	SS 304 Spiral wound Gasket 1.5" NB as per specification/ relevant ASME code.	B00314	Nos.	9	48.42	436
153	SS 304 Spiral wound Gasket 2" NB as per specification/ relevant ASME code.	B00315	Nos.	15	67.04	1,006
154	Reducer 2"x1.5" NB, BWE x SWE, as per PMS	B00316	Nos.	5	104.29	521
155	Reducer 1.5"x1" NB, SWE, as per PMS	B00317	Nos.	5	70.77	354
156	Reducer 2"x1" NB, BWE x SWE, as per PMS	B00318	Nos.	5	93.11	466
157	Full coupling of 1.5" NB as per PMS	B00319	Nos.	5	186.23	931
158	Half coupling of 1.5" NB as per PMS	B00320	Nos.	5	111.74	559
159	Full coupling of 1" NB as per PMS	B00321	Nos.	5	134.08	670
160	Half coupling of 1" NB as per PMS	B00322	Nos.	5	67.04	335
161	Stud & Nut for connection of 1.5 " NB SWRF Flanges of ANSI pressure class rating 150# / 800# (as per PMS & relevant code)	B00323	Nos.	26	74.49	1,937
162	Stud & Nut for connection of 2" NB WNRF Flanges of ANSI pressure class rating 150# (as per PMS & relevant code)	B00324	Nos.	53	111.74	5,922
163	Supply of Pressure Gauge for maximum operating pressure 6 bar(g) as per specification of approved make	B00325	Nos.	2	3,724.50	7,449
164	Note:- Before procurement of all above supply items by contractor, quantities to be finalised by contractor and approved by the GAIL/PMC.					
165	Supply, Installation, Testing & Commissioning of Copper Service Pipes	B00400				
166	Supply and installation of copper tubing and installation of Appliance Ball valves as per Technical specification and alongwith associated accessories/fittings including brass fittings at the outlet of the meter and at the entry of appliance valve as per satisfaction and instruction of EIC. The copper tube and fittings shall be procured from approved vendors who have supplied these items for similar application earlier and with prior approved of Owner / PMC.					
167	Copper tube shall be installed from the downstream of meter upto the isolation/ appliance valve before the customers' appliance as per requirement and to the satisfaction of EIC. The Contractor to provide all equipment, tools & tackles and associated material required necessary to execute the work in an efficient manner by cutting, cleaning, flux application, soldering and lacquering. The work includes supply of all tools, tackles and consumables including clamps for fixing the tubes and restoration of the work area to the satisfaction of the customer.					
168	12.0 mm OD x 0.6 mm wall thickness	B00401	Meter	375	394.80	148,049

Sl. No.	Item Description	Item Code	Units	M/s AVS Engineering, Ghaziabad		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST) in Rs.
169	Supply, Installation, Testing & Commissioning of Multi Layer Composite (MLC) Pipes	B00500				
170	Supply and installation of MLC Pipe as per ISO17484-1 latest standard and installation of Appliance Ball valves as per technical specification alongwith associated accessories/fittings including brass fittings at the outlet of the meter and at the entry of appliance valve as per satisfaction and instruction of EIC. The MLC Pipe and fittings shall be procured from approved vendors or from those vendors, who have supplied these items for similar application earlier and with prior approved of Owner / PMC.					
171	MLC Pipe shall be installed from the downstream of meter upto the isolation/ appliance valve before the customer's appliance as per requirement and to the satisfaction of EIC. The Contractor to provide all equipment, tools & tackles and associated material required necessary to execute the work in an efficient manner by cutting, cleaning, Bending, Fixing with clamp etc. The work includes supply of all tools, tackles and consumables including clamps for fixing the MLC pipe and restoration of the work area to the satisfaction of the customer.					
172	16.0 mm OD	B00501	Meter	195	223.47	43,577
173	Note: i) Supply of Appliance Ball Valves shall be paid as a separate SOR Item. ii) SOR item No. B00400 & B00500 shall be carried out including supply of materials, only after getting instruction / approval from EIC.					
174	Installation of Regulator, Meter, Flexible Hose & Conversion of Domestic Appliance:	B00600				
175	Installation & fixing of meters & regulators (100 m bar to 21 m bar, wherever required) with associated inlet connections/ fittings, valves, approved meter brackets and other supports by proper scaffolding/ grouting, Restoration of the work area to its original condition to the entire	B00601	Nos.	3,000	186.23	558,675
176	Conversion of Domestic Appliances Carrying out the complete works starts from outlet of meters which includes installation of GI pipe, Appliance valve etc. & other supports by proper grouting, Restoring the area to original complete as per specification. The work also includes installation and supply of Steel reinforced Flexible Hose as per IS 9573 (with Type as per latest PNGRB guidelines) (Gas tube from end of Isolation Valve upto burner/stove) and conversion of all the burners of the LPG stove (one stove per household) including supply of all types of burner nozzles/jets and associated controls etc.	B00602	Nos.	3,000	223.47	670,410
177	Complete works as per specification for carrying out cleaning and performing minor maintenance, greasing etc. of appliance, testing/ showing performance to the customer, signing of Joint Meter Records (JMR) and issue of guideline / instructing to customer regarding operation & safety norms during use as per specifications. The issued instruction & guideline should be the entire satisfaction of customer.					
178	Supply of Valves for Carrying out connection (For Domestic Connections)	B00700				
179	Supply of Isolation & Appliance Ball Valves as per Technical Specification and as directed by EIC					
180	Isolation Ball Valve 1/2 " max. 6 bar (g)	B00701	Nos.	3,000	230.92	692,757
181	Isolation Ball Valve 3/4 " max. 6 bar (g)	B00702	Nos.	1,500	365.00	547,502
182	Isolation Ball Valve 1 " max. 6 bar (g)	B00703	Nos.	30	454.39	13,632
183	Appliance Ball Valve 1/2 " max. 35 mili Bar (g)	B00704	Nos.	3,000	193.67	581,022
184	Regulator Boxes: Supply & Installation including painting of approved make regulator boxes and installing them firmly by grouting using approved bracket /clamps as per standard drawing & as per specifications and cleaning the area complete to the satisfaction of EIC.	B00800	Nos	4	871.53	3,486
185	Note:- Services of Safety Officer must be provided by the contractor during execution of Works as mentioned in various sub SOR items under SOR items A00100 & B00100 . Safety Officer will report to EIC and liable to follow his instruction time to time during their deputation at work site. The cost of deputation of Safety Officer at works site is included in above sub SOR items rate under SOR items A00100 & B00100 . In case of non deployment of Safety Officer during execution of works at site and/or as per instruction of EIC, penalty will be levied to contractor as per rate/ amount mentioned in Annexure-10 to SCC enclosed with the tender document and the same will be deducted from their RA Bill.					
186	Registration of Domestic PNG Connections	C00100				

Sl. No.	Item Description	Item Code	Units	M/s AVS Engineering, Ghaziabad		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST) in Rs.
187	Assistance in carrying out the work of Domestic PNG registration as per directions/instructions of the Marketing In charge of GAIL (I) Limited / Authorized representative including but not limited to following: 1) Enrolment & Registration of Domestic PNG Customers as per the given target. 2) Collection of filled up form along with Cheque/Demand Draft of Security Deposit amount and documents All other activities as may be required to complete the work in all respect is defined in the Scope of work to be read along with the Special Conditions of Contract and as per instructions of MIC. Carrying out the marketing activities for Domestic PNG connection as detailed in Scope of work, complete in all respects, as per directions/instructions of the Marketing In Charge including but not limited to the following: Distribution of leaflets & FAQ, Installation of banners, to be provided by client, at prime location, Awareness cum Registration Camp, Audio / Visual Presentations, Organizing Road Shows, etc.	C00101	Nos.	900	111.74	100,562
188	Providing the Services of Resources as per site requirement	D00100				
189	Providing the services of Plumber(Manday= 8 Working Hours)	D00101	Manday	3	595.92	1,788
190	Providing the services of Helper(Manday= 8 Working Hours)	D00102	Manday	3	484.19	1,453
191	Providing the Services of Welder(Manday= 8 Working Hours)	D00103	Manday	3	1,303.58	3,911
192	Providing the Services of Electrician(Manday= 8 Working Hours)	D00104	Manday	3	744.90	2,235
193	Providing the Services of Conversion Technician(Manday= 8 Working Hours)	D00105	Manday	3	633.17	1,899
194	Providing the Services of Grinder(Manday= 8 Working Hours)	D00106	Manday	3	860.36	2,581
195	Note for all above SOR Items Nos. A00100 to D00106 :- i) Quantities mentioned against all above SOR items are estimated & tentative and may vary up to any extent as per site condition and/or as per instruction of EIC. ii) If certain documents, drawings, datasheets, specifications etc. are not included in the bid, the same will be made available to the successful bidder. While formulating the bid, bidders are requested to quote such items based on practices followed by the similar nature of industries. However procurement & installation of such items will be done as per site requirement after due approval of EIC. iii) Quantities mentioned against all above SOR items are estimated & tentative and may required to be executed either in Ranchi GA or in Jamshedpur GA or in both the GAs, in any ratio, as per site requirement and/or as per instruction of EIC. In this regard, decision of EIC shall be final and binding to the contractor. Hence, bidder is requested to familiarize themselves with both the GAs mentioned above while formulating their bid.					
	Total Excluding GST					21,747,192
	Total Including GST					25,661,686



मेकॉन लिमिटेड (भारत सरकार का संस्थान)

MECON LIMITED (A GOVT. OF INDIA ENTERPRISES)



13वां एवं 15वां तल, नार्थ टॉवर, स्कोप मीनार, लक्ष्मी नगर व्यवसायिक केन्द्र, दिल्ली-110092, (भारत)
13th & 15th Floor, North Tower, Scope Minar, Laxmi Nagar District Center, Delhi-110092, (INDIA)
फोन / Phone : +91-11-2244 7417, CIN : U74140JH1973GOI001199
GSTIN : 07AACCM2119B1Z4 वेबसाइट / Website : <http://meconlimited.co.in>

स्वीकृति का फैक्स / FAX OF ACCEPTANCE (FOA)

FOA NO. 05/51/Q7NT/GAIL/001-ii-11/FOA-961

DATE: 15.07.2023

TO : M/S DEV AND COMPANY
PHONE: +91- 011-41504119, 9810397698
EMAIL: devandcompany.delhi@gmail.com
ATTN : MR. NEERAJ AGGARWAL, PROPRIETOR
FROM : SR. GM (CONTRACTS), MECON LIMITED, DELHI

PLEASE REFER TO YOUR OFFER NO. NIL DTD. NIL (NIC BID ID: 542007) AND ALL OTHER SUBSEQUENT CORRESPONDENCE AGAINST BIDDING DOCUMENT NO. 05/51/Q7NT/GAIL/001-II-11 DATED 13.03.2023 (TENDER ID: 2023_GAIL_148619) & COMMERCIAL CORRIGENDUM #1 DATED 28.03.2023 FOR ABOVEGROUND GI INSTALLATIONS INCLUDING LAST MILE CONNECTIVITY AT CONSUMER END AT RANCHI GA (1 YEAR ARC) FOR CGD PROJECT AT SIX GAS FOR GAIL (INDIA) LIMITED (.)

WE HEREBY ISSUE THIS FAX OF ACCEPTANCE (FOA) FOR AWARD FOR APPROX. 40% OF SCOPE OF WORK OF TENDER AT AN ESTIMATED CONTRACT VALUE OF RS. 2,89,09,960/- (INDIAN RUPEES TWO CRORE EIGHTY-NINE LAKHS NINE THOUSAND NINE HUNDRED SIXTY ONLY) EXCL. GST. GST SHALL BE PAYABLE EXTRA AS PER TENDER PROVISIONS. (PRESENT RATE OF GST@18%). THE DETAILED BREAKUP OF ABOVE ORDER VALUE IS ENCLOSED AS ANNEX-1(.)

THE COMPLETION PERIOD SHALL BE AS PER TENDER DOCUMENT(.)

PLEASE SUBMIT CONTRACT PERFORMANCE BANK GUARANTEE@ 3% OF ANNUALISED CONTRACT/ORDER VALUE [EXCLUDING GST] AS PER CL. NO.38 OF ITB OR AS PER BDS (ANNEXURE-IV TO SECTION-III OF VOL I OF II) AND CONTRACT AGREEMENT AS PER CL. NO.37 OF ITB OF TENDER DOCUMENT (.)

YOU ARE REQUESTED TO CONTACT PROJECT COORDINATOR (MR. PRATEEK MAHESHWARI, MANAGER (CGD), MECON LIMITED, EMAIL ID: pmaheshwari@mecon.co.in) FOR FURTHER INSTRUCTIONS (.)

ALL OTHER TERMS AND CONDITIONS SHALL BE AS PER BIDDING DOCUMENT & CORRIGENDUM THERE OF AS STATED ABOVE AND AS AGREED TILL DATE (.)

A DETAILED ORDER SHALL FOLLOW (.)

FOR & ON BEHALF OF GAIL (INDIA) LIMITED

(Signature)

राकेश शर्मा / RAKESH SHARMA

वरि. महाप्रबंधक (अनुबंध) / SR. GM (CONTRACTS)

मेकॉन लिमिटेड, दिल्ली / MECON LIMITED, DELHI

(Signature)

CC: BY COURIER TO:

M/s Dev and Company

B-48 Ground Floor, Devli Road, Khanpur, New Delhi- 110062

Tel No.: +91- 011-41504119, 9810397698

प्रधान कार्यालय / Head Office :

कार्यालय / Office :

राँची / Ranchi	बेंगलूरु / Bangalore	मुम्बई / Mumbai	कोलकाता / Kolkata	चेन्नई / Chennai
+91-651-248 3000 (Phone)	+91-80-2657 1661-63 (Phone)	+91-22-2781 2155-58 (Phone)	+91-33-2282 2381-82 (Phone)	+91-44-2618 4873 (Phone)
+91-651-248 2189/248 2214 (Fax)	+91-80-2625 2000 (Phone)	+91-80-2781 2275 (Fax)	+91-33-2282 4441 (Fax)	+91-44-2618 4874 (Fax)
ranchi@meconlimited.co.in	+91-80-2657 6352 (Fax)	Mumbai@meconlimited.co.in	kolkata@meconlimited.co.in	chennai@meconlimited.co.in
	bangalore@meconlimited.co.in			

Sl. No.	Item Description	Item Code	Units	M/s Dev and Company, Delhi		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST) in Rs.
1	2	3	5			
1	PE PIPELINE	A00100				
2	Pipe Laying in any unprepared surface (Katcha surface) / Normal Surface / Hard surface(all type of hard Rock) using Open cut / Moling -(without Casing) methodology.	A00101				
3	Receipt, Loading, unloading, storing, reloading, transportation, unloading, Uncoiling, stringing and laying of PE100, SDR11/17.6 line pipes of all sizes including, proper stacking, identification, and supply of accessories of all sizes & thickness like PE Bends, Saddle, Couplers, Endcaps, Tee(Equal/ Reducing), Reducer, CS / GI to PE Fittings (i.e. Transition Fittings of sizes 20 mm to 32 mm), Warning Mat (300 mm width as per attached Technical specification and QAP), etc. Handling, Stringing / uncoiling, aligning of the PE line pipe on the pipeline Right-of-Use / route, laying / installation of PE line pipe alongwith required accessories as mentioned above as per specification wherever required depending on site condition including execution of all associated works; Storage of material in contractor's store in safe manner, pre fabrication / fabrication, access for pre fabrication / fabrication area, all procured / supplied materials for construction, consumables, equipments, labour and other inputs.. In the case of free issue items, the scope also includes, receiving and loading from Owner's designated store within GA, transportation, unloading and stacking of free issue items at Contractor's store					
4	Carrying out all temporary, ancillary, auxiliary works required to make the laid PE pipeline system complete and ready for commissioning as per drawings, specifications and /or as per direction of Engineer-in-charge (EIC).					
5	Specifications, scope of work indicated in PJS and other provisions of Contract document and instructions of Engineer-in-charge, including but not limited to carrying out the following works:					
6	Surveying of route and detours required at the time of execution including marking the same in topographical sheet, preparation of construction drawings showing survey details, and submit same to Owner for review / approval.					
7	Carrying out preliminary & final survey activities for crossings encountered in pipeline route and preparation of drawings with crossing methodology etc. wherever required and submission to Owner/Engineer-in-charge for review / approval.					
8	Preparation and getting approval of execution schedules, execution procedures, drawings/ sketches/ wherever required from Owner/Engineer-in-charge and/or from concerned authority, making trial pits to determine the underground utilities/ services etc., restoration of the abandoned trial pits to original condition to entire satisfaction of Owner/Engineer-in-charge and/or concerned authority.					
9	Stacking and installation of construction markers, clearing/grading of work area, fencing, grubbing, cutting of trees, etc within work area and full filling all the requirements of various statutory/ environment authorities to their entire satisfaction.					
10	Barricading the work area as per local authorities guidelines/norms and to the entire satisfaction of Owner/ Engineer -in- charge, installation of safety signs to the satisfaction of Owner/ Engineer -in- charge and / or as per local authorities guidelines/norms.					
11	Barricading the pipeline construction area prior to execution of the works as per drawing no. MEC/23QH/05/25/M/001/011 & MEC/23QH/05/25/M/001/10 enclosed with tender document and to the entire satisfaction of owner / engineer- in -charge.					
12	Laying using open trench without casing/Moling without casing includes survey of under ground utilities (through trial pits), execution of work as per specification including Trenching to all depths by excavation in all types of soils including soft/ rocky strata and different type of pavement / footpath / roads etc. including rock breaking, chiselling or otherwise cutting etc. as required and storing excavated soil, reusable materials at designated area as directed by Engineer in charge and to a width to accommodate the pipeline as per the relevant standard/ specification etc. [The minimum depth of the top of pipeline shall be 1.0 m measured from top of pipeline to the top of undisturbed surface of the soil or as per Specification/ OISD - 226 & PNGRB latest guidelines whichever is higher]. Dewatering of trenches / pits if required as per site condition. Repairing of all damaged utilities if any, and payment of any compensation (if claimed by owner / other utility agencies)					
13	Uncoiling / stringing & aligning of PE pipes, clamping, jointing of the pipe ends / fittings / valves by qualified personnel using approved electro-fusion techniques as per specification.					
14	Installation / lowering the pipeline in trench to required depth as per PJS, Technical Specification & drawings, supply & placement of HDPE Yellow colour warning mat (300 mm width as per attached Technical specification and QAP) over the pipeline along the complete route as per standard drawings, data sheets & technical specifications, padding around pipeline including supply of suitable padding material duly approved by EIC , backfilling to its original condition with excavated earth / borrowed select soil/sand duly approved by EIC & its compaction & crowning. At certain specific area of ROU, trench shall be backfilled & compacted and shall be made ready for motorable. All tiles/slabs/curb stones etc removed during excavation shall be placed properly and no separate payment shall be admissible against this activity. Restoration shall be carried as per separate SOR item mentioned elsewhere in the SOR or to be done by Owner / concerned authorities.					
15	The scope of work against this item also include Electro-fusion jointing of valves, fittings, saddle etc wherever required and as directed by Engineer-in-charge.					
16	The scope of work against laying of 20/32 mm pipe also includes works like making of PCC pedestal of grade (1:2:4) and size (8" depth X6" length X4" width) which may slightly vary in dimension and volumetric quantities of PCC and may increase up to 25% more as per site requirement., supply and installation of GI Sleeve (Heavy (C-Class) as per IS-1239), supply & filling of sand and installation of TF (along with supply).					

Annex 1 to FOA no. 05/51/Q7NT/GAIL/001-ii-11/FOA - 961
 dtd. 15.07.23

8

Sl. No.	Item Description	Item Code	Units	M/s Dev and Company, Delhi		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST) in Rs.
17	Flushing, Pneumatic testing, purging with nitrogen and commissioning as per specification and approved procedures providing all tools and tackles, nitrogen, instruments, manpower and other related accessories and as per the instructions of the Engineer-in-charge.					
18	Final clean-up of right-of-use or area disturbed by contractor during their construction activities for laying of pipeline works and disposal of debris and surplus material to designated disposal areas within GA and backfilling of trench and compaction of the same as per satisfaction of Owner and / or as directed by Engineer-in-charge.					
19	Maintaining the worthiness of the complete pipelines system along with associated facilities till hand over to the OWNER/ EIC and to carry out rectification/ replacement works for any defect or failures reported by OWNER during defect liability period.					
20	Handing over the completed works to Owner for their operation/ use, reconciliation of material area wise and obtaining "no objection certificate" from Owner/ PMC.					
21	Preparation and submission of Daily progress report, Laying Graphs / PE line cards on daily basis and get it reviewed/ inspected by Owner/ Owner representative/ PMC.					
22	On completion of gas charging of pipelines. Preparation and submission of As-built drawings, crossings details, termination, utility graphs and deviation statements.					
23	In case, the minimum required depth is not possible due to site condition, necessary mitigation measures shall be required to be taken by contractor in consultation with EIC as per PNGRB Guidelines. No additional payment shall be admissible against the same.					
24	Submission of all documents required for contract closure as mentioned in the contract document as per guidelines of the Owner/PMC.					
25	Any other activities not mentioned / covered explicitly above, but otherwise required for satisfactory completion / operation / safety / statutory / maintenance of the works shall also be covered under the scope of work and has to be completed by the Contractor within specified time schedule at no extra cost to Owner. All the work shall be executed in accordance with the provision of contract and/or latest guidelines of the statutory authority, whichever is stringent.					
26	20 mm PE 100 pipe by Open Cut Method (Laying of 20mm includes ground connectivity (GC)/Service Line to all the customers enroute). Note: Flushing, Testing, commissioning of 20mm and 32mm shall be done together.	A00102	Meter	600	324.03	194,419
27	20 mm PE 100 pipe by Moiling without casing Method (Laying of 20mm includes ground connectivity/Service Line to all the customers enroute). Note: Flushing, Testing, commissioning of 20mm and 32mm shall be done together.	A00103	Meter	4,800	409.70	1,966,536
28	32 mm PE 100 pipe by Open Cut Method (Laying of 32mm shall accompany service line/GC with 20mm to the customers enroute). Note: Flushing, Testing, commissioning of 32mm and 20mm shall be done together..	A00104	Meter	600	335.21	201,123
29	32 mm PE 100 pipe by Moiling without casing Method (Laying of 32mm shall accompany service line/GC with 20mm to the customers enroute). Note: Flushing, Testing, commissioning of 32mm and 20mm shall be done together.	A00105	Meter	9,600	424.59	4,076,093
30	For laying of 20 mm/32 mm branch PE pipe after taking either online tapping from Gas charged run/ service pipeline of size up to 63 mm or online tapping from positive pressurised [up to 2 bar(g)] condition run/ service pipeline of size up to 63 mm using required size of Saddle: Excavation of all size & depth in all type of under ground soil strata including pebbles, cobbles, gravels, boulders, soft & hard rock etc. to make the pit for installation of Saddle, carrying out installation & fixing of required size of Saddle, Reducer/ Expander, etc., where run/ service PE pipeline is in charged/Pressurised condition. Installation/ Laying of 20 mm/32 mm PE pipe from Saddle to Transition fittings (CS / GI Pipe to PE Pipe) including supply and installation of GI Sleeve of required sizes (Heavy C-Class) as per IS-1239, supply & filling of sand, supply & installation of Transition fittings of required sizes (CS / GI Pipe to PE Pipe) including blinding by end cap of pipe near TF shall be carried out as per activity description mentioned above for SOR Item No. A00102, A00103, A00104 & A00105 as applicable and payment shall be made accordingly for these activities. The scope of work against installation/ laying of 20 mm/ 32 mm pipe also includes works like making of PCC pedestal of grade (1:2:4) and size 300mm(Length)X 200mm(Width) X Height (H), where H>=300mm & will be as per site condition. Note:- 1) The above Item rate is valid for online Tapping including hookup with run/ service/ branch PE Pipeline along with supply of Saddle, Reducer/ Expander, other PE fittings required specifically at tapping point only, when the existing network is already charged/Pressurised condition. Online tapping for Branch/ Service Line/Ground Connectivity to be given to customers shall be paid during connection of Houses (Individual) or Apartment/Society. 2) Flushing, Testing, commissioning of 32mm and 20mm shall be done together or as per instruction of EIC and the payment shall be made as per SOR item rate A00102, A00103, A00104 & A00105 as applicable, mentioned elsewhere in the SOR.	A00106	Nos	400	2,048.48	819,390

Sl. No.	Item Description	Item Code	Units	M/s Dev and Company, Delhi		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST) in Rs.
31	For laying of 20 mm/32 mm branch PE pipe after taking either online tapping from Gas charged run/ service pipeline of size up to 63 mm or online tapping from positive pressurised (up to 2 bar(g)) condition run/ service pipeline of size up to 63 mm using required size of Equal/ Unequal Tee: Excavation of all size & depth in all type of under ground soil strata including pebbles, cobbles, gravels, boulders, soft & hard rock etc. to make the pit for installation of Equal/ Unequal Tee, carrying out installation & fixturing of required size of Equal/ Unequal Tee, Reducer/ Expander, etc., where run/ service PE pipeline is in charged/Pressurised condition. Installation/ Laying of 20 mm/32 mm PE pipe from Saddle to Transition fittings (CS / GI Pipe to PE Pipe) including supply and installation of GI Sleeve of required sizes (Heavy (C-Class) as per IS-1239), supply & filling of sand, supply & installation of Transition fittings of required sizes (CS / GI Pipe to PE Pipe) including blinding by end cap of pipe near TF shall be carried out as per activity description mentioned above for SOR Item No. A00102, A00103, A00104 & A00105 as applicable and payment shall be made accordingly for these activities. The scope of work against installation/ laying of 20 mm/ 32 mm pipe also includes works like making of PCC pedestal of grade (1:2:4) and size 300mm(Length)X 200mm(Width) X Height (H), where H>=300mm & will be as per site condition. Note:- 1) The above Item rate is valid for online Tapping including hookup with run/ service/ branch PE Pipeline along with supply of Equal/ Unequal Tee, Reducer/ Expander, other PE fittings required specifically at tapping point only, when the existing network is already charged/Pressurised condition. Online tapping for Branch/ Service Line/Ground Connectivity to be given to customers shall be paid during connection of Houses (Individual) or Apartment/Society. 2) Flushing, Testing, commissioning of 32mm and 20mm shall be done together or as per instruction of EIC and the payment shall be made as per SOR item rate A00102, A00103, A00104 & A00105 as applicable, mentioned elsewhere in the SOR.	A00107	Nos	400	1,973.99	789,594
32	Note: i) The lengths of pipelines are tentative, it may increase or decrease as per site requirement or as per instruction of EIC. ii) For restoration of asphalt / concrete roads, the item for construction of asphalt top / concrete top / red stone / paver/RCC/CC shall be paid separately as per the rates quoted for the same elsewhere in the SOR. iii) The Scope of work will start from tapping saddle/Tee on existing/laid PE pipe of various sizes of existing network to Transition Fitting (PE to GI). The tapping saddle/Tee, Transition Fittings and other fittings shall be included in the measurement under relevant SOR. iv) Bidder has to familiarise themselves the entire locations /region/ charge area within the GA and ascertain all type of eventuality/uncertainty before quoting their bid.					
33	PE pipe laying of sizes 20 mm/ 32 mm inside Private Property i.e Multistory buildings / apartments with no movement of Heavy Vehicles, surrounded with Boundary wall where pipe top cover could not be achieved 600 mm.	A00200				
34	Minimum pipe top cover of 375 mm is required and the line pressure shall not exceed 110mbar.					
35	Necessary mitigation measures such as RCC slab (150mm thick and 300mm width) at the top, of the RCC slab of the roof of basement shall be treated as bottom. There shall be sand filling across three sides of the line pipe of 100mm each shall be required to be taken by contractor in consultation with EIC as per latest PNGRB Guidelines. No additional payment shall be admissible against the same.					
36	Receipt, Loading, unloading, storing, reloading, transportation, unloading, Uncoiling, stringing and laying of PE100, SDR11/17.6 line pipes of all sizes including, proper stacking, identification, and supply of accessories of all sizes & thickness like PE Bends, Saddle, Couplers, Endcaps, Tee(Equal/ Reducing), Reducer, CS / GI to PE Fittings (i.e. Transition Fittings of sizes 20 mm to 32 mm), Warning Mat (300 mm width as per attached Technical specification and QAP) etc. Handling, Stringing / uncoiling, aligning of the PE line pipe on the pipeline Right-of-Use / route ,laying / installation of PE line pipe alongwith required accessories as mentioned above as per specification wherever required depending on site condition including execution of all works; Storage of material in contractor's store, fabrication, access for construction procurement and supply of all materials, consumables, equipments, labour and other inputs. In the case of free issue items, the scope also includes, receiving and loading from Owner's designated store, transportation, unloading and stacking of free issue items at Contractor's store					
37	Carrying out all temporary, ancillary, auxiliary works required to make the PE pipeline ready for commissioning as per drawing.					
38	Surveying of route and detours required at the time of execution, preparation of construction drawings showing survey details, and submit same to Owner for review / approval.					
39	Preparation and getting approval of schedules, execution procedures, drawings/ sketches/ wherever required, making trial pits to determine the underground utilities/ services etc., restoration of the abandoned trial pits to original condition.					
40	Barricading the pipeline construction area prior to execution of the works as per drawing no. MEC/23QH/05/25/M/000/011 & MEC/23QH/05/25/M/000/010 enclosed with tender document and to the entire satisfaction of owner / engineer- in -charge.					

Sl. No.	Item Description	Item Code	Units	M/s Dev and Company, Delhi		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST) in Rs.
41	Laying using open trench without casing includes survey of under ground utilities (through trial pits), execution of work as per specification including Trenching to all depths by excavation in all types of soils including soft/ rocky strata and different type of pavement / footpath / roads etc. including rock breaking, chiselling or otherwise cutting etc. as required and storing excavated soil, reusable materials at designated area as directed by Engineer in charge and to a width to accommodate the pipeline as per the relevant standard/ specification etc. [The minimum depth of the top of pipeline shall be 1.0 m measured from top of pipeline to the top of undisturbed surface of the soil or as per Specification/ OISD- 226 & PNGRB latest guidelines whichever is higher]. Dewatering of trenches / pits if required as per site condition. Repairing of all damaged utilities if any, and payment of any compensation (if claimed by owner / other utility agencies)					
42	Uncoiling / stringing & aligning of PE pipes, clamping, jointing of the pipe ends / fittings / valves by qualified personnel using approved electro-fusion techniques as per specification.					
43	Installation / lowering the pipeline in trench to required depth, supply & placement of HDPE Yellow colour warning mat (300 mm width as per attached Technical specification and QAP) over the pipeline along the complete route as per standard drawing and backfilling to its original condition with excavated earth / borrowed select soil / sand duly approved by EIC & its compaction & crowning. At certain specific area of ROU, trench shall be backfilled & compacted and shall be made ready for motorable. All tiles / slabs / curb stones etc removed during excavation shall be placed properly and no separate payment shall be admissible against this activity. Restoration shall be carried as per separate SOR item mentioned elsewhere in the SOR or to be done by Owner / concerned authorities.					
44	The scope of work against laying of 20 mm /32 mm pipe also includes works like making of PCC pedestal of grade (1:2:4) and size (300mm(L)X200mm(W) XHeight (H)), (H>=300mm & will be as per site condition)), supply and installation of GI Sleeve (Heavy (C-Class) as per IS 1239), filling of sand and installation of TF (along with supply).					
45	Pneumatic testing, purging with nitrogen and commissioning as per specification and approved procedures providing all tools and tackles, nitrogen, instruments, manpower and other related accessories and as per the instructions of the Engineer-in-charge.					
46	Final clean-up of right-of-use or area disturbed by contractor during their construction activities for laying of pipeline works and disposal of debris and surplus material to designated disposal areas and backfilling of trench and compaction of the same as per satisfaction of Owner and / or as directed by Engineer-in-charge.					
47	Maintaining the completed pipelines and installation for any defect or failures during defect liability period.					
48	Handing over the completed works to Owner for their operation/ use, reconciliation of material area wise and obtaining 'no objection certificate' from Owner/ Consultant.					
49	On completion of gas charging of pipelines. Preparation and submission of As-built drawings, crossings details, termination, utility graphs and deviation statements.					
50	Any other activities not mentioned / covered explicitly above, but otherwise required for satisfactory completion / operation / safety / statutory / maintenance of the works shall also be covered under the scope of work and has to be completed by the Contractor within specified schedule at no extra cost to Owner. All the work shall be executed in accordance with the provision of contract.					
51	20 mm PE 100 pipe	A00201	Meter	600	543.78	326,266
52	32 mm PE 100 pipe	A00202	Meter	960	588.47	564,932
54	Civil Work/Cutting/ Breaking and Restoration	A00300				
55	Restoration of the roads, pavements, channels, footpaths, tiles, stones etc. to original condition including supply of the approved quality material required, as per local authorities norms, obtaining NOC from land owners/ third party inspection agencies/Consultant designated by GAIL and to the satisfaction of Engineer-in-charge.					
56	Asphalting	A00301	Meter	30	327.76	9,833
57	Breaking/Cutting of Cement Concrete-Making provision for PE Pipe laying as per site requirement and as per instruction of EIC.	A00302	Meter	400	130.36	52,143
58	Cement Concrete restoration as per scope of work (Excluding Breaking/Cutting)	A00303	Meter	400	916.23	366,491
59	Breaking/Cutting of RCC Core- Making provision for PE Pipe laying as per site requirement and as per instruction of EIC.	A00304	Meter	300	204.85	61,454
60	RCC restoration as per scope of work (Excluding Breaking/Cutting)	A00305	Meter	600	1,117.35	670,410
61	Tiles/ Paver/ Blocks/ Curb Stones, Red sand stone	A00306	Meter	2,200	335.21	737,451
62	Brick Soling/ Stone Soling, etc	A00307	Meter	400	238.37	95,347
63	Providing, hoisting and placing of 75 mm thick precast reinforced cement concrete slab of M-20 grade over pipeline as mechanical protection including the cost of required centering, shuttering, reinforcement complete as per tender drawing and direction of the EIC. Note:- Size (Length x Width) of the precast slab will be decided as per site condition and as per instruction of EIC. Precast slab will be placed in multiple number and various location as per site condition and as per instruction of EIC.	A00308	Cubic Meter	4	10,428.60	41,714

Sl. No.	Item Description	Item Code	Units	M/s Dev and Company, Delhi		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST) in Rs.
64	Valve Pit Chamber (Brick Masonry) Constructing valve pit chamber in brick masonry with cement mortar 1:4 (1 cement : 4 coarse sand) over 150 mm thick RCC Foundation along with 75 mm thick levelling course in 1:4:8 mix including 16 mm thick plastering with cement mortar 1:3 (1 cement : 3 coarse sand) and PCC pedestal for Valve support (if required) complete as per specification, drawings and direction of EIC. Valve Pit Chamber shall be covered with 150 mm thick RCC top slab of M-25 grade with manhole cover (medium duty) along with frame as per IS 1726. Rate to include cost of all labour, tools, tackles, equipment, hire charges, supply of all materials such as minimum 45 grade cement, reinforcement, CI manhole cover, PVC coated rungs, inserts including excavation and backfilling, masonry works, plastering, etc. with all bye works and sundry works.					
65	Type I : Inside size 1500 mm x 1000 mm and upto 1500 mm deep	A00309	EACH	1	29,796.00	29,796
66	Type II : Inside size 1500 mm x 1000 mm and greater than 1500 mm deep	A00310	EACH	1	37,245.00	37,245
67	Valve Pit Chamber (RCC) Constructing valve pit chamber in RCC of grade M-25 over 75 mm thick levelling course in 1:4:8 mix including 16 mm thick plastering with cement mortar 1:3 (1 cement : 3 coarse sand) and PCC pedestal for Valve support (if required) complete as per specification, drawings and direction of EIC. Valve Pit Chamber shall be covered with 150 mm thick RCC top slab of M-25 grade with manhole cover (medium duty) along with frame as per IS 1726. Rate to include cost of all labour, tools, tackles, equipment, hire charges, supply of all materials such as minimum 45 grade cement, reinforcement, CI manhole cover, PVC coated rungs, inserts including excavation and backfilling, masonry works, plastering, etc. with all bye works and sundry works.					
68	Type I : Inside size 1500 mm x 1000 mm and upto 1500 mm deep	A00311	EACH	2	55,867.50	111,735
69	Type II : Inside size 1500 mm x 1000 mm and greater than 1500 mm deep	A00312	EACH	1	70,765.50	70,766
70	Pipe Laying in any unprepared surface (Katcha surface) / Normal Surface / Hard surface (all type of hard Rock) using open cut with casing / Miling with Casing methodology.	A00400				
71	Laying of all PE pipe (PE 100 SDR11), Including supply of HDPE casing pipe, Saddle, Couplers, End caps etc. (As per Particular job specification.)					
72	Survey of under ground utilities, execution of the work as per specification, including excavation of pits miling with the hole size not exceeding 20% of the pipe dia, jointing and insertion of carrier pipe with casing, testing & commissioning and restoration of the pits to original condition, submission of As-Built Graph as per specifications and the instruction of Engineer-in-charge.					
73	20 mm PE 100 pipe (in 50 mm dia. HDPE Casing Pipe) by open cut Method with casing	A00401	Meter	60	502.81	30,168
74	20 mm PE 100 pipe (in 50 mm dia. HDPE Casing Pipe) by Miling Method with casing	A00402	Meter	60	588.47	35,308
75	32 mm PE 100 pipe (in 75 mm dia. HDPE Casing Pipe)by open cut Method with casing	A00403	Meter	30	551.23	16,537
76	32 mm PE 100 pipe (in 75 mm dia. HDPE Casing Pipe)by Miling Method with casing	A00404	Meter	30	648.06	19,442
77	Supply of GI Concrete Sleeves (wherever required as a Special Case as per instructions of the Engineer-in-charge)	A00500				
78	Supply, installation of sleeve, insertion of pipe, sealing the annular area, firm fixing of Sleeves with concrete mix. Breaking through any obstructions and their subsequent restoration, as per specifications and instructions of the Engineer-in-charge.					
79	GI Sleeves /Concrete Sleeves					
80	2 1/2" NB, 1' Length	A00501	Nos.	5	216.02	1,080
81	4" NB, 1' Length	A00502	Nos.	5	379.90	1,899
82	2 1/2" NB, 3' Length	A00503	Nos.	2	521.43	1,043
83	4" NB, 3' Length	A00504	Nos.	2	931.13	1,862
84	MS Enamel Coated					
85	4" NB, 3' Length	A00505	Nos.	1	871.53	872
86	Concrete Sleeve (NP-2 Class)					
87	4" NB, 3' Length	A00506	Nos.	1	216.02	216
88	6" NB, 3' Length	A00507	Nos.	1	350.10	350
89	Note:-The decision regarding use of type of sleeves to be used at various locations shall be made by Engineer- In-Charge (EIC) / Owner					
90	Supply of Copper Jumper wire (wherever required to maintain the continuity of Pipeline to be laid)	A00600				
91	Supply, Installation, Jointing using Soldering/Pin Brazing/other technique to connect and Integrate the PE pipeline laid for traceability purpose					
92	1.2 MM Copper Jumper insulated wire (as per TS wherever required)	A00601	Meter	200	119.18	23,837
93	Fabrication & Installation of Markers	A00700				
94	RCC Route Markers					
95	Supply, fabrication and installation of RCC route markers including application of approved color and quality of primer and paint as per the standard drawing, along the route including all associated civil works such as excavation and construction in all types of soils, construction and pedestals and grouting with concrete. These works shall be carried out as per installation methodology approved by EIC based on site requirement.	A00701	Nos.	180	446.94	80,449
96	Steel Pole Markers with Foundation					
97	Supply, fabrication and installation of Steel Pole markers including application of approved color and quality of primer and paint as per the standard drawings including all associated civil works such as excavation and construction in all types of soils, construction and pedestals and grouting with concrete, cleaning, stencil letter cutting of lettering, numbers, direction, etc. These works shall be carried out as per installation methodology approved by EIC based on site requirement.	A00702	Nos.	40	2,487.97	99,519
98	Warning Plate Markers					

Sl. No.	Item Description	Item Code	Units	M/s Dev and Company, Delhi		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST) in Rs.
99	Supply, fabrication and installation of plate markers including application of approved color and quality of primer and paint, stencil letter cutting of lettering, numbers, direction, etc. as per the standard drawings to be installed near regulator. These works shall be carried out as per installation methodology approved by EIC based on site requirement.	A00703	Nos.	1,800	461.84	831,308
100	Paver Block-Tiles Markers					
101	Supply, fabrication and installation of Paver Block-Tiles markers of standard size as per industry practice along the route on Paver Block/Tiles on foot Path/As per the instruction of EIC including application of approved color and quality of primer and paint, stencil letter cutting of lettering, numbers, direction, etc. Carrying out all associated works for fixing / grouting / anchoring the marker with surface. These works shall be carried out as per installation methodology approved by EIC based on site requirement.	A00704	Nos.	40	432.04	17,282
102	Crossing of Sewage Drains/Nala alongside of Independent houses where drains/Nalas are being encountered adjacent to houses	A00800				
103	The scope of work include supply of Medium duty GI Casing pipes of 2.5 inches, alongwith padding with sand stone and civil works associated for construction of cover slab as per drawing No. MEC/23VV/05/25/MBharatpur/Typ/001.	A00801	Nos.	200	2,979.60	595,920
104	PNG Connection to Domestic/ Commercial/ Industrial Consumers	B00100				
105	Installation of Carbon Steel (CS)/ GI Service Pipe	B00101				
106	Supply/Receipt, Loading, unloading, storing, reloading, transportation, unloading at work site and laying of either Owner supplied Powder coated GI pipes or Contractor supplied Powder coated GI pipes & carbon steel pipes of all sizes & thickness including supply of all associated compatible accessories of all sizes & thickness like Elbows, Tees, unions, sockets, reducers, GI plugs, Sleeves etc., installation of GI line (alongwith installation of required accessories as mentioned above) of all sizes & thickness, including fabrication with supply of all materials, consumables, labour and other incidental works. The scope of work also includes installation of Regulators (4/6 bar to 100/21 mbar and/or 100 mbar to 21 mbar) which shall be provided as free issue item. Installation of all sizes of isolation Valves (which are to be procured & supplied by contractor mentioned elsewhere as separate items in the SOR). Carrying out all temporary, ancillary, auxiliary works required to make the GI line complete and ready for commissioning as per drawings specifications. Handling, aligning, fabrication & installation of the GI Pipes in the work area alongwith					
107	Scope of work indicated in PJS and other provisions of Contract document and instructions of Engineer-in-charge, including but not limited to carrying out the following works:					
108	Preparation and getting approval of execution schedules, execution procedures, drawings/ sketches from Owner/Engineer-in-charge and/or from concerned authority.					
109	Finalisation of optimum route with consent of customer, from transition fitting to cooking oven/ appliance.					
110	Making temporary but stable platforms/ scaffolding/ rope ladders and all other safety measures including safety belts wherever required.					
111	Installation of GI Pipes, Fittings, including NPT threading, painting as specified.					
112	Drillings of holes through walls (Brick, RCC), Granite, Marble, Glass Cutting with proper heavy duty hammer drill machine tools and tackle, using proper sealant /grout material/ed colors to match the original replacement of damages during drilling, restoring the area to original condition.					
113	In case of Multistorey building where RCC Slab/Visor/Sunshade/Chhajja restrict riser installation then separate payment for cement concrete/ RCC core-cutting with heavy duty drill machine and their restoration shall be paid under SOR items 2.2(a), 2.2(b), 2.2(c) & 2.2(d) and as per instruction and direction of EIC					
114	Supply & Fixing of approved clamps, Dowell Plugs with screws, grout material, suitable thread sealant i.e. Teflon Tape/ lock tight, drilling of holes through tiles/ wood/ marble/ Granite etc. jointing of PE to above Ground service GI pipes, flushing, pneumatic testing, purging with Nitrogen (including supply of Nitrogen as inert gas by contractor) and commissioning or make ready for commissioning of the complete system as per specification and as per Instruction of EIC.					
115	Touchup Painting/Painting of outer surface of GI pipe of all sizes along with fittings after proper surface finish by one coat of approved primer paint and two coats of approved synthetic enamel paint complete as per specification & direction of EIC. Restoring the wall surface to original condition to the entire satisfaction of EIC and getting NOC from end user/Consumer/ concerned authorities/ Authorised competent person of the Society.					
116	All above activities to be carried out as per specification to the complete satisfaction of consumer & as desired by Engineer-in-charge.					
117	Handing over the completed works to GAIL for operation/ use, reconciliation of material area wise and obtaining "no objection certificate" from GAIL / GAIL Representative at Site/ CPMC.					
118	Any other activity not mentioned/ covered, explicitly above, but otherwise required for satisfactory completion/ safety/ statutory/ maintenance of works shall also be covered under scope of work and has to be completed by contractor within specified schedule time.					
119	½" All floors (Including connectivity from TF to regulator.)- with supply of GI Pipes by Contractor	B00102	Meter	6,000	342.65	2,055,924
120	½" All floors (Including connectivity from TF to regulator.)- with supply of GI Pipes by Owner on Free Issue Basis.	B00103	Meter	20,000	230.92	4,618,380
121	¾" All Floors (Including Installation of Risers)- with supply of GI Pipes by Contractor	B00104	Meter	4,000	368.73	1,474,902
122	¾" All Floors (Including Installation of Risers) with supply of GI Pipes by Owner on Free Issue Basis	B00105	Meter	12,800	230.92	2,955,763

Sl. No.	Item Description	Item Code	Units	M/s Dev and Company, Delhi		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST) in Rs.
123	1" Dia All Floors ((for Riser Installtions & For Commercial Connections)- with supply of GI Pipes by Contractor (Rates are inclusive of installation by threading, however incase of pipe joining by welding as per direction of EIC, payment for Welding, NDT will be made separately)	B00106	Meter	200	376.17	75,235
124	1" Dia All Floors ((for Riser Installtions & For Commercial Connections)- with supply of GI Pipes by Owner on Free Issue Basis (Rates are inclusive of installation by threading, however incase of pipe joining by welding as per direction of EIC, payment for Welding, NDT will be made separately)	B00107	Meter	120	148.98	17,878
125	Supply & laying/ installation including fabrication of Contractor supplied Carbon steel piping system of all sizes & thickness including fabrication & installation of required compatible isolation ball valves fittings, flanges, gaskets, valves, NRV, Strainer, couplings, etc of all sizes, thickness & ANSI pressure rating including Pressure Gauge (PG) etc. as per instruction of EIC. Supply of all type of manpower, macinaries, materials, consumables, and other incidental works to carry out & complete the works at site as per instruction of EIC. Flushing, Pneumatic testing, purging with nitrogen (including supply of Notrogen as inert gas by contractor) and commissioning or make ready for commissioning as per specification and as per Instruction of EIC. Any other activity not mentioned/ covered, explicitly above, but otherwise required for	B00108	Meter	40	484.19	19,367
126	Supply,laying/ installation & visual testing including fabrication of Contractor supplied Carbon steel piping system of all sizes & thickness including fabrication, installation & visual testing of required compatible fittings, flanges, gaskets, valves, NRV, Strainer, couplings, etc of all sizes, thickness & ANSI pressure rating including Pressure Gauge (PG) etc. as per instruction of EIC. Supply of all type of manpower, macinaries, materials, consumables, and other incidental works to carry out & complete the works at site as per instruction of EIC. Flushing, Pneumatic testing, purging with nitrogen (including supply of Notrogen as inert gas by contractor) and commissioning or make ready for commissioning as per specification and as per Instruction of EIC. Any other activity not mentioned/ covered, explicitly above, but otherwise required for satisfactory completion/ safety/ statutory/ maintenance of works shall also be covered under scope of work and has to be completed by contractor within specified schedule time. - 2" Dia All Floors (For Commercial & Industrial Connections)- (Payment for Welding, NDT- Radiography will be made separately mentioned elsewhere in the SOR)	B00109	Meter	40	633.17	25,327
127	Carrying out Welding of GI/CS Pipes as per latest applicable code & standard for above SOR items B00106, B00107, B00108 & B00109 as per site requirement and instruction of EIC	B00110	Inch-Dia	300	111.74	33,521
128	Carrying out NDT/Radiography of welded joints of CS/GI Pipes as per latest applicable code & standard for above SOR items B00106, B00107, B00108 & B00109 as per site requirement and instruction of EIC	B00111	Inch-Dia	300	22.35	6,704
129	Supply of Nitrogen as inert gas for preservation at positive pressure and/or other works as per site requirement and instruction of EIC (wherever supply of Nitrogen is not covered under the scope of Bidder mentioned elsewhere in the SOR).	B00112	Cubic Mete	100	111.74	11,174
130	Note:- i) Refer Particular Job Specification for supply items. ii) The quantity measurement shall be from the outlet of the Transition Fitting (TF) upto the Meter. All intermediate CS fittings & valves, GI fittings & valves (excluding Flexible Hose / Anaconda, meter and regulator) shall be considered while measuring length of CS/GI Pipes. iii) Supply of isolation Ball Valves, shall be paid as a separate SOR Item. iv) Supply of CS fittings & Valves for 1 1/2" & 2" CS piping [SOR ITEM B00108 & B00109] shall be paid as a separate SOR Item. v) In case of SOR items B00103, B00105 & B00107 above (under SOR item No.- B00101), owner shall supply Plain or Powder Coated GI Pipes (as free issue) remaining scope of supplies of fittings etc. including all associated works shall be as per item nos.-a, c & e (under SOR item No.- B00101)					
131	Cutting/ Breaking and Restoration	B00200				
132	In case of Multistorey building where RCC Slab/Visor/Sunshade/Chhajja restrict riser installation then separate payment for core-cutting with heavy duty drill machine shall be paid under below SOR item and as per instruction and direction of EIC					
133	Breaking/Cutting of Cement Concrete-Making provision for GI Pipe laying	B00201	Inch	600	5.21	3,129
134	Cement Concrete restoration as per scope of work (Excluding Breaking/Cutting)	B00202	Inch	600	26.07	15,643
135	Breaking/Cutting of RCC Core-Making provision for GI Pipe laying	B00203	Inch	400	7.45	2,980
136	RCC restoration as per scope of work (Excluding Breaking/Cutting)	B00204	Inch	400	33.52	13,408
137	Supply of Valves and fittings for Carrying out connection((For Commercial & Industrial Connections)	B00300				
138	Supply of valves and fittings as per Technical Specification and as directed by EIC					
139	Isolation CS Ball Valve 1 1/2" (1.5") NB, SWE/FE, ANSI pressure class rating 150# / 800# (as per Piping Material Specification (PMS) & Datasheet)	B00301	Nos.	5	681.58	3,408
140	Isolation CS Ball Valve 2" NB, BWE/FE, ANSI pressure class rating 150# (as per PMS & Datasheet)	B00302	Nos.	5	908.78	4,544
141	WNRF Falnge -1 1/2" (1.5") NB, (as per PMS)	B00303	Nos.	3	335.21	1,006
142	WNRF Falnge -2" NB, ANSI pressure class rating 150# / 800# (as per PMS)	B00304	Nos.	12	573.57	6,883
143	Elbow -1 1/2" (1.5") NB, SWE (as per PMS)	B00305	Nos.	12	633.17	7,598
144	Elbow -2" NB, BWE, ANSI pressure class rating 150# (as per PMS)	B00306	Nos.	12	893.88	10,727
145	Tee -Equal -1.5"x1.5"x1.5" NB, SWE, (as per PMS)	B00307	Nos.	6	744.90	4,469
146	Tee -Equal -2"x2"x2" NB, BWE, ANSI pressure class rating 150# (as per PMS)	B00308	Nos.	6	1,117.35	6,704
147	NRV 1.5" NB, SWE/FE, ANSI pressure class rating 150# / 800# (as per PMS & Datasheet)	B00309	Nos.	6	968.37	5,810
148	NRV 2" NB, BWE/FE, ANSI pressure class rating 150# (as per PMS & Datasheet)	B00310	Nos.	6	1,489.80	8,939

Sl. No.	Item Description	Item Code	Units	M/s Dev and Company, Delhi		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST) in Rs.
149	Strainer 1.5"NB, SWE/FE, (as per PMS & Datasheet)	B00311	Nos.	6	744.90	4,469
150	Strainer 2"NB, BWE/FE, ANSI pressure class rating 150# (as per PMS & Datasheet)	B00312	Nos.	6	1,042.86	6,257
151	SS 304 Spiral wound Gasket 1" NB as per specification/ relevant ASME code.	B00313	Nos.	12	37.25	447
152	SS 304 Spiral wound Gasket 1.5" NB as per specification/ relevant ASME code.	B00314	Nos.	12	48.42	581
153	SS 304 Spiral wound Gasket 2" NB as per specification/ relevant ASME code.	B00315	Nos.	20	67.04	1,341
154	Reducer 2"x1.5" NB, BWE x SWE, as per PMS	B00316	Nos.	6	104.29	626
155	Reducer 1.5"x1" NB, SWE, as per PMS	B00317	Nos.	6	70.77	425
156	Reducer 2"x1" NB, BWE x SWE, as per PMS	B00318	Nos.	6	93.11	559
157	Full coupling of 1.5" NB as per PMS	B00319	Nos.	6	186.23	1,117
158	Half coupling of 1.5" NB as per PMS	B00320	Nos.	6	111.74	670
159	Full coupling of 1" NB as per PMS	B00321	Nos.	6	134.08	804
160	Half coupling of 1" NB as per PMS	B00322	Nos.	6	67.04	402
161	Stud & Nut for connection of 1.5" NB SWRF Flanges of ANSI pressure class rating 150#/ 800# (as per PMS & relevant code)	B00323	Nos.	34	74.49	2,533
162	Stud & Nut for connection of 2" NB WNRF Flanges of ANSI pressure class rating 150# (as per PMS & relevant code)	B00324	Nos.	70	111.74	7,821
163	Supply of Pressure Gauge for maximum operating pressure 6 bar(g) as per specification of approved make	B00325	Nos.	4	3,724.50	14,898
164	Note:- Before procurement of all above supply items by contractor, quantities to be finalised by contractor and approved by the GAIL/PMC.					
165	Supply, Installation, Testing & Commissioning of Copper Service Pipes	B00400				
166	Supply and installation of copper tubing and installation of Appliance Ball valves as per Technical specification and alongwith associated accessories/fittings including brass fittings at the outlet of the meter and at the entry of appliance valve as per satisfaction and instruction of EIC. The copper tube and fittings shall be procured from approved vendors who have supplied these items for similar application earlier and with prior approved of Owner / PMC.					
167	Copper tube shall be installed from the downstream of meter upto the isolation/ appliance valve before the customers' appliance as per requirement and to the satisfaction of EIC. The Contractor to provide all equipment, tools & tackles and associated material required necessary to execute the work in an efficient manner by cutting, cleaning, flux application, soldering and lacquering. The work includes supply of all tools, tackles and consumables including clamps for fixing the tubes and restoration of the work area to the satisfaction of the customer.					
168	12.0 mm OD x 0.6 mm wall thickness	B00401	Meter	500	394.80	197,399
169	Supply, Installation, Testing & Commissioning of Multi Layer Composite (MLC) Pipes	B00500				
170	Supply and installation of MLC Pipe as per ISO17484-1 latest standard and installation of Appliance Ball valves as per technical specification alongwith associated accessories/fittings including brass fittings at the outlet of the meter and at the entry of appliance valve as per satisfaction and instruction of EIC. The MLC Pipe and fittings shall be procured from approved vendors or from those vendors, who have supplied these items for similar application earlier and with prior approved of Owner / PMC.					
171	MLC Pipe shall be installed from the downstream of meter upto the isolation/ appliance valve before the customer's appliance as per requirement and to the satisfaction of EIC. The Contractor to provide all equipment, tools & tackles and associated material required necessary to execute the work in an efficient manner by cutting, cleaning, Bending, Fixing with					
172	16.0 mm OD	B00501	Meter	260	223.47	58,102
173	Note: i) Supply of Appliance Ball Valves shall be paid as a separate SOR Item. ii) SOR item No. B00400 & B00500 shall be carried out including supply of materials, only after getting instruction / approval from EIC.					
174	Installation of Regulator, Meter, Flexible Hose & Conversion of Domestic Appliance:	B00600				
175	Installation & fixing of meters & regulators (100 m bar to 21 m bar, wherever required) with associated inlet connections/ fittings, valves, approved meter brackets and other supports by proper scaffolding/ grouting, Restoration of the work area to its original condition to the entire	B00601	Nos.	4,000	186.23	744,900
176	Conversion of Domestic Appliances Carrying out the complete works starts from outlet of meters which includes installation of GI pipe, Appliance valve etc & other supports by proper grouting, Restoring the area to original complete as per specification. The work also includes installation and supply of Steel reinforced Flexible Hose as per IS 9573 (with type as per latest PNGRB guidelines) (Gas tube from end of Isolation Valve upto burner/stove) and conversion of all the burners of the LPG stove (one stove per household) including supply of all types of burner nozzles/jets and associated controls etc.	B00602	Nos.	4,000	223.47	893,880
177	Complete works as per specification for carrying out cleaning and performing minor maintenance, greasing etc. of appliance, testing/ showing performance to the customer, signing of Joint Meter Records (JMR) and issue of guideline / instructing to customer regarding operation & safety norms during use as per specifications. The issued instruction & guideline should be the entire satisfaction of customer.					
178	Supply of Valves for Carrying out connection (For Domestic Connections)	B00700				
179	Supply of Isolation & Appliance Ball Valves as per Technical Specification and as directed by EIC					
180	Isolation Ball Valve 1/2" max. 6 bar (g)	B00701	Nos.	4,000	230.92	923,676
181	Isolation Ball Valve 3/4" max. 6 bar (g)	B00702	Nos.	2,000	365.00	730,002
182	Isolation Ball Valve 1" max. 6 bar (g)	B00703	Nos.	40	454.39	18,176
183	Appliance Ball Valve 1/2" max. 35 mili Bar (g)	B00704	Nos.	4,000	193.67	774,696

Sl. No.	Item Description	Item Code	Units	M/s Dev and Company, Delhi		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST) in Rs.
184	Regulator Boxes: Supply & Installation including painting of approved make regulator boxes and installing them firmly by grouting using approved bracket/clamps as per standard drawing & as per specifications and cleaning the area complete to the satisfaction of EIC.	B00800	Nos	5	871.53	4,358
185	Note:- Services of Safety Officer must be provided by the contractor during execution of Works as mentioned in various sub SOR items under SOR items A00100 & B00100 . Safety Officer will report to EIC and liable to follow his instruction time to time during their deputation at work site. The cost of deputation of Safety Officer at work site is included in above sub SOR items rate under SOR items A00100 & B00100 . In case of non deployment of Safety Officer during execution of works at site and/or as per instruction of EIC, penalty will be levied to contractor as per rate/ amount mentioned in Annexure-10 to SCC enclosed with the tender document and the same will be deducted from their RA Bill.					
186	Registration of Domestic PNG Connections	C00100				
187	Assistance in carrying out the work of Domestic PNG registration as per directions/instructions of the Marketing In charge of GAIL (I) Limited / Authorized representative including but not limited to following: 1) Enrolment & Registration of Domestic PNG Customers as per the given target. 2) Collection of filled up form along with Cheque/Demand Draft of Security Deposit amount and documents All other activities as may be required to complete the work in all respect is defined in the Scope of work to be read along with the Special Conditions of Contract and as per instructions of MIC. Carrying out the marketing activities for Domestic PNG connection as detailed in Scope of work, complete in all respects, as per directions/instructions of the Marketing In Charge including but not limited to the following: Distribution of leaflets & FAQ, Installation of banners, to be provided by client, at prime location, Awareness cum Registration Camp, Audio / Visual Presentations, Organizing Road Shows, etc.	C00101	Nos.	1,200	111.74	134,082
188	Providing the Services of Resources as per site requirement	D00100				
189	Providing the services of Plumber(Manday= 8 Working Hours)	D00101	Manday	4	595.92	2,384
190	Providing the services of Helper(Manday= 8 Working Hours)	D00102	Manday	4	484.19	1,937
191	Providing the Services of Welder(Manday= 8 Working Hours)	D00103	Manday	4	1,303.58	5,214
192	Providing the Services of Electrician(Manday= 8 Working Hours)	D00104	Manday	4	744.90	2,980
193	Providing the Services of Conversion Technician(Manday= 8 Working Hours)	D00105	Manday	4	633.17	2,533
194	Providing the Services of Grinder(Manday= 8 Working Hours)	D00106	Manday	4	860.36	3,441
195	Note for all above SOR Items Nos. A00100 to D00106 :- i) Quantities mentioned against all above SOR items are estimated & tentative and may vary up to any extent as per site condition and/or as per instruction of EIC. ii) If certain documents, drawings, datasheets, specifications etc. are not included in the bid, the same will be made available to the successful bidder. While formulating the bid, bidders are requested to quote such items based on practices followed by the similar nature of industries. However procurement & installation of such items will be done as per site requirement after due approval of EIC. iii) Quantities mentioned against all above SOR items are estimated & tentative and may required to be executed either in Ranchi GA or in Jamshedpur GA or in both the GAs, in any ratio, as per site requirement and/or as per instruction of EIC. In this regard, decision of EIC shall be final and binding to the contractor. Hence, bidder is requested to familiarize themselves with both the GAs mentioned above while formulating their bid.					
	Total Excluding GST					28,909,960
	Total Including GST					34,113,753



मेकॉन लिमिटेड (भारत सरकार का संस्थान)

MECON LIMITED (A GOVT. OF INDIA ENTERPRISES)



13वां एवं 15वां तल, नार्थ टॉवर, स्कोप मीनार, लक्ष्मी नगर व्यवसायिक केन्द्र, दिल्ली-110092, (भारत)
13th & 15th Floor, North Tower, Scope Minar, Laxmi Nagar District Center, Delhi-110092, (INDIA)

फोन / Phone : +91-11-2244 7417, CIN : U74140JH1973GOI001199
GSTIN : 07AACCM2119B1Z4 वेबसाइट / Website : <http://meconlimited.co.in>

स्वीकृति का फैक्स / FAX OF ACCEPTANCE (FOA)

FOA NO. 05/51/Q7NT/GAIL/001-ii-11/FOA-960

DATE: 15.07.2023

TO : M/S EMBRACE GAS PIPELINES PVT. LTD.
PHONE: +91- 9999495557
EMAIL: rajivm@embracelgroup.in, tender@embracelgroup.in
ATTN : MR. RAJIV MULCHANDANI, CEO
FROM : SR. GM (CONTRACTS), MECON LIMITED, DELHI

PLEASE REFER TO YOUR OFFER NO. NIL DTD. NIL (NIC BID ID: 541770) AND ALL OTHER SUBSEQUENT CORRESPONDENCE AGAINST BIDDING DOCUMENT NO. 05/51/Q7NT/GAIL/001-II-11 DATED 13.03.2023 (TENDER ID: 2023_GAIL_148619) & COMMERCIAL CORRIGENDUM #1 DATED 28.03.2023 FOR ABOVEGROUND GI INSTALLATIONS INCLUDING LAST MILE CONNECTIVITY AT CONSUMER END AT RANCHI GA (1 YEAR ARC) FOR CGD PROJECT AT SIX GAS FOR GAIL (INDIA) LIMITED (.)

WE HEREBY ISSUE THIS FAX OF ACCEPTANCE (FOA) FOR AWARD FOR APPROX. 30% OF SCOPE OF WORK OF TENDER AT AN ESTIMATED CONTRACT VALUE OF RS. 2,17,30,923/- (INDIAN RUPEES TWO CRORE SEVENTEEN LAKHS THIRTY THOUSAND NINE HUNDRED TWENTY-THREE ONLY) EXCL. GST. GST SHALL BE PAYABLE EXTRA AS PER TENDER PROVISIONS. (PRESENT RATE OF GST@18%). THE DETAILED BREAKUP OF ABOVE ORDER VALUE IS ENCLOSED AS ANNEX-1(.)

THE COMPLETION PERIOD SHALL BE AS PER TENDER DOCUMENT(.)

PLEASE SUBMIT CONTRACT PERFORMANCE BANK GUARANTEE@ 3% OF ANNUALISED CONTRACT/ORDER VALUE [EXCLUDING GST] AS PER CL. NO.38 OF ITB OR AS PER BDS (ANNEXURE-IV TO SECTION-III OF VOL I OF II) AND CONTRACT AGREEMENT AS PER CL. NO.37 OF ITB OF TENDER DOCUMENT (.)

YOU ARE REQUESTED TO CONTACT PROJECT COORDINATOR (MR. PRATEEK MAHESHWARI, MANAGER (CGD), MECON LIMITED, EMAIL ID: pmaheshwari@mecon.co.in) FOR FURTHER INSTRUCTIONS (.)

ALL OTHER TERMS AND CONDITIONS SHALL BE AS PER BIDDING DOCUMENT & CORRIGENDUM THERE OF AS STATED ABOVE AND AS AGREED TILL DATE (.)

A DETAILED ORDER SHALL FOLLOW (.)

FOR & ON BEHALF OF GAIL (INDIA) LIMITED

(By its constituted authority)

राकेश शर्मा / RAKESH SHARMA

वरि. महाप्रबंधक (अनुबंध) / SR. GM (CONTRACTS)
मेकॉन लिमिटेड, दिल्ली / MECON LIMITED, DELHI

CC: BY COURIER TO:
M/s Embrace Gas Pipelines Pvt. Ltd.
D-175, Okhla Industrial Area, Phase-1, Delhi-110020
Tel No.: +91- 9999495557

प्रधान कार्यालय / Head Office :

राँची / Ranchi
+91-651-248 3000 (Phone)
+91-651-248 2189/248 2214 (Fax)
ranchi@meconlimited.co.in

बैंगलूर / Bangalore
+91-80-2657 1661-63 (Phone)
+91-80-2625 2000 (Phone)
+91-80-2657 6352 (Fax)
bangalore@meconlimited.co.in

मुम्बई / Mumbai
+91-22-2781 2155-58 (Phone)
+91-80-2781 2275 (Fax)
Mumbai@meconlimited.co.in

कार्यालय / Office :

कोलकाता / Kolkata
+91-33-2282 2381-82 (Phone)
+91-33-2282 4441 (Fax)
kolkata@meconlimited.co.in

चेन्नई / Chennai
+91-44-2618 4873 (Phone)
+91-44-2618 4874 (Fax)
chennai@meconlimited.co.in

Annex 1 to POA no 05/ST/Q7NT/GAIL/001-ii-11/POA-960
dtd. 15/07/23

SCR: ABOVEGROUND GI INSTALLATIONS INCLUDING LAST MILE CONNECTIVITY AT CONSUMER END AT RANCHI GA (1 YEAR ARC): Tender No.:
05/51/Q7NT/GAIL/001-ii-11, Tender ID: 2023_GAIL_148619

Sl. No.	Item Description	Item Code	Units	M/s Embrace Gas Pipelines Pvt. Ltd., Delhi		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)
1	2	3	5			
1	PE PIPELINE	A00100				
2	Pipe Laying in any unprepared surface (Katcha surface) / Normal Surface / Hard surface(all type of hard Rock) using Open cut / Molding -(without Casing) methodology.	A00101				
3	Receipt, Loading, unloading, storing, reloading, transportation, unloading, Uncoiling, stringing and laying of PE100, SDR11/17.6 line pipes of all sizes including, proper stacking, identification, and supply of accessories of all sizes & thickness like PE Bends, Saddle, Couplers, Endcaps, Tee(Equal/ Reducing), Reducer, CS / GI to PE Fittings (i.e. Transition Fittings of sizes 20 mm to 32 mm), Warning Mat (300 mm width as per attached Technical specification and QAP), etc. Handling, Stringing / uncoiling, aligning of the PE line pipe on the pipeline Right-of-Use / route ,laying / installation of PE line pipe alongwith required accessories as mentioned above as per specification wherever required depending on site condition including execution of all associated works; Storage of material in contractor's store in safe manner, pre fabrication / fabrication, access for pre fabrication / fabrication area, all procured / supplied materials for construction, consumables, equipments, labour and other inputs. In the case of free issue items, the scope also includes, receiving and loading from Owner's designated store within GA, transportation, unloading and stacking of free issue items at Contractor's store					
4	Carrying out all temporary, ancillary, auxiliary works required to make the laid PE pipeline system complete and ready for commissioning as per drawings, specifications and /or as per direction of Engineer-in-charge (EIC).					
5	Specifications, scope of work indicated in PJS and other provisions of Contract document and instructions of Engineer-in-charge, including but not limited to carrying out the following works:					
6	Surveying of route and detours required at the time of execution including marking the same in topographical sheet, preparation of construction drawings showing survey details, and submit same to Owner for review / approval.					
7	Carrying out preliminary & final survey activities for crossings encountered in pipeline route and preparation of drawings with crossing methodology etc. wherever required and submission to Owner/Engineer-in-charge for review / approval.					
8	Preparation and getting approval of execution schedules, execution procedures, drawings/ sketches/ wherever required from Owner/Engineer-in-charge and/or from concerned authority, making trial pits to determine the underground utilities/ services etc., restoration of the abandoned trial pits to original condition to entire satisfaction of Owner/Engineer-in-charge and/or concerned authority.					
9	Stacking and installation of construction markers, clearing/grading of work area, fencing, grubbing, cutting of trees, etc within work area and full filling all the requirements of various statutory/ environment authorities to their entire satisfaction.					
10	Barricading the work area as per local authorities guidelines/norms and to the entire satisfaction of Owner/ Engineer -in- charge, installation of safety signs to the satisfaction of Owner/ Engineer -in- charge and / or as per local authorities guidelines/norms.					
11	Barricading the pipeline construction area prior to execution of the works as per drawing no. MEC/23QH/05/25/M/001/011 & MEC/23QH/05/25/M/001/10 enclosed with tender document and to the entire satisfaction of owner / engineer- in -charge.					
12	Laying using open trench without casing/Molding without casing includes survey of under ground utilities (through trial pits), execution of work as per specification including Trenching to all depths by excavation in all types of soils including soft/ rocky strata and different type of pavement / footpath / roads etc. including rock breaking, chiselling or otherwise cutting etc. as required and storing excavated soil, reusable materials at designated area as directed by Engineer in charge and to a width to accommodate the pipeline as per the relevant standard/ specification etc. [The minimum depth of the top of pipeline shall be 1.0 m measured from top of pipeline to the top of undisturbed surface of the soil or as per Specification/ OISD - 226 & PNGRB latest guidelines whichever is higher]. Dewatering of trenches / pits if required as per site condition.Repairing of all damaged utilities if any, and payment of any compensation (if claimed by owner / other utility agencies)					

Sl. No.	Item Description	Item Code	Units	M/s Embrace Gas Pipelines Pvt. Ltd., Delhi		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)
13	Uncoiling / stringing & aligning of PE pipes, clamping, jointing of the pipe ends / fittings / valves by qualified personnel using approved electro-fusion techniques as per specification.					
14	Installation / lowering the pipeline in trench to required depth as per PJS, Technical Specification & drawings, supply & placement of HDPE Yellow colour warning mat (300 mm width as per attached Technical specification and QAP) over the pipeline along the complete route as per standard drawings, data sheets & technical specifications, padding around pipeline including supply of suitable padding material duly approved by EIC, backfilling to its original condition with excavated earth / borrowed select soil/sand duly approved by EIC & its compaction & crowning. At certain specific area of ROU, trench shall be backfilled & compacted and shall be made ready for motorable. All tiles/slabs/curb stones etc removed during excavation shall be placed properly and no separate payment shall be admissible against this activity. Restoration shall be carried as per separate SOR item mentioned elsewhere in the SOR or to be done by Owner / concerned authorities.					
15	The scope of work against this item also include Electro-fusion jointing of valves, fittings, saddle etc wherever required and as directed by Engineer-in-charge.					
16	The scope of work against laying of 20/32 mm pipe also includes works like making of PCC pedestal of grade (1:2:4) and size (8" depth X6" length X4" width) which may slightly vary in dimension and volumetric quantities of PCC and may increase up to 25% more as per site requirement., supply and installation of GI Sleeve (Heavy (C-Class) as per IS-1239), supply & filling of sand and installation of TF (along with supply).					
17	Flushing, Pneumatic testing, purging with nitrogen and commissioning as per specification and approved procedures providing all tools and tackles, nitrogen, instruments, manpower and other related accessories and as per the instructions of the Engineer-in-charge.					
18	Final clean-up of right-of-use or area disturbed by contractor during their construction activities for laying of pipeline works and disposal of debris and surplus material to designated disposal areas within GA and backfilling of trench and compaction of the same as per satisfaction of Owner and / or as directed by Engineer-in-charge.					
19	Maintaining the worthiness of the complete pipelines system along with associated facilities till hand over to the OWNER/ EIC and to carry out rectification/ replacement works for any defect or failures reported by OWNER during defect liability period.					
20	Handing over the completed works to Owner for their operation/ use, reconciliation of material area wise and obtaining "no objection certificate" from Owner/ PMC.					
21	Preparation and submission of Daily progress report, Laying Graphs / PE line cards on daily basis and get it reviewed/ inspected by Owner/ Owner representative/ PMC.					
22	On completion of gas charging of pipelines. Preparation and submission of As-built drawings, crossings details, termination, utility graphs and deviation statements.					
23	In case, the minimum required depth is not possible due to site condition, necessary mitigation measures shall be required to be taken by contractor in consultation with EIC as per PNGRB Guidelines. No additional payment shall be admissible against the same.					
24	Submission of all documents required for contract closure as mentioned in the contract document as per guidelines of the Owner/PMC.					
25	Any other activities not mentioned / covered explicitly above, but otherwise required for satisfactory completion / operation / safety / statutory / maintenance of the works shall also be covered under the scope of work and has to be completed by the Contractor within specified time schedule at no extra cost to Owner. All the work shall be executed in accordance with the provision of contract and/or latest guidelines of the statutory authority, whichever is stringent.					
26	20 mm PE 100 pipe by Open Cut Method (Laying of 20mm includes ground connectivity (GC)/Service Line to all the customers enroute). Note: Flushing, Testing, commissioning of 20mm and 32mm shall be done together.	A00102	Meter	450	324.03	145,814
27	20 mm PE 100 pipe by Moiling without casing Method (Laying of 20mm includes ground connectivity/Service Line to all the customers enroute). Note: Flushing, Testing, commissioning of 20mm and 32mm shall be done together.	A00103	Meter	3,600	409.70	1,474,902

Sl. No.	Item Description	Item Code	Units	M/s Embrace Gas Pipelines Pvt. Ltd., Delhi		
				Quantity	Unit Rate (Inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)
28	32 mm PE 100 pipe by Open Cut Method (Laying of 32mm shall accompany service line/GC with 20mm to the customers enroute). Note: Flushing, Testing, commissioning of 32mm and 20mm shall be done together..	A00104	Meter	450	335.21	150,842
29	32 mm PE 100 pipe by Moiling without casing Method (Laying of 32mm shall accompany service line/GC with 20mm to the customers enroute). Note: Flushing, Testing, commissioning of 32mm and 20mm shall be done together.	A00105	Meter	7,200	424.59	3,057,070
30	For laying of 20 mm/32 mm branch PE pipe after taking either online tapping from Gas charged run/ service pipeline of size up to 63 mm or online tapping from positive pressurised [up to 2 bar(g)] condition run/ service pipeline of size up to 63 mm using required size of Saddle: Excavation of all size & depth in all type of under ground soil strata including pebbles, cobbles, gravels, boulders, soft & hard rock etc. to make the pit for installation of Saddle, carrying out installation & fixting of required size of Saddle, Reducer/ Expander, etc., where run/ service PE pipeline is in charged/Pressurised condition. <i>Installation/ Laying of 20 mm/32 mm PE pipe from Saddle to Transition fittings (CS / GI Pipe to PE Pipe) including supply and installation of GI Sleeve of required sizes (Heavy (C-Class) as per IS-1239), supply & filling of sand, supply & installation of Transition fittings of required sizes (CS / GI Pipe to PE Pipe) including blinding by end cap of pipe near TF shall be carried out as per activity description mentioned above for SOR Item No. A00102, A00103, A00104 & A00105 as applicable and payment shall be made accordingly for these activities. The scope of work against installation/ laying of 20 mm/ 32 mm pipe also includes works like making of PCC pedestal of grade (1:2:4) and size 300mm(Length)X 200mm(Width) X Height (H)), where H>=300mm & will be as per site condition.</i> Note:- 1) The above Item rate is valid for online Tapping including hookup with run/ service/ branch PE Pipeline along with supply of Saddle, Reducer/ Expander, other PE fittings required specifically at tapping point only, when the existing network is already charged/Pressurised condition. Online tapping for Branch/ Service Line/Ground Connectivity to be given to customers shall be paid during connection of Houses (Individual) or Apartment/Society. 2) Flushing, Testing, commissioning of 32mm and 20mm shall be done together or as per instruction of EIC and the payment shall be made as per SOR item rate A00102, A00103, A00104 & A00105 as applicable, mentioned elsewhere in the SOR.	A00106	Nos	300	2,048.48	614,543
31	For laying of 20 mm/32 mm branch PE pipe after taking either online tapping from Gas charged run/ service pipeline of size up to 63 mm or online tapping from positive pressurised [up to 2 bar(g)] condition run/ service pipeline of size up to 63 mm using required size of Equal/ Unequal Tee: Excavation of all size & depth in all type of under ground soil strata including pebbles, cobbles, gravels, boulders, soft & hard rock etc. to make the pit for installation of Equal/ Unequal Tee, carrying out installation & fixting of required size of Equal/ Unequal Tee, Reducer/ Expander, etc., where run/ service PE pipeline is in charged/Pressurised condition. <i>Installation/ Laying of 20 mm/32 mm PE pipe from Saddle to Transition fittings (CS / GI Pipe to PE Pipe) including supply and installation of GI Sleeve of required sizes (Heavy (C-Class) as per IS-1239), supply & filling of sand, supply & installation of Transition fittings of required sizes (CS / GI Pipe to PE Pipe) including blinding by end cap of pipe near TF shall be carried out as per activity description mentioned above for SOR Item No. A00102, A00103, A00104 & A00105 as applicable and payment shall be made accordingly for these activities. The scope of work against installation/ laying of 20 mm/ 32 mm pipe also includes works like making of PCC pedestal of grade (1:2:4) and size 300mm(Length)X 200mm(Width) X Height (H)), where H>=300mm & will be as per site condition.</i> Note:- 1) The above Item rate is valid for online Tapping including hookup with run/ service/ branch PE Pipeline along with supply of Equal/ Unequal Tee, Reducer/ Expander, other PE fittings required specifically at tapping point only, when the existing network is already charged/Pressurised condition. Online tapping for Branch/ Service Line/Ground Connectivity to be given to customers shall be paid during connection of Houses (Individual) or Apartment/Society. 2) Flushing, Testing, commissioning of 32mm and 20mm shall be done together or as per instruction of EIC and the payment shall be made as per SOR item rate A00102, A00103, A00104 & A00105 as applicable, mentioned elsewhere in the SOR.	A00107	Nos	300	1,973.99	592,196

Sl. No.	Item Description	Item Code	Units	M/s Embrace Gas Pipelines Pvt. Ltd., Delhi		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)
32	Note: i) The lengths of pipelines are tentative, it may increase or decrease as per site requirement or as per instruction of EIC. ii) For restoration of asphalt / concrete roads, the item for construction of asphalt top / concrete top / red stone / paver/RCC/CC shall be paid separately as per the rates quoted for the same elsewhere in the SOR. iii) The Scope of work will start from tapping saddle/Tee on existing/laid PE pipe of various sizes of existing network to Transition Fitting (PE to GI). The tapping saddle/Tee, Transition Fittings and other fittings shall be included in the measurement under relevant SOR. iv) Bidder has to familiarise themselves the entire locations /region/ charge area within the GA and ascertain all type of eventuality/uncertainty before quoting their bid.					
33	PE pipe laying of sizes 20 mm/ 32 mm inside Private Property i.e Multistory buildings / apartments with no movement of Heavy Vehicles, surrounded with Boundary wall where pipe top cover could not be achieved 600 mm.	A00200				
34	Minimum pipe top cover of 375 mm is required and the line pressure shall not exceed 110mbar.					
35	Necessary mitigation measures such as RCC slab (150mm thick and 300mm width) at the top, of the RCC slab of the roof of basement shall be treated as bottom. There shall be sand filling across three sides of the line pipe of 100mm each shall be required to be taken by contractor in consultation with EIC as per latest PNGRB Guidelines. No additional payment shall be admissible against the same.					
36	Receipt, Loading, unloading, storing, reloading, transportation, unloading, Uncoiling, stringing and laying of PE100, SDR11/17.6 line pipes of all sizes including, proper stacking, identification, and supply of accessories of all sizes & thickness like PE Bends, Saddle, Couplers, Endcaps, Tee(Equal/ Reducing), Reducer, CS / GI to PE Fittings (i.e. Transition Fittings of sizes 20 mm to 32 mm), Warning Mat (300 mm width as per attached Technical specification and QAP) etc. Handling, Stringing / uncoiling, aligning of the PE line pipe on the pipeline Right-of-Use / route ,laying / installation of PE line pipe alongwith required accessories as mentioned above as per specification wherever required depending on site condition including execution of all works; Storage of material in contractor's store, fabrication, access for construction procurement and supply of all materials, consumables, equipments, labour and other inputs. In the case of free issue items, the scope also includes, receiving and loading from Owner's designated store, transportation, unloading and stacking of free issue items at Contractor's store					
37	Carrying out all temporary, ancillary, auxiliary works required to make the PE pipeline ready for commissioning as per drawing.					
38	Surveying of route and detours required at the time of execution, preparation of construction drawings showing survey details, and submit same to Owner for review / approval.					
39	Preparation and getting approval of schedules, execution procedures, drawings/ sketches/ wherever required, making trial pits to determine the underground utilities/ services etc., restoration of the abandoned trial pits to original condition.					
40	Barricading the pipeline construction area prior to execution of the works as per drawing no. MEC/23QH/05/25/M/000/011 & MEC/23QH/05/25/M/000/10 enclosed with tender document and to the entire satisfaction of owner / engineer- in -charge.					
41	Laying using open trench without casing includes survey of under ground utilities (through trial pits), execution of work as per specification including Trenching to all depths by excavation in all types of soils including soft/ rocky strata and different type of pavement / footpath / roads etc. including rock breaking, chiselling or otherwise cutting etc. as required and storing excavated soil, reusable materials at designated area as directed by Engineer in charge and to a width to accommodate the pipeline as per the relevant standard/ specification etc. [The minimum depth of the top of pipeline shall be 1.0 m measured from top of pipeline to the top of undisturbed surface of the soil or as per Specification/ OISD- 226 & PNGRB latest guidelines whichever is higher]. Dewatering of trenches / pits if required as per site condition. Repairing of all damaged utilities if any, and payment of any compensation (if claimed by owner / other utility agencies)					
42	Uncoiling / stringing & aligning of PE pipes, clamping, jointing of the pipe ends / fittings / valves by qualified personnel using approved electro-fusion techniques as per specification.					

Sl. No.	Item Description	Item Code	Units	M/s Embrace Gas Pipelines Pvt. Ltd., Delhi		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)
43	Installation / lowering the pipeline in trench to required depth, supply & placement of HDPE Yellow colour warning mat (300 mm width as per attached Technical specification and QAP) over the pipeline along the complete route as per standard drawing and backfilling to its original condition with excavated earth / borrowed select soil / sand duly approved by EIC & its compaction & crowning. At certain specific area of ROU, trench shall be backfilled & compacted and shall be made ready for motorable. All tiles / slabs / curb stones etc removed during excavation shall be placed properly and no separate payment shall be admissible against this activity. Restoration shall be carried as per separate SOR item mentioned elsewhere in the SOR or to be done by Owner / concerned authorities.					
44	The scope of work against laying of 20 mm /32 mm pipe also includes works like making of PCC pedestal of grade (1:2:4) and size (300mm(L)X200mm(W) XHeight (H)), (H>=300mm & will be as per site condition), supply and installation of GI Sleeve (Heavy (C-Class) as per IS-1239), filling of sand and installation of TF (along with supply).					
45	Pneumatic testing, purging with nitrogen and commissioning as per specification and approved procedures providing all tools and tackles, nitrogen, instruments, manpower and other related accessories and as per the instructions of the Engineer-in-charge.					
46	Final clean-up of right-of-use or area disturbed by contractor during their construction activities for laying of pipeline works and disposal of debris and surplus material to designated disposal areas and backfilling of trench and compaction of the same as per satisfaction of Owner and / or as directed by Engineer-in-charge.					
47	Maintaining the completed pipelines and installation for any defect or failures during defect liability period.					
48	Handing over the completed works to Owner for their operation/ use, reconciliation of material area wise and obtaining "no objection certificate" from Owner/ Consultant.					
49	On completion of gas charging of pipelines. Preparation and submission of As-built drawings, crossings details, termination, utility graphs and deviation statements.					
50	Any other activities not mentioned / covered explicitly above, but otherwise required for satisfactory completion / operation / safety / statutory / maintenance of the works shall also be covered under the scope of work and has to be completed by the Contractor within specified schedule at no extra cost to Owner. All the work shall be executed in accordance with the provision of contract.					
51	20 mm PE 100 pipe	A00201	Meter	450	543.78	244,700
52	32 mm PE 100 pipe	A00202	Meter	720	588.47	423,699
54	Civil Work/Cutting/ Breaking and Restoration	A00300				
55	Restoration of the roads, pavements, channels, footpaths, tiles, stones etc. to original condition including supply of the approved quality material required, as per local authorities norms, obtaining NOC from land owners/ third party inspection agencies/Consultant designated by GAIL and to the satisfaction of Engineer-in-charge.					
56	Asphalting	A00301	Meter	22	327.76	7,211
57	Breaking/Cutting of Cement Concrete-Making provision for PE Pipe laying as per site requirement and as per instruction of EIC.	A00302	Meter	300	130.36	39,107
58	Cement Concrete restoration as per scope of work (Excluding Breaking/Cutting)	A00303	Meter	300	916.23	274,868
59	Breaking/Cutting of RCC Core- Making provision for PE Pipe laying as per site requirement and as per instruction of EIC.	A00304	Meter	225	204.85	46,091
60	RCC restoration as per scope of work (Excluding Breaking/Cutting)	A00305	Meter	450	1,117.35	502,808
61	Tiles/ Paver/ Blocks/ Curb Stones, Red sand stone	A00306	Meter	1,650	335.21	553,088
62	Brick Soling/ Stone Soling, etc	A00307	Meter	300	238.37	71,510
63	Providing, hoisting and placing of 75 mm thick precast reinforced cement concrete slab of M-20 grade over pipeline as mechanical protection including the cost of required centering, shuttering, reinforcement complete as per tender drawing and direction of the EIC. Note:- Size (Length x Width) of the precast slab will be decided as per site condition and as per instruction of EIC. Precast slab will be placed in multiple number and various location as per site condition and as per instruction of EIC.	A00308	Cubic Meter	3	10,428.60	31,286

Sl. No.	Item Description	Item Code	Units	M/s Embrace Gas Pipelines Pvt. Ltd., Delhi		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)
64	Valve Pit Chamber (Brick Masonry) Constructing valve pit chamber in brick masonry with cement mortar 1:4 (1 cement : 4 coarse sand) over 150 mm thick RCC Foundation along with 75 mm thick levelling course in 1:4:8 mix including 16 mm thick plastering with cement mortar 1:3 (1 cement : 3 coarse sand) and PCC pedestal for Valve support (if required) complete as per specification, drawings and direction of EIC. Valve Pit Chamber shall be covered with 150 mm thick RCC top slab of M-25 grade with manhole cover (medium duty) along with frame as per IS 1726. Rate to include cost of all labour, tools, tackles, equipment, hire charges, supply of all materials such as minimum 45 grade cement, reinforcement, CI manhole cover, PVC coated rungs, inserts including excavation and backfilling, masonry works, plastering, etc. with all bye works and sundry works.					
65	Type I : Inside size 1500 mm x 1000 mm and upto 1500 mm deep	A00309	EACH	1	29,796.00	29,796
66	Type II : Inside size 1500 mm x 1000 mm and greater thano 1500 mm deep	A00310	EACH	1	37,245.00	37,245
67	Valve Pit Chamber (RCC) Constructing valve pit chamber in RCC of grade M-25 over 75 mm thick levelling course in 1:4:8 mix including 16 mm thick plastering with cement mortar 1:3 (1 cement : 3 coarse sand) and PCC pedestal for Valve support (if required) complete as per specification, drawings and direction of EIC. Valve Pit Chamber shall be covered with 150 mm thick RCC top slab of M-25 grade with manhole cover (medium duty) along with frame as per IS 1726. Rate to include cost of all labour, tools, tackles, equipment, hire charges, supply of all materials such as minimum 45 grade cement, reinforcement, CI manhole cover, PVC coated rungs, inserts including excavation and backfilling, masonry works, plastering, etc. with all bye works and sundry works.					
68	Type I : Inside size 1500 mm x 1000 mm and upto 1500 mm deep	A00311	EACH	2	55,867.50	111,735
69	Type II : Inside size 1500 mm x 1000 mm and greater thano 1500 mm deep	A00312	EACH	1	70,765.50	70,766
70	Pipe Laying in any unprepared surface (Katcha surface) / Normal Surface / Hard surface(all type of hard Rock) using open cut with casing / Molling with Casing methodology.	A00400				
71	Laying of all PE pipe (PE 100 SDR11), Including supply of HDPE casing pipe, Saddle, Couplers, End caps etc. (As per Particular job specification.)					
72	Survey of under ground utilities, execution of the work as per specification, including excavation of pits molling with the hole size not exceeding 20% of the pipe dia, jointing and insertion of carrier pipe with casing, testing & commissioning and restoration of the pits to original condition, submission of As-Built Graph as per specifications and the instruction of Engineer-in-charge.					
73	20 mm PE 100 pipe (in 50 mm dia. HDPE Casing Pipe) by open cut Method with casing	A00401	Meter	45	502.81	22,626
74	20 mm PE 100 pipe (in 50 mm dia. HDPE Casing Pipe) by Molling Method with casing	A00402	Meter	45	588.47	26,481
75	32 mm PE 100 pipe (in 75 mm dia. HDPE Casing Pipe)by open cut Method with casing	A00403	Meter	22	551.23	12,127
76	32 mm PE 100 pipe (in 75 mm dia. HDPE Casing Pipe)by Molling Method with casing	A00404	Meter	22	648.06	14,257
77	Supply of GI/ Concrete Sleeves (wherever required as a Special Case as per instructions of the Engineer-in-charge)	A00500				
78	Supply, installation of sleeve, insertion of pipe, sealing the annulars area, firm fixing of Sleeves with concrete mix. Breaking through any obstructions and their subsequent restoration, as per specifications and instructions of the Engineer-in-charge.					
79	GI Sleeves /Concrete Sleeves					
80	2 1/2" NB, 1' Length	A00501	Nos.	3	216.02	648
81	4" NB, 1' Length	A00502	Nos.	3	379.90	1,140
82	2 1/2" NB, 3' Length	A00503	Nos.	2	521.43	1,043
83	4" NB, 3' Length	A00504	Nos.	2	931.13	1,862
84	MS Enamel Coated					
85	4" NB, 3' Length	A00505	Nos.	1	871.53	872
86	Concrete Sleeve (NP-2 Class)					
87	4" NB, 3' Length	A00506	Nos.	1	216.02	216
88	6" NB, 3' Length	A00507	Nos.	1	350.10	350
89	Note:-The decision regarding use of type of sleeves to be used at various locations shall be made by Engineer- In-Charge (EIC) / Owner					
90	Supply of Copper Jumper wire(wherever required to maintain the continuity of Pipeline to be laid)	A00600				
91	Supply, Installation, Jointing using Soldering/Pin Brazing/other technique to connect and Integrate the PE pipeline laid for traceability purpose					

Sl. No.	Item Description	Item Code	Units	M/s Embrace Gas Pipelines Pvt. Ltd., Delhi		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)
92	1.2 MM Copper Jumper insulated wire(as per TS wherever required)	A00601	Meter	150	119.18	17,878
93	Fabrication & Installation of Markers	A00700				
94	RCC Route Markers					
95	Supply, fabrication and installation of RCC route markers including application of approved color and quality of primer and paint as per the standard drawing, along the route including all associated civil works such as excavation and construction in all types of soils, construction and pedestals and grouting with concrete. These works shall be carried out as per installation methodology approved by EIC based on site requirement.	A00701	Nos.	135	446.94	60,337
96	Steel Pole Markers with Foundation					
97	Supply, fabrication and installation of Steel Pole markers including application of approved color and quality of primer and paint as per the standard drawings including all associated civil works such as excavation and construction in all types of soils, construction and pedestals and grouting with concrete, cleaning, stencil letter cutting of lettering, numbers, direction, etc. These works shall be carried out as per installation methodology approved by EIC based on site requirement.	A00702	Nos.	30	2,487.97	74,639
98	Warning Plate Markers					
99	Supply, fabrication and installation of plate markers including application of approved color and quality of primer and paint, stencil letter cutting of lettering, numbers, direction, etc. as per the standard drawings to be installed near regulator. These works shall be carried out as per installation methodology approved by EIC based on site requirement.	A00703	Nos.	1,350	461.84	623,481
100	Paver Block-Tiles Markers					
101	Supply, fabrication and installation of Paver Block-Tiles markers of standard size as per industry practice along the route on Paver Block/Tiles on foot Path/As per the instruction of EIC including application of approved color and quality of primer and paint, stencil letter cutting of lettering, numbers, direction, etc. Carrying out all associated works for fixing / grouting / anchoring the marker with surface. These works shall be carried out as per installation methodology approved by EIC based on site requirement.	A00704	Nos.	30	432.04	12,961
102	Crossing of Sewage Drains/Nala alongside of Independent houses where drains/Nalas are being encountered adjacent to houses	A00800				
103	The scope of work include supply of Medium duty GI Casing pipes of 2.5 inches, alongwith padding with sand stone and civil works associated for construction of cover slab as per drawing No. MEC/23VV/05/25/M/Bharatpur/Typ/001.	A00801	Nos.	150	2,979.60	446,940
104	PNG Connection to Domestic/ Commercial/ Industrial Consumers	B00100				
105	Installation of Carbon Steel (CS)/ GI Service Pipe	B00101				
106	Supply/Receipt, Loading, unloading, storing, reloading, transportation, unloading at work site and laying of either Owner supplied Powder coated GI pipes or Contractor supplied Powder coated GI pipes & carbon steel pipes of all sizes & thickness including supply of all associated compatible accessories of all sizes & thickness like Elbows, Tees, unions, sockets, reducers, GI plugs, Sleeves etc., installation of GI line (alongwith installation of required accessories as mentioned above) of all sizes & thickness, including fabrication with supply of all materials, consumables, labour and other incidental works. The scope of work also includes installation of Regulators (4/6 bar to 100/21 mbar and/or 100 mbar to 21 mbar) which shall be provided as free issue item. Installation of all sizes of isolation Valves (which are to be procured & supplied by contractor mentioned elsewhere as separate items in the SOR). Carrying out all temporary, ancillary, auxiliary works required to make the GI line complete and ready for commissioning as per drawings specifications. Handling, aligning, fabrication & installation of the GI Pipes in the work area alongwith required associated compatible accessories as mentioned above as per site condition as per instruction of EIC. Execution of all associated works; Supply of all materials, consumables, equipments, labour and other inputs; Storage of material in contractor's store in safe manner, pre-fabrication, access for construction/ fabrication work area. In the case of free issue items, the scope also includes, receiving and loading from Owner's designated store within GA, transportation, unloading and stacking of free issue items at Contractor's store in safe condition.					
107	Scope of work indicated in PJS and other provisions of Contract document and instructions of Engineer-in-charge, including but not limited to carrying out the following works:					
108	Preparation and getting approval of execution schedules, execution procedures, drawings/ sketches from Owner/Engineer-in-charge and/or from concerned authority.					

Sl. No.	Item Description	Item Code	Units	M/s Embrace Gas Pipelines Pvt. Ltd., Delhi		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)
109	Finalisation of optimum route with consent of customer, from transition fitting to cooking oven/ appliance.					
110	Making temporary but stable platforms/ scaffolding/ rope ladders and all other safety measures including safety belts wherever required.					
111	Installation of GI Pipes, Fittings, including NPT threading, painting as specified.					
112	Drillings of holes through walls (Brick, RCC), Granite, Marble, Glass Cutting with proper heavy duty hammer drill machine tools and tackle, using proper sealant /grout material colors to match the original replacement of damages during drilling, restoring the area to original condition.					
113	In case of Multistorey building where RCC Slab/Visor/Sunshade/Chhajja restrict riser installation then separate payment for cement concrete/ RCC core-cutting with heavy duty drill machine and their restoration shall be paid under SOR items 2.2(a), 2.2(b), 2.2(c) & 2.2(d) and as per instruction and direction of EIC					
114	Supply & Fixing of approved clamps, Dowell Plugs with screws, grout material, suitable thread sealant i.e. Teflon Tape/ lock tight, drilling of holes through tiles/ wood/ marble/ Granite etc. jointing of PE to above Ground service GI pipes, flushing, pneumatic testing, purging with Nitrogen (including supply of Nitrogen as inert gas by contractor) and commissioning or make ready for commissioning of the complete system as per specification and as per instruction of EIC.					
115	Touchup Painting/Painting of outer surface of GI pipe of all sizes along with fittings after proper surface finish by one coat of approved primer paint and two coats of approved synthetic enamel paint complete as per specification & direction of EIC. Restoring the wall surface to original condition to the entire satisfaction of EIC and getting NOC from end user/Consumer/ concerned authorities/ Authorised competent person of the Society.					
116	All above activities to be carried out as per specification to the complete satisfaction of consumer & as desired by Engineer-in-charge.					
117	Handing over the completed works to GAIL for operation/ use, reconciliation of material area wise and obtaining "no objection certificate" from GAIL / GAIL Representative at Site/ CPMC.					
118	Any other activity not mentioned/ covered, explicitly above, but otherwise required for satisfactory completion/ safety/ statutory/ maintenance of works shall also be covered under scope of work and has to be completed by contractor within specified schedule time.					
119	½" All floors (Including connectivity from TF to regulator.)- with supply of GI Pipes by Contractor	B00102	Meter	4,500	342.65	1,541,943
120	½" All floors (Including connectivity from TF to regulator.)- with supply of GI Pipes by Owner on Free Issue Basis.	B00103	Meter	15,000	230.92	3,463,785
121	¾" All Floors (Including Installation of Risers)- with supply of GI Pipes by Contractor	B00104	Meter	3,000	368.73	1,106,177
122	¾" All Floors (Including Installation of Risers) with supply of GI Pipes by Owner on Free Issue Basis	B00105	Meter	9,600	230.92	2,216,822
123	1" Dia All Floors ((for Riser Installations & For Commercial Connections)- with supply of GI Pipes by Contractor (Rates are inclusive of installation by threading, however incase of pipe joining by welding as per direction of EIC, payment for Welding, NDT will be made separately)	B00106	Meter	150	376.17	56,426
124	1" Dia All Floors ((for Riser Installations & For Commercial Connections)- with supply of GI Pipes by Owner on Free Issue Basis (Rates are inclusive of installation by threading, however incase of pipe joining by welding as per direction of EIC, payment for Welding, NDT will be made separately)	B00107	Meter	90	148.98	13,408
125	Supply & laying/ installation including fabrication of Contractor supplied Carbon steel piping system of all sizes & thickness including fabrication & installation of required compatible isolation ball valves fittings, flanges, gaskets, valves, NRV, Strainer, couplings, etc of all sizes, thickness & ANSI pressure rating including Pressure Gauge (PG) etc. as per instruction of EIC. Supply of all type of manpower, machineries, materials, consumables, and other incidental works to carry out & complete the works at site as per instruction of EIC. Flushing, Pneumatic testing, purging with nitrogen (including supply of Nitrogen as inert gas by contractor) and commissioning or make ready for commissioning as per specification and as per instruction of EIC. Any other activity not mentioned/ covered, explicitly above, but otherwise required for	B00108	Meter	30	484.19	14,526

Sl. No.	Item Description	Item Code	Units	M/s Embrace Gas Pipelines Pvt. Ltd., Delhi		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)
126	Supply, laying/ installation & visual testing including fabrication of Contractor supplied Carbon steel piping system of all sizes & thickness including fabrication, installation & visual testing of required compatible fittings, flanges, gaskets, valves, NRV, Strainer, couplings, etc of all sizes, thickness & ANSI pressure rating including Pressure Gauge (PG) etc. as per instruction of EIC. Supply of all type of manpower, machineries, materials, consumables, and other incidental works to carry out & complete the works at site as per instruction of EIC. Flushing, Pneumatic testing, purging with nitrogen (including supply of Nitrogen as inert gas by contractor) and commissioning or make ready for commissioning as per specification and as per instruction of EIC. Any other activity not mentioned/ covered, explicitly above, but otherwise required for satisfactory completion/ safety/ statutory/ maintenance of works shall also be covered under scope of work and has to be completed by contractor within specified schedule time. - 2" Dia All Floors (For Commercial & Industrial Connections)- (Payment for Welding, NDT-Radiography will be made separately mentioned elsewhere in the SOR)	B00109	Meter	30	633.17	18,995
127	Carrying out Welding of GI/CS Pipes as per latest applicable code & standard for above SOR items B00106, B00107, B00108 & B00109 as per site requirement and instruction of EIC	B00110	Inch-Dia	225	111.74	25,140
128	Carrying out NDT/Radiography of welded joints of CS/GI Pipes as per latest applicable code & standard for above SOR items B00106, B00107, B00108 & B00109 as per site requirement and instruction of EIC	B00111	Inch-Dia	225	22.35	5,028
129	Supply of Nitrogen as inert gas for preservation at positive pressure and/or other works as per site requirement and instruction of EIC (wherever supply of Nitrogen is not covered under the scope of Bidder mentioned elsewhere in the SOR).	B00112	Cubic Meter	75	111.74	8,380
130	Note:- i) Refer Particular Job Specification for supply items. ii) The quantity measurement shall be from the outlet of the Transition Fitting (TF) upto the Meter. All intermediate CS fittings & valves, GI fittings & valves (excluding Flexible Hose / Anaconda, meter and regulator) shall be considered while measuring length of CS/GI Pipes. iii) Supply of isolation Ball Valves, shall be paid as a separate SOR Item. iv) Supply of CS fittings & Valves for 1 1/2" & 2" CS piping [SOR ITEM B00108 & B00109] shall be paid as a separate SOR Item. v) In case of SOR items B00103, B00105 & B00107 above (under SOR item No.- B00101), owner shall supply Plain or Powder Coated GI Pipes (as free issue) remaining scope of supplies of fittings etc. including all associated works shall be as per item nos.-a, c & e (under SOR item No.- B00101)					
131	Cutting/ Breaking and Restoration	B00200				
132	In case of Multistorey building where RCC Slab/Visor/Sunshade/Chhajja restrict riser installation then separate payment for core-cutting with heavy duty drill machine shall be paid under below SOR item and as per instruction and direction of EIC					
133	Breaking/Cutting of Cement Concrete-Making provision for GI Pipe laying	B00201	Inch	450	5.21	2,346
134	Cement Concrete restoration as per scope of work (Excluding Breaking/Cutting)	B00202	Inch	450	26.07	11,732
135	Breaking/Cutting of RCC Core- Making provision for GI Pipe laying	B00203	Inch	300	7.45	2,235
136	RCC restoration as per scope of work (Excluding Breaking/Cutting)	B00204	Inch	300	33.52	10,056
137	Supply of Valves and fittings for Carrying out connection[(For Commercial & Industrial Connections)	B00300				
138	Supply of valves and fittings as per Technical Specification and as directed by EIC					
139	Isolation CS Ball Valve 1 1/2 " (1.5") NB, SWE/FE, ANSI pressure class rating 150# / 800# [as per Piping Material Specification (PMS) & Datasheet]	B00301	Nos.	3	681.58	2,045
140	Isolation CS Ball Valve 2 " NB, BWE/FE, ANSI pressure class rating 150# (as per PMS & Datasheet)	B00302	Nos.	3	908.78	2,726
141	WNRF Flange -1 1/2 " (1.5") NB, (as per PMS)	B00303	Nos.	2	335.21	670
142	WNRF Flange -2" NB, ANSI pressure class rating 150# / 800# (as per PMS)	B00304	Nos.	9	573.57	5,162
143	Elbow -1 1/2 " (1.5") NB, SWE (as per PMS)	B00305	Nos.	9	633.17	5,698
144	Elbow -2" NB, BWE, ANSI pressure class rating 150# (as per PMS)	B00306	Nos.	9	893.88	8,045
145	Tee -Equal -1.5"x1.5"x1.5" NB, SWE, (as per PMS)	B00307	Nos.	4	744.90	2,980
146	Tee -Equal -2"x2"x2" NB, BWE, ANSI pressure class rating 150# (as per PMS)	B00308	Nos.	4	1,117.35	4,469
147	NRV 1.5" NB, SWE/FE, ANSI pressure class rating 150# / 800# (as per PMS & Datasheet)	B00309	Nos.	4	968.37	3,873
148	NRV 2" NB, BWE/FE, ANSI pressure class rating 150# (as per PMS & Datasheet)	B00310	Nos.	4	1,489.80	5,959
149	Strainer 1.5"NB, SWE/FE, (as per PMS & Datasheet)	B00311	Nos.	4	744.90	2,980
150	Strainer 2"NB, BWE/FE, ANSI pressure class rating 150# (as per PMS & Datasheet)	B00312	Nos.	4	1,042.86	4,171
151	SS 304 Spiral wound Gasket 1" NB as per specification/ relevant ASME code.	B00313	Nos.	9	37.25	335

Sl. No.	Item Description	Item Code	Units	M/s Embrace Gas Pipelines Pvt. Ltd., Delhi		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)
152	SS 304 Spiral wound Gasket 1.5" NB as per specification/ relevant ASME code.	B00314	Nos.	9	48.42	436
153	SS 304 Spiral wound Gasket 2" NB as per specification/ relevant ASME code.	B00315	Nos.	15	67.04	1,006
154	Reducer 2"x1.5" NB, BWE x SWE, as per PMS	B00316	Nos.	4	104.29	417
155	Reducer 1.5"x1" NB, SWE, as per PMS	B00317	Nos.	4	70.77	283
156	Reducer 2"x1" NB, BWE x SWE, as per PMS	B00318	Nos.	4	93.11	372
157	Full coupling of 1.5" NB as per PMS	B00319	Nos.	4	186.23	745
158	Half coupling of 1.5" NB as per PMS	B00320	Nos.	4	111.74	447
159	Full coupling of 1" NB as per PMS	B00321	Nos.	4	134.08	536
160	Half coupling of 1" NB as per PMS	B00322	Nos.	4	67.04	268
161	Stud & Nut for connection of 1.5" NB SWRF Flanges of ANSI pressure class rating 150# 800# (as per PMS & relevant code)	B00323	Nos.	25	74.49	1,862
162	Stud & Nut for connection of 2" NB WNR Flanges of ANSI pressure class rating 150# (as per PMS & relevant code)	B00324	Nos.	52	111.74	5,810
163	Supply of Pressure Gauge for maximum operating pressure 6 bar(g) as per specification of approved make	B00325	Nos.	2	3,724.50	7,449
164	Note:- Before procurement of all above supply items by contractor, quantities to be finalised by contractor and approved by the GAIL/PMC.					
165	Supply, Installation, Testing & Commissioning of Copper Service Pipes					
166	Supply and installation of copper tubing and installation of Appliance Ball valves as per Technical specification and alongwith associated accessories/fittings including brass fittings at the outlet of the meter and at the entry of appliance valve as per satisfaction and instruction of EIC. The copper tube and fittings shall be procured from approved vendors who have supplied these items for similar application earlier and with prior approved of Owner / PMC.	B00400				
167	Copper tube shall be installed from the downstream of meter upto the isolation/ appliance valve before the customers' appliance as per requirement and to the satisfaction of EIC. The Contractor to provide all equipment, tools & tackles and associated material required necessary to execute the work in an efficient manner by cutting, cleaning, flux application, soldering and lacquering. The work includes supply of all tools, tackles and consumables including clamps for fixing the tubes and restoration of the work area to the satisfaction of the customer.					
168	12.0 mm OD x 0.6 mm wall thickness	B00401	Meter	375	394.80	148,049
169	Supply, Installation, Testing & Commissioning of Multi Layer Composite (MLC) Pipes					
170	Supply and installation of MLC Pipe as per ISO17484-1 latest standard and installation of Appliance Ball valves as per technical specification alongwith associated accessories/fittings including brass fittings at the outlet of the meter and at the entry of appliance valve as per satisfaction and instruction of EIC. The MLC Pipe and fittings shall be procured from approved vendors or from those vendors, who have supplied these items for similar application earlier and with prior approved of Owner / PMC.					
171	MLC Pipe shall be installed from the downstream of meter upto the isolation/ appliance valve before the customer's appliance as per requirement and to the satisfaction of EIC. The Contractor to provide all equipment, tools & tackles and associated material required necessary to execute the work in an efficient manner by cutting, cleaning, Bending, Fixing with clamp etc. The work includes supply of all tools, tackles and consumables including clamps for fixing the MLC pipe and restoration of the work area to the satisfaction of the customer.					
172	16.0 mm OD	B00501	Meter	195	223.47	43,577
173	Note: i) Supply of Appliance Ball Valves shall be paid as a separate SOR Item. ii) SOR item No. B00400 & B00500 shall be carried out including supply of materials, only after getting instruction / approval from EIC.					
174	Installation of Regulator, Meter, Flexible Hose & Conversion of Domestic Appliance:					
175	Installation & fixing of meters & regulators (100 m bar to 21 m bar, wherever required) with associated inlet connections/ fittings, valves, approved meter brackets and other supports by proper scaffolding/ grouting, Restoration of the work area to its original	B00601	Nos.	3,000	186.23	558,675
176	Conversion of Domestic Appliances Carrying out the complete works starts from outlet of meters which includes installation of GI pipe, Appliance valve etc & other supports by proper grouting, Restoring the area to original complete as per specification. The work also includes installation and supply of Steel reinforced Flexible Hose as per IS 9573 (with Type as per latest PNGRB guidelines) (Gas tube from end of Isolation Valve upto burner/stove) and conversion of all the burners of the LPG stove (one stove per household) including supply of all types of burner nozzles/jets and associated controls etc.	B00602	Nos.	3,000	223.47	670,410

Sl. No.	Item Description	Item Code	Units	M/s Embrace Gas Pipelines Pvt. Ltd., Delhi		
				Quantity	Unit Rate (inclusive of all applicable taxes, duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)	TOTAL AMOUNT Without Taxes (Amount inclusive of all applicable taxes & duties & other levies [if any] payable by the Contractor under the Contract, or for any other cause except final GST in Rs.)
177	Complete works as per specification for carrying out cleaning and performing minor maintenance, greasing etc. of appliance, testing/ showing performance to the customer, signing of Joint Meter Records (JMR) and issue of guideline / instructing to customer regarding operation & safety norms during use as per specifications. The issued instruction & guideline should be the entire satisfaction of customer.					
178	Supply of Valves for Carrying out connection (For Domestic Connections)	B00700				
179	Supply of Isolation & Appliance Ball Valves as per Technical Specification and as directed by EIC					
180	Isolation Ball Valve 1/2 " max. 6 bar (g)	B00701	Nos.	3,000	230.92	692,757
181	Isolation Ball Valve 3/4 " max. 6 bar (g)	B00702	Nos.	1,500	365.00	547,502
182	Isolation Ball Valve 1 " max. 6 bar (g)	B00703	Nos.	30	454.39	13,632
183	Appliance Ball Valve 1/2 " max. 35 milli Bar (g)	B00704	Nos.	3,000	193.67	581,022
184	Regulator Boxes: Supply & Installation including painting of approved make regulator boxes and installing them firmly by grouting using approved bracket /clamps as per standard drawing & as per specifications and cleaning the area complete to the satisfaction of EIC.	B00800	Nos	3	871.53	2,615
185	Note:- Services of Safety Officer must be provided by the contractor during execution of Works as mentioned in various sub SOR items under SOR items A00100 & B00100 . Safety Officer will report to EIC and liable to follow his instruction time to time during their deputation at work site. The cost of deputation of Safety Officer at works site is included in above sub SOR items rate under SOR items A00100 & B00100 . In case of non deployment of Safety Officer during execution of works at site and/or as per instruction of EIC, penalty will be levied to contractor as per rate/ amount mentioned in Annexure-10 to SCC enclosed with the tender document and the same will be deducted from their RA Bill.					
186	Registration of Domestic PNG Connections	C00100				
187	Assistance in carrying out the work of Domestic PNG registration as per directions/instructions of the Marketing In charge of GAIL (I) Limited / Authorized representative including but not limited to following: 1) Enrolment & Registration of Domestic PNG Customers as per the given target. 2) Collection of filled up form along with Cheque/Demand Draft of Security Deposit amount and documents All other activities as may be required to complete the work in all respect is defined in the Scope of work to be read along with the Special Conditions of Contract and as per instructions of MIC. Carrying out the marketing activities for Domestic PNG connection as detailed in Scope of work, complete in all respects, as per directions/instructions of the Marketing In Charge including but not limited to the following: Distribution of leaflets & FAQ, Installation of banners, to be provided by client, at prime location, Awareness cum Registration Camp, Audio / Visual Presentations, Organizing Road Shows, etc.	C00101	Nos.	900	111.74	100,562
188	Providing the Services of Resources as per site requirement	D00100				
189	Providing the services of Plumber(Manday= 8 Working Hours)	D00101	Manday	2	595.92	1,192
190	Providing the services of Helper(Manday= 8 Working Hours)	D00102	Manday	2	484.19	968
191	Providing the Services of Welder(Manday= 8 Working Hours)	D00103	Manday	2	1,303.58	2,607
192	Providing the Services of Electrician(Manday= 8 Working Hours)	D00104	Manday	2	744.90	1,490
193	Providing the Services of Conversion Technician(Manday= 8 Working Hours)	D00105	Manday	2	633.17	1,266
194	Providing the Services of Grinder(Manday= 8 Working Hours)	D00106	Manday	2	860.36	1,721
195	Note for all above SOR Items Nos. A00100 to D00106 :- i) Quantities mentioned against all above SOR items are estimated & tentative and may vary up to any extent as per site condition and/or as per instruction of EIC. ii) If certain documents, drawings, datasheets, specifications etc. are not included in the bid, the same will be made available to the successful bidder. While formulating the bid, bidders are requested to quote such items based on practices followed by the similar nature of industries. However procurement & installation of such items will be done as per site requirement after due approval of EIC. iii) Quantities mentioned against all above SOR items are estimated & tentative and may required to be executed either in Ranchi GA or in Jamshedpur GA or in both the GAs, in any ratio, as per site requirement and/or as per instruction of EIC. In this regard, decision of EIC shall be final and binding to the contractor. Hence, bidder is requested to familiarize themselves with both the GAs mentioned above while formulating their bid.					
	Total Excluding GST					21,730,923
	Total Including GST					25,642,489