



Lyons Engineering Pvt. Ltd.

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An ISO 9001:2015 Certified Co.

Reg. No.U74140DL2012PTC237859

Ref: LEPL/GAIL/2022/40/7

22.01.2022

M/s GAIL (India) Limited,
Jubilee Tower,
B- 34 & 35, Sector - 01
Noida, UP (India)

Kind Attention: Mr. Jagannath (DGM-PE)

Subject: Submission of Award Recommendation Revision 2 – ARC Laying Tender ref : 040-LYONS-GAIL-021
for Northern Region

Dear Sir,

Please find enclosed herewith Award Recommendation Revision 1 for the subject Tender.

Lyons Engineering Pvt. Ltd.

M. Girish Kumar
[GM – C&P]



Certificate Registration No. **99 100 20576**
Date of Initial certification: **2019-12-20**



**AWARD RECOMMENDATION
ARC LAYING TENDER FOR NORTHERN REGION**

AWARD RECOMMENDATION

2	22.01.2022	Award Recommendation	AR	GK	SB
Rev.	Date	Subject of revision	Prepared	Checked	Approved

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**AWARD RECOMMENDATION
ARC LAYING TENDER FOR WESTERN REGION**

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**AWARD RECOMMENDATION
ARC LAYING TENDER FOR WESTERN REGION**

A. SUMMARY SHEET

1.	Brief Description of Project	ARC LAYING TENDER NORTHERN REGION
2.	Bid Document / Tender No. & date	E-TENDER REF : Tender ID: 2021_GAIL_98030_1; CONTRACT NO: 040-LYONS-GAIL-021
3.	Scope of Work	LAYING OF PIPELINE AND ASSOCIATED WORKS FOR CGD CONNECTIVITIES IN NORTHERN REGION
4.	Mode of Tendering	LIMITED Domestic Competitive Bidding
5.	Price Bid opening approval from GAIL	Vide mail dtd. 16.1.2022
6.	Price Bid opening scheduled time and date	At 15 Hrs on 17.1.2022 through Video Conference
7.	Actual Price Bid opening time and date	At 15.00 Hrs on 17.1.2022 through Video Conference
8.	L1 Price Vs Cost Estimate	Placed at ANNEXURE -I
9.	Original Price Bid of All Bidders	Placed at ANNEXURE – II- in Excel through E-Mail
10.	List of Bidders whose PBO was recommended by Lyons	1. Techno Global Services Pvt. Ltd. 2. Sakthi Engineers
11.	List of Bidders Whose PBO has been Approved by GAIL	1. Techno Global Services Pvt. Ltd. 2. Sakthi Engineers
	List of Bidders Whose Price Bid was Opened	1. Techno Global Services Pvt. Ltd. 2. Sakthi Engineers
	Status of Bidders	All the Bidders have submitted their Price Bid
	Validity of bid (3 months) i.e. till 29.3.2022	Complied by the bidders
	Cost Estimate	As per Annexure I
	Completion Period	Contract Period : The proposed contract rate shall be for a period of two (02) years from the date of issue of Fax of Acceptance (FOA) and the same may be extended for Six (06) months thereafter at the same rates, terms and conditions. Delivery period : Maximum 24 weeks from the date of issuance of LOI.



**AWARD RECOMMENDATION
ARC LAYING TENDER FOR WESTERN REGION**

B. APPROVAL FOR PRICE BID OPENING

Based on the techno-commercial evaluation of the bids, PBO recommendation was forwarded to GAIL vide Email Dated 7.1.2022 for opening the price bid of above mentioned techno-commercially qualified bidders. GAIL's approval for Price Bid opening was received by email dtd. 16.1.2022 for opening of price bids. Accordingly, intimation was sent to all the bidders through email dated 17.1.2022 for attending the price bid opening, scheduled at 15 Hrs on 17.1.2022 through Video Conference. The price bid was opened on schedule date & time.

C. PRICE EVALUATION OF BIDS

Price bid evaluation has been done as per tender conditions.

The evaluation has been done based on clause no. clause no. 32 of ITB Section-II of tender document.

D. EVALUATED PRICE OF BIDDERS

SI. No.	BIDDER	EVALUATED PRICE (INCLUSIVE OF ALL TAXES AND DUTIES AND GST)
1	TECHNO GLOBAL SERVICES PVT. LTD.	10,53,35,407.86
	STATUS	L2
2	SHAKTI ENGINEERS	9,49,51,709.00
	STATUS	L1

Note:

In the price bid submitted by Techno Global Services Pvt. Ltd. they have mentioned GST rate as 0.18% instead of 18% and system have calculated GST amount @.18%. Inline with clause no. 13.13 of ITB of tender, evaluation has been done as per quoted GST rate ie.0.18%.

E. COMPARISON OF L1 PRICE WITH COST ESTIMATE

Sl. No.	Description	L1 BIDDER PRICE (INCLUSIVE OF ALL TAXES AND DUTIES AND GST)	COST ESTIMATE (INCLUSIVE OF ALL TAXES AND DUTIES AND GST)	VARIANCE	L1 Bidder
1.	Comparison of L1 Price with Cost Estimate	9,49,51,709.00	10,51,60,580.31	(-) 9.71%	SHAKTI ENGINEERS

The total approved Estimate for this Project is Rs. 10,53,96,530.31. For item No. B 006050 an amount of Rs. 2,00,000.00 is considered in Cost Estimate for which bidder was asked not to quote since the expenses are for



**AWARD RECOMMENDATION
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Transportation of material for nominal quantities from despatch point to site on "TO PAY BASIS" and legal RTO charges due to the ODC consignments. However as per Clause No. 2.5.7 of Tender, the amount mentioned is 1,00,000.00. In the earlier Tenders the amount was 1,00,000/- and for this Tender the amount was revised to 2,00,000 since with Rs. 1,00,000/- the expenses was getting not covered. Inadvertently the same was not updated in Tender. Since bidder is not supposed to quote for this item, total estimate has been reduced by 2,36,000/- (inclusive of GST) for evaluation purpose to provide a realistic comparison.

L1 Bidder has quoted 9.71% lower than the Cost Estimate. Lyons Estimate is based on the past awarded rates of similar Tenders with same scope of work and hence the estimate is correct. Bidder have quoted very competitive rates to secure the order.

F. INSUFFICIENT COMPETITION

Since only 2 Bidders are there for this Tender insufficient competition is there. However since the price quoted by L1 bidder is very competitive and less than 9.71% of the cost estimate, order can be placed on the L1 Bidder thus complying with Clause 4.16 of C&P Procedure.

G. PUBLIC PROCUREMENT POLICY

Not applicable in this Tender.

H. RECOMMENDATION

Based on the above evaluation and tender clause No. 32 of ITB we hereby conclude as follows;

Order may be placed on L1 Bidder M/s Shakti Engineers for an amount of Rs. **8,04,67,550.00** without GST and Rs. **9,49,51,709.00** with GST@ 18%..

For Lyons Engineering Pvt.Ltd.

M GIRISH KUMAR
General Manager – C&P

Government eProcurement System Created By: MALEPPURATH GIRISH KUMAR Created Date/Time: 18-Jan-2022 09:32 AM Tender Title: Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis Tender ID: 2021_GAIL_98030_1									
Tender Inviting Authority: GAIL (India) Ltd.									
Name of Work:Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis									
Contract No: 040-LYONS-GAIL-021									
SCHEDULE OF WORK / ITEM(S)									
Sl.No	Description of Work / Item(s)	No.of Qty	Units	Estimated Rate	TECHNO GLOBAL SERVICES PVT LTD(GSTN-NA)	SHAKTI ENGINEERS(GSTN-NA)	COST ESTIMATE	Variance%	AHR
					Rate	Amount	Rate	Amount	
1.00	SECTION-A (MAIN LINE WORKS)								
2.00	PIPELINE LAYING / INSTALLATION (CARBON STEEL PIPES)								
3.00	Receiving and taking over, as defined in the specifications, handling, loading, transportation and unloading of Owner-supplied 3-layer PE coated line pipes along with associated fittings and valves from Owner's designated stock-yard to Contractor's stock-yard / workshop / work-site including preliminary activities, preparation of drawings wherever required for crossing, etc. including handling, stacking, stringing on the pipeline right-of-use / pipeline route alignment, carrying out inspection of Company-supplied materials, including line pipes, at the time of taking over, laying / installation of coated line pipes, associated fittings (U barred tee etc) and accessories, including execution of all works, taking over, handling, including loading and unloading, arrangement of all additional land required for Contractor's storage, fabrication, procurement and supply of all consumables, equipment, labour and other inputs, carrying out all temporary, ancillary, auxiliary works, ready for commissioning of pipeline, as per drawings, specifications, other provisions of Contract Document and instructions of Engineer-in-Charge (EIC), including, but not limited to, carrying out following works:								
4.00	Staking and installation of construction markers, clearing, fencing, grubbing, full filling all the requirements of various statutory / environment authorities to the entire satisfaction of concerned authorities. Shifting of all obstructions within the ROU / pipeline route alignment, viz. electrical lines / poles, telephone lines / poles, coordination with concerned authorities and obtaining permissions from these authorities.								
5.00	Trenching to all depths by excavation in all types of soils except hard rock, chiselling or otherwise cutting different types of pavement, footpath, roads 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 and optical fibre conduit as per the relevant standard / specification etc. [The minimum depth of the top of pipeline shall be 1.0m measured from top of pipeline coating to the top of undisturbed surface of the soil or as per Special Condition of Contract (SCC) / OSID - 141 OISD - 226]. Dewater of trenches if required as per site condition. Note : Extra payment on account of excavation in hard rock will be as per SOR item No. A00120 based on actual measurement for hard rock encountered as certified by the EIC.								
6.00	Carrying out repairs of pipe defects / replacement in case of irreparable defects and repairs of defects of pipe coating not attributable to Owner including defects / damages occurring during transportation / handling.								
7.00	Stringing of line pipes along ROU including providing straw / sand / soft soil bags, soft padding / sand padding.								
8.00	Checking, cleaning, aligning, bending, cutting and bevelling (as required) of pipes for welding & field adjustments including pipe fittings, welding, carrying out non-destructive testing of welds as required including 100% radiography by X-ray/Gamma ray as per specifications in piping of all types and thickness and providing all requisite equipment, labour, supervision, materials, films, consumables, all facilities & personnel to process, develop, examine and interpret radiographs & other tests as required, carrying out repairs of weld-joints found defective by EIC, carrying out re-radiography and other tests as required on repaired joints, etc. as mentioned in SCC and particular job specifications.								
9.00	Installation of carrier line pipe at all crossings viz road, carttrack, pathway, drain, nallah & minor water crossings, etc. at designated depth by open cut (including laying of casing pipe) (except at HDD / Boring cased crossings which is covered separately elsewhere in this SOR).								
10.00	Coating of all weld joints, long radius bends, etc.								
11.00	Installation / lowering the pipeline in trench to required depth, placement of PE / PVC warning mat over the pipeline along the complete route, pre-padding and post padding around pipeline (as per standard) with soft soil/sand including supply of padding material/rock shield , PE / PVC warning mat, backfilling with available / borrowed earth, approved excavated material and /or other suitable soil by crowning.								
12.00	Supply and installation of slope breakers, bank protection, wherever required and as directed by EIC.								
13.00	All tie-in, including the tie-ins with adjacent section of the pipeline.								
14.00	Lowering the pipelines in trench, providing required depth and backfilling over and around the pipeline with available, approved excavated material as per specification and / or other suitable soil approved by EIC.								
15.00	Select soil for backfilling, if required, as per specification including supply of graded sand / rock / other types of soil in place of available excavated material and / or other suitable soil, including transportation of such special backfill material over all distances, complete.								
16.00	Protective coating of 450 microns thick 2-component high built coal tar epoxy (applied with the help of minimum 3 coats) including supply of coating & other materials duly approved by Owner for all piping valves, fittings, structural steels, etc. for buried installation and inside the valve-pit.								
17.00	Carrying out air cleaning, pigging, flushing, cleaning and hydrostatic testing of complete pipeline with required quantity of corrosion inhibitor including pre-testing of designated sections complete as per specification and approved by EIC to specified pressures indicated elsewhere and duration after stabilization as per specification, providing all equipment, pumps, fittings, instruments, dead weight tester, pressure recorder, thermocouples, etc., and services, supervision, labour, consumables, water including supply of corrosion inhibitor, air, etc. as required, locating of leaks and rectification of defect attributable to Contractor (rectification of defects in linepipe material not attributable to Contractor shall be paid separately as per other item of SOR), re-testing after rectification, dewatering after successful completion of hydrotesting of entire section and as approved by EIC.								

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Tender Inviting Authority: GAIL (India) Ltd.												
Name of Work:Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis												
Contract No: 040-LYONS-GAIL-021												
SCHEDULE OF WORK / ITEM(S)												
Sl.No	Description of Work / Item(s)	No. of Qty	Units	Estimated Rate	TECHNO GLOBAL SERVICES PVT LTD(GSTN-NA)	SHAKTI ENGINEERS(GSTN-NA)		COST ESTIMATE		Variance%	AHR	
					Rate	Amount	Rate	Amount	Rate	Amount		
18.00	Swabbing of the complete pipeline section and the associated facilities being installed to the specified acceptance criteria, carrying out pre-commissioning works, providing assistance during the complete duration of commissioning operations for entire pipeline and making the entire pipeline system ready for commissioning including supply of all equipment, manpower, consumables, pigging and Nitrogen purging and preservation maintaining Nitrogen column of minimum 5% of pipeline volume (payment for supply of Nitrogen shall be paid separately as per SOR no-B0011000). Materials for all temporary works and performing all associated works, complete as per the relevant specifications, other provisions of Contract Document and instructions of EIC.											
19.00	Final clean-up of right-of-use and disposal of debris and surplus material to designated disposal areas and reinstalling the area to its earlier state as per satisfaction of concerned authority and as directed by EIC.											
20.00	Preparation of as-built drawings, pipe-books (2 soft copy in AutoCad format in CD, 2 soft-copies in PDF format (in CD) and 4 hard-copies of pipe-book) All the works shall be executed in accordance with the provision of Contract including carrying out all temporary / ancillary / auxiliary works required for the performance of the works and all other acts, deeds, matters and things necessary to make the pipeline ready for precommissioning activities.											
21.00	Line pipe laying & installation with radiography											
22.00	Specified Size (NB)											
23.00	100 (4"), diff. grades & thickness (applicable for Connectivity cumulative length of mainline upto 200 meters)	1700.00	Meter		8000	13600000	2800.00	4760000	5,115.35	86,96,089.90	-45.26%	
24.00	100 (4"), diff. grades & thickness (applicable for Connectivity cumulative length of mainline upto 500 meters)	550.00	Meter		6500	3575000	2775.00	1526250	4,603.81	25,32,096.60	-39.72%	
25.00	100 (4"), diff. grades & thickness (applicable for Connectivity cumulative length of mainline upto 2000 meters)	650.00	Meter		5500	3575000	2750.00	1787500	4,143.43	26,93,230.15	-33.63%	
26.00	100 (4"), diff. grades & thickness (applicable for Connectivity cumulative length of mainline beyond 2000 meters)	2100.00	Meter		4144	8702400	2600.00	5460000	3,729.09	78,31,084.80	-30.28%	
27.00	200 (8"), diff. grades & thickness (applicable for Connectivity cumulative length of mainline upto 200 meters)	50.00	Meter		15000	750000	6000.00	300000	6,974.53	3,48,726.35	-13.97%	
28.00	200 (8"), diff. grades & thickness (applicable for Connectivity cumulative length of mainline upto 500 meters)	50.00	Meter		10000	500000	5950.00	297500	6,340.48	3,17,023.95	-6.16%	
29.00	200 (8"), diff. grades & thickness (applicable for Connectivity cumulative length of mainline beyond 500 meters)	50.00	Meter		10000	500000	5900.00	295000	5,706.43	2,85,321.55	3.39%	
30.00	300 (12"), diff. grades & thickness (applicable for Connectivity cumulative length of mainline upto 100 meters)	50.00	Meter		15000	750000	7000.00	350000	8,808.00	4,40,400.00	-20.53%	
31.00	300 (12"), diff. grades & thickness (applicable for Connectivity cumulative length of mainline upto 300 meters)	50.00	Meter		10000	500000	6950.00	347500	8,257.50	4,12,875.00	-15.83%	
32.00	300 (12"), diff. grades & thickness (applicable for Connectivity cumulative length of mainline beyond 300 meters)	50.00	Meter		10000	500000	6900.00	345000	6500	3,25,000.00	6.15%	
33.00	Note: (1) This item shall be applicable for the underground steel main pipeline & underground tap-off points (i.e. including arrangement for making provision for tap-off except hot tapping and their hook-up) on existing / proposed steel main pipeline to Insulating Joint at proposed Receiving / Dispatch Station; (2) All crossings installed by HDD / jacking / boring shall be paid separately as per the rates quoted for the same elsewhere in the SOR.				0					-		
34.00	Excavation in hard rock	30.00	Cu. M		4503	135090	3000.00	90000	4,052.06	1,21,561.80	-25.96%	
35.00	Supply and installation of Concrete Slab / HT sheeting for Protection of Pipeline against underground HT cables /over head HT lines as per drawing and specification attached with tender document	20.00	Running Meter		4200	84000	4000.00	80000	3,779.37	75,587.40	5.84%	
36.00	INSTALLATION OF CARRIER PIPE CROSSINGS BY HDD METHOD AT CROSSING WITHOUT CASING PIPE in all types of soils i.e. normal soil/soft rock/murram etc. except hard rock				0					-		
37.00	Complete work of installation of carrier pipe at crossings (between the limits as defined in approved drawings. Drawing preparation and obtaining the approval on the same is included in the scope of Contractor) by HDD method for roads, nallahs, drains and canals, wherever required, in all types of soils i.e. normal soil/soft rock/murram etc. except hard rock, including "receiving and taking over" Owner-supplied 3-layer PE coated line pipes from Owner's designated place of issue / dump-site(s) and transportation to Contractor's stock-yard / workshop / work-site including all handling loading, unloading, aligning, etc. supply of all Contractor-supplied materials, manpower, equipment, consumable, other resources and acquiring the required land for storage, fabrication, including string preparation of pipes, welding, welding repair, radiography, coating of field joints with special type Heat Shrink Sleeve and repair of pipeline coating with special repair patch materials as per specification, strapping of HDPE conduit with main pipeline for laying / blowing of OFC cables, pre-testing, etc. of complete string made for crossing access for Contractor, etc. and execution of, but not limited to, following works in accordance with the specifications and instructions of EIC, and as per all provisions of Contract Document."				0					-		
38.00	Pre-construction survey based on site-visit, carrying out all additional topographical, hydrological & geo-technical surveys as required for design & construction of crossing, collection of data (if reqd.) from concerned authority including design & detailed engineering and making of crossing drawings for getting their approval from concerned authority / EIC, getting work permit / NOC for crossings as well as utility crossings (if any) encountered during crossings prior to start the execution of work.				0					-		
39.00	Drilling to required depth including maintenance of drill hole in all types of strata (in all types of soils i.e. normal soil/soft rock/murram etc. except hard rock), all depth to accommodate the pipeline at all conditions encountered during crossing by approved HDD methods procedure for providing minimum cover specified in code / specification or as decided by concerned authority, whichever is more.				0					-		

Government eProcurement System Created By: MALEPPURATH GIRISH KUMAR Created Date/Time: 16-Jan-2022 09:32 AM Tender Title: Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis Tender ID: 2021_GAIL_98030_1												
Tender Inviting Authority: GAIL (India) Ltd.												
Name of Work:Construction of Steel Pipelines and Associated facilities for CGD Connectvities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis												
Contract No: 040-LYONS-GAIL-021												
SCHEDULE OF WORK / ITEM(S)												
Sl.No	Description of Work / Item(s)	No. of Qty	Units	Estimated Rate	TECHNO GLOBAL SERVICES PVT LTD(GSTN-NA)		SHAKTI ENGINEERS(GSTN-NA)		COST ESTIMATE		Variance%	AHR
					Rate	Amount	Rate	Amount	Rate	Amount		
40.00	Backfilling of the ditch / trench including restoration and cleanup of area and all other works including cleaning, final hydrotesting, etc. alongwith mainline works (as mentioned in clause no. A00100 above) required as per specification, approved drawings, calculations, methods and to the satisfaction of EIC and / or as directed by concerned authority.					0				-		
41.00	Installation of 4" NB 3LPE Coated Carbon Steel Pipeline by HDD	250.00	Meter		18297	4574250	18000.00	4500000	16,465.24	41,16,310.00	9.32%	
42.00	Installation of 8" NB 3LPE Coated Carbon Steel Pipeline by HDD	50.00	Meter		21680	1084000	19000.00	950000	19,509.92	9,75,496.00	-2.61%	
43.00	Installation of 12" NB 3LPE Coated Carbon Steel Pipeline by HDD	10.00	Meter		25000	250000	17000.00	170000	21,600.00	2,16,000.00	-21.30%	
44.00	Note: (1) The length mentioned in SOR is indicative for all the crossing to be done by HDD & locations shall be decided by GAIL / Consultant prior to start of job depending upon site-condition; (2) Payment for the length of final tied in carrier pipeline string with mainline laid by HDD are inclusive in this above item rate. No any separate payment shall be made under other clauses mentioned elsewhere.					0				-		
45.00	INSTALLATION OF CARRIER PIPE CROSSINGS BY HDD METHOD AT CROSSING WITHOUT CASING PIPE IN HARD ROCK					0				-		
46.00	Complete work of installation of carrier pipe at crossings (between the limits as defined in approved drawings. Drawing preparation and obtaining the approval on the same is included in the scope of Contractor) by HDD method for roads, nallahs, drains and canals, wherever required, in Hard rock area, including "receiving and taking over" Owner-supplied 3-layer PE coated line pipes from Owner's designated place of issue / dump-site(s) and transportation to Contractor's stock-yard / workshop / work-site including all handling loading, unloading, aligning, etc. supply of all Contractor-supplied materials, manpower, equipment, consumable, other resources and acquiring the required land for storage, fabrication, including string preparation of pipes, welding, welding repair, radiography, coating of field joints with special type Heat Shrink Sleeve and repair of pipeline coating with special repair patch materials as per specification, strapping of HDPE conduit with main pipeline for laying / blowing of OFC cables, pre-testing, etc. of complete string made for crossing access for Contractor, etc. and execution of, but not limited to, following works in accordance with the specifications and instructions of EIC, and as per all provisions of Contract Document."					0				-		
47.00	Pre-construction survey based on site-visit, carrying out all additional topographical, hydrological & geo-technical surveys as required for design & construction of crossing, collection of data (if reqd.) from concerned authority including design & detailed engineering and making of crossing drawings for getting their approval from concerned authority / EIC, getting work permit / NOC for crossings as well as utility crossings (if any) encountered during crossings prior to start the execution of work.					0				-		
48.00	Drilling to required depth including maintenance of drill hole in Hard rock area, all depth to accommodate the pipeline at all conditions encountered during crossing by approved HDD methods procedure for providing minimum cover specified in code / specification or as decided by concerned authority, whichever is more.					0				-		
49.00	Backfilling of the ditch / trench including restoration and cleanup of area and all other works including cleaning, final hydrotesting, etc. alongwith mainline works (as mentioned in clause no. A00100 above) required as per specification, approved drawings, calculations, methods and to the satisfaction of EIC and / or as directed by concerned authority.					0				-		
50.00	Installation of 4" NB 3LPE Coated Carbon Steel Pipeline by HDD	50.00	Meter		32700	1635000	30000.00	1500000	29,426.73	14,71,336.50	1.95%	
51.00	Installation of 8" NB 3LPE Coated Carbon Steel Pipeline by HDD	10.00	Meter		39240	392400	30000.00	300000	35,312.08	3,53,120.80	-15.04%	
52.00	Installation of 12" NB 3LPE Coated Carbon Steel Pipeline by HDD	10.00	Meter		45000	450000	28000.00	280000	42,000.00	4,20,000.00	-33.33%	
53.00	Note: (1) The length mentioned in SOR is indicative for all the crossing to be done by HDD & locations shall be decided by GAIL / Consultant prior to start of job depending upon site-condition; (2) Payment for the length of final tied in carrier pipeline string with mainline laid by HDD are inclusive in this above item rate. No any separate payment shall be made under other clauses mentioned elsewhere.									-		
54.00	CROSSING (CASED / UNCASD) EXCEPT HARD ROCK									-		
55.00	CROSSING (CASED / UNCASD) EXCEPT HARD ROCK									-		
56.00	Preparation of required length of carrier pipeline welded string including all other works as mentioned in Item No. A00100 above and specification / drawings. Insertion of carrier pipeline welded string including all other works as mentioned in Item No. A00100 above and as per specification / drawings. Insertion of carrier pipe in casing pipe after aboveground pretesting at specified test pressure and installation of casing insulators as per specification / drawings. Installation of vent and drain assembly, fixing of end seals, backfilling and restoration as original of the facilities crossed and performing all other works including pigging, cleaning, final hydrotesting, etc. alongwith mainline works (as mentioned in Item No. A00100 above) and as per specification, approved procedure, drawing, etc. and instructions of EIC and provision of contract document, getting NOC from all concerned authority of the facilities crossed.									-		
57.00	By Jacking / Boring Method with 8" Steel casing pipe along with 4" carrier pipe.	5.00	Mtr.		10000	50000	15000.00	75000	9,600.00	48,000.00	56.25%	AHR
58.00	By Jacking / Boring Method with 14" Steel casing pipe along with 8" carrier pipe.	5.00	Mtr.		12000	60000	15000.00	75000	12,000.00	60,000.00	25.00%	
59.00	By Jacking / Boring Method with 18" Steel casing pipe along with 12" carrier pipe.	5.00	Mtr.		15000	75000	15000.00	75000	14,400.00	72,000.00	4.17%	

Government eProcurement System Created By: MALEPPURATH GIRISH KUMAR Created Date/Time: 18-Jan-2022 09:32 AM Tender Title: Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis Tender ID: 2021_GAIL_98030_1												
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Name of Work:Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis												
Contract No: 040-LYONS-GAIL-021												
SCHEDULE OF WORK / ITEM(S)												
Sl.No	Description of Work / Item(s)	No. of Qty	Units	Estimated Rate	TECHNO GLOBAL SERVICES PVT LTD(GSTN-NA)		SHAKTI ENGINEERS(GSTN-NA)		COST ESTIMATE		Variance%	AHR
					Rate	Amount	Rate	Amount	Rate	Amount		
60.00	Note: (1) The length mentioned in SOR is indicative for all the crossing to be done by Jacking / Boring numbers & locations shall be decided by GAIL / Consultant prior to start of job depending upon site-condition; (2) Width of the above crossing mentioned is tentative. Actual length & cover from top of casing pipe string may vary depending upon site-conditions, crossing methods, approved drawings, etc. and / or decided by concerned Authority / EIC; (3) Payment for the length of final tied-in carrier pipeline string with mainline laid by Jacking / Boring method are inclusive in this above item rate. No any separate payment shall be made under other clauses mentioned elsewhere.				0					-		
61.00	Supply of steel casing pipe				0					-		
62.00	8" NB 6.4 mm W.T. API 5L Gr.B / IS 3589 / Equivalent	5.00	Mtr.		3600	18000	6000.00	30000	3,239.88	16,199.40	85.19%	AHR
63.00	14" NB 6.4 mm W.T. API 5L Gr.B / IS 3589 / Equivalent	2.00	Mtr.		4800	9600	8000.00	16000	4,319.84	8,639.68	85.19%	AHR
64.00	PERMANENT MARKERS				0					-		
65.00	Supply, fabrication & installation of following types of permanent markers along the route including all associated civil works such as excavation in all types of soil, construction of pedestals & grouting with concrete, cleaning, supply & application of approved colour & quality of primer and paint, stencil letter cutting for numbers, direction, chainage, etc., restoration of area to original condition & performing all works as per drawings, specifications and instructions of EIC.				0					-		
66.00	Pipeline Warning Signs	70.00	No.		9098	636860	8000.00	560000	8,187.34	5,73,113.80	-2.29%	
67.00	Right-of-way Boundary Markers	70.00	No.		2401	168070	2000.00	140000	2,160.72	1,61,250.40	-7.44%	
68.00	Kilometer Posts	15.00	No.		13080	196200	8000.00	120000	11,770.69	1,76,560.35	-32.03%	
69.00	Direction Markers	50.00	No.		11008	550400	7000.00	350000	9,906.16	4,95,308.00	-29.34%	
70.00	Pipeline laying liaisoning with statutory authorities / Permission Issuing Authorities				0					-		
71.00	Liaisoning with statutory Authority /Permission issuing Authorities for obtaining routine work permit for execution of work and NOC from various Statutory Authority having jurisdiction before/during execution of work and for complying with all stipulations/ conditions and recommendation of the said Authority. Required Permission shall be arranged/obtained by the Owner. (Note :- Payment shall be based on the actual length of pipeline laid).	50.00	Mtr.		195	9750	1000.00	50000	175.44	8,772.00	470.00%	AHR
72.00	GPRS (Ground Penetration Raddar Survey) in all depth				0					-		
73.00	Locate Under ground services / utilities within the pipeline route.This shall include identification of under ground utilities by scanning with electromagnetic underground services locator / ground penetrating radar followed by hand excavation to expose the utilities with permission from concerned authorities. laying agency shall prepare a methodology for Scanning and identify the probable areas and obtain prior permission from Engineer-in charge / Client before start of work. Such ground area where utilities are identified by scanning, shall be marked with Red paint. Note: 1.These rates shall be applied only when explicitly permitted by Company.	10.00	M2		357	3570	600.00	6000	321.65	3,216.50	86.54%	AHR
74.00	INSTALLATION OF CARRIER PIPE CROSSINGS BY MOILING METHOD AT CROSSING WITHOUT CASING PIPE				0					-		
75.00	Complete work of installation of carrier pipe at crossings (between the limits as defined in approved drawings) by moiling method for roads, nallahs, drains and Factory Gates etc., wherever required, in all types of soils, soft rock/ murrum. This includes "receiving and taking over" Owner-supplied 3-layer PE coated line pipes from Owner's designated place of issue / dump-site(s) and transportation to Contractor's stock-yard / workshop / work-site including all handling loading, unloading, aligning, etc. supply of all Contractor-supplied materials, manpower, equipment, consumable, other resources and acquiring the required land for storage, fabrication, including string preparation of pipes, welding, welding repair, radiography, coating of field joints with special type Heat Shrink Sleeve and repair of pipeline coating with special repair patch materials as per specification, strapping of HDPE duct as the case may be with main pipeline for laying / blowing of OFC cables, pre-testing, etc. of complete string made for crossing access for Contractor, etc. and execution of, but not limited to, following works in accordance with the specifications and instructions of EIC, and as per all provisions of Contract Document."				0					-		
76.00	Pre-construction survey based on site-visit, carrying out all additional topographical, hydrological & geo-technical surveys as required for design & construction of crossing, collection of data (if reqd.) from concerned authority including design & detailed engineering and making of crossing drawings for getting their approval from concerned authority / EIC, getting work permit / NOC for crossings as well as utility crossings (if any) encountered during crossings prior to start the execution of work.				0					-		
77.00	Drilling to required depth including maintenance of drill hole in all types of strata (in all types of soils, soft rock/ murrum), all depth to accommodate the pipeline at all conditions encountered during crossing and providing minimum cover specified in code / specification or as decided by concerned authority, whichever is more.				0					-		
78.00	Backfilling of the ditch / trench including restoration and cleanup of area and all other works including cleaning, final hydrotesting, etc. alongwith mainline works (as mentioned in clause no. A00100 above) required as per specification, approved drawings, calculations, methods and to the satisfaction of EIC and / or as directed by concerned authority.				0					-		
79.00	Laying of 4" NB Carrier pipe without casing by Moiling method	75.00	Mtr.		4871	365325	8000.00	600000	4,383.60	3,28,770.00	82.50%	AHR
80.00	Laying of 8" NB Carrier pipe without casing by Moiling method	50.00	Mtr.		5052	252600	8000.00	400000	4,546.43	2,27,321.50	75.96%	AHR
81.00	Laying of 12" NB Carrier pipe without casing by Moiling method	20.00	Mtr.		6500	130000	7000.00	140000	4,200.00	84,000.00	66.67%	AHR

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					Rate	Amount	Rate	Amount	Rate	Amount		
82.00	Note: i)The length mentioned in SOR is indicative for all the crossing to be done by Molling & locations shall be decided by GAIL / Consultant prior to start of job depending upon site-condition. ii) Payment for the length of final tied in carrier pipeline string with mainline laid by Molling are inclusive in this above item rate. No any separate payment shall be made under other clauses mentioned elsewhere.					0				-		
83.00	Hiring and deploying of fire tenders along with accessories and operating crew. The rates quoted shall be inclusive of all expenses.					0				-		
84.00	Deployment of Fire Tenders for 12 Hrs	4.00	Nos.		27351	109404	25000.00	100000	24,612.99	98,451.96	1.57%	
85.00	Hiring and deploying of FINAL HYDRO TEST EQUIPMENT along with accessories and operating crew. The rates quoted shall be inclusive of all expenses and consumable etc. (Item to be claim seperately for project upto 500m length only and testing by dead weight test& graph). "" The payment of this item shall be made in addition to item No A00100 and associated Mainline items. "					0				-		
86.00	Deployment and completion of post hdro testing of complete P/L project	1.00	Nos.		110000	110000	100000.00	100000	98,989.00	98,989.00	1.02%	
87.00	Hot Tapping					0				-		
88.00	Design, Engineering, manufacture & Supply of Split Tee as mentioned in scope of work including transportation & delivery at GAIL, designated store. Ascertain the thickness of the parent pipe at site before Hot Tap. Obtaining Hot work permits from owner. Transportation of free issued Valves (12", 10", 8" & 6") from GAIL designated storage yard/warehouse for installation to site including welding and all related activities as per specification. Mobilization Hot Tapping machines, manpower to complete the Hot Tapping Works including welding, NDT, Hydro testing, NDT etc. for successful completion of work. Supply of necessary consumables to complete the job in all respect. Commissioning of complete works as per Specification and Standard. Demobilization of hot tapping machine tools & tackles etc. Mobilization, boarding and lodging and demobilization of all manpower are included in price quoted by the Bidder. Complete Supply, Installation, Testing and Commissioning of, but not limited to, following works in accordance with the specifications and instructions of EIC, and as per all provisions of Contract Document. Drawing, document preparation and obtaining the approval on the same is included in the scope of Contractor.					0				-		
89.00	Supply of Full Encirclement type Split Tee					0				-		
90.00	36"x36"x12" Reduced Branch Full Encirclement Type Butt Welded End Split Tee without Lock O-Ring RF Flange and without Guide Bar Assembly. Pressure Rating 600 #	1.00	Nos.		2728500	2728500	2500000.00	2500000	28,80,000.00	28,80,000.00	-13.19%	
91.00	24"x24"x8" Reduced Branch Full Encirclement Type Butt Welded End Split Tee without Lock O-Ring RF Flange and without Guide Bar Assembly Pressure Rating 600 #	1.00	Nos.		2190000	2190000	2200000.00	2200000	24,00,000.00	24,00,000.00	-8.33%	
92.00	18"x18"x6" Reduced Branch Full Encirclement Type Butt Welded End Split Tee without Lock O-Ring RF Flange and without Guide Bar Assembly Pressure Rating 600 #	1.00	Nos.		1434000	1434000	2000000.00	2000000	21,60,000.00	21,60,000.00	-7.41%	
93.00	Installation of Full Encirclement type Split Tee					0				-		
94.00	36"x36"x12" Reduced Branch Full Encirclement Type Butt Welded End Split Tee without Lock O-Ring RF Flange and without Guide Bar Assembly. Pressure Rating 600 #	1.00	Nos.		1500000	1500000	1000000.00	1000000	12,00,000.00	12,00,000.00	-16.67%	
95.00	24"x24"x8" Reduced Branch Full Encirclement Type Butt Welded End Split Tee without Lock O-Ring RF Flange and without Guide Bar Assembly Pressure Rating 600 #	1.00	Nos.		1000000	1000000	800000.00	800000	10,20,000.00	10,20,000.00	-21.57%	
96.00	18"x18"x6" Reduced Branch Full Encirclement Type Butt Welded End Split Tee without Lock O-Ring RF Flange and without Guide Bar Assembly Pressure Rating 600 #	1.00	Nos.		800000	800000	512500.00	512500	9,60,000.00	9,60,000.00	-46.61%	
97.00	Note: (1) The quantities given above against individual items are indicative and shall not be considered to be binding. The quantities may be increased, decreased or deleted at site at the time of actual execution. Procurement shall be done as per actual site condition, approved construction drawings and as per instruction of EIC. The unit rate shall be operated to work out the final payment to the contractor; (2) In each area, quantities given against individual item may be utilised / used for other consumers in same area.					0				-		
98.00	SECTION-B [MECHANICAL (PIPING & TERMINAL WORKS)]					0				-		
99.00	PLANT PIPING (ABOVE GROUND)					0				-		
100.00	Complete Carbon Steel Piping Work with painting including all fittings, flanges and supply of all required gaskets, studs bolts & nuts, etc., as described below					0				-		
101.00	Transportation of all piping items from Contractor's storage point to work site complete work of fabrication, erection, painting, testing of pipes, flanges and fittings and making ready for further commissioning / start-up of carbon steel piping of all sizes and ratings including supply of all consumables, equipment, manpower and other resources and execution of, but not limited to, the following works in accordance with relevant specifications indicated in particular job specification & scope of work indicated in SCC, drawings, specification and instructions of EIC and as per all provisions of the Contract Document.					0				-		
102.00	Fabrication including cutting, edge preparation, inclusive of grinding the edges of pipes, fittings, flanges, etc. to match with the matching edges of uneven / different thickness wherever required, welding, attachment of all pipe fittings like elbows, tees, reducers. Supply of nipples, couplings, caps, plugs, gasket, stud bolts, nuts, U-clamps, etc. as required for completion of job.All fittings installation shall be paid linear meter basis under this item only.					0				-		
103.00	Handling and installation of all types & size of valves including assembly of valve accessories/ Actuator, (if any) by bolting, threading or welding, supply and insertion of gaskets, nuts & bolts, nipples, tubing etc. at all elevations of pipe sleepers, supports or overhead on racks, equipments nozzle, skid & painting etc. supply of all consumables, manpower, equipment, etc. for completion of all works as per scope of work and as per drawings, specifications and instructions of EIC including servicing / cleaning of valve wherever required.					0				-		
104.00	Installation of weldolets, sockolets, flanges, vent and drain point connection, etc., as required.					0				-		

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Sl.No	Description of Work / Item(s)	No. of Qty	Units	Estimated Rate	TECHNO GLOBAL SERVICES PVT LTD(GSTN-NA)	SHAKTI ENGINEERS(GSTN-NA)		COST ESTIMATE		Variance%	AHR	
					Rate	Amount	Rate	Amount	Rate	Amount		
105.00	Erection including prior cleaning, lifting, placing on pipe sleepers and supports, overhead on racks, skids and at all elevations including installation, design & fabrication of all type of supports / jump-over and carrying out connected activities for all types of valves including supply & fixing of gaskets, studs / bolts, nuts wherever required for all sizes, leveling, aligning, joining of flanges, blind flanges, connecting with equipment, nozzles, strainers, tie-in with existing piping / facilities, etc. tapping for inline instruments like pressure gauges, thermowells, sample connection, etc.				0					-		
106.00	Design and Residual Engineering				0					-		
107.00	Preparation of bill of material(BOM)				0					-		
108.00	Preparation of Construction, Fabrication, GAD, isometric and As-built drawings				0					-		
109.00	Carrying out all Non-destructive testing as required except Radiography.				0					-		
110.00	Surface preparation before application of primer by means of sand blasting including supply of approved quality of sand, manpower, machineries, tools & tackles to achieve required roughness as per specification and as per instruction of EIC.				0					-		
111.00	Painting of entire system (including aboveground all pipes fittings, flanges & accessories) suitable for Normal corrosive area environment including supply of approved paints & primers, application of primer & paints, identification lettering / numbering, color-coding, etc. as specified including rub-down & touch-up of shop primer or scrapping of shop primer wherever required by Company and providing scaffolding for all heights, etc.				0					-		
112.00	Cleaning and flushing by water / compressed air, testing of the systems including hydrostatic, pneumatic and any other types of testing as specified, draining, drying by compressed air / other methods approved by Company.				0					-		
113.00	Precommissioning & making operational all piping system and equipments.				0					-		
114.00	Commissioning Contractor scope shall provide all necessary assistance in term of supply of manpower, equipment, tools and tackles required amount of nitrogen for purging of entire terminal piping system including equipments etc. to the company during commissioning activities.				0					-		
115.00	Completion of all such work in all respects as per scope of work and as per drawings, specifications and instructions of the COMPANY and keeping the system ready in all respects for further commissioning and start-up.				0					-		
116.00	12" NB Piping different grades & thickness	20.00	Mtr.		9750	195000	20000.00	400000	8,773.83	1,75,476.60	127.95%	AHR
117.00	8" NB Piping different grades & thickness	20.00	Mtr.		8593	171860	18000.00	360000	7,732.69	1,54,653.80	132.78%	AHR
118.00	6" NB Piping different grades & thickness	10.00	Mtr.		7649	76490	16000.00	160000	6,882.87	68,828.70	132.46%	AHR
119.00	4" NB Piping different grades & thickness	180.00	Mtr.		6628	1193040	5000.00	900000	5,964.18	10,73,552.40	-16.17%	
120.00	2" NB Piping different grades & thickness	140.00	Mtr.		4678	654920	3500.00	490000	4,210.24	5,89,433.60	-16.87%	
121.00	1½" NB Piping different grades & thickness	10.00	Mtr.		3900	39000	700.00	7000	3,509.78	35,097.80	-80.06%	
122.00	1" NB Piping different grades & thickness	10.00	Mtr.		1962	19620	700.00	7000	1,765.60	17,656.00	-60.35%	
123.00	¾" NB Piping different grades & thickness	40.00	Mtr.		1624	64960	700.00	28000	1,461.29	58,451.60	-52.10%	
124.00	Note: For Hook-up works at tap-off point, Despatch & Receiving Terminal including making provision for hooking up and carrying out shutdown activities at terminals if necessary shall be paid as per SOR number B008000				0					-		
125.00	INSTALLATION OF VALVES				0					-		
126.00	INSTALLATION OF ABOVE GROUND FLANGED VALVES (BALL / PLUG / CHECK / GATE / GLOBE) AS PER DETAILS GIVEN BELOW:				0					-		
127.00	Size - 2.0 Inch, Rating - 150#/300#/600#	25.00	Nos		4289	107225	4000.00	100000	3,859.75	96,493.75	3.63%	
128.00	Size - ¾ Inch, Rating - 800#	1.00	Nos		2045	2045	1000.00	1000	1,840.31	1,840.31	-45.66%	
129.00	INSTALLATION OF ABOVE GROUND BUTT WELDED/SOCKET WELDED VALVES (BALL / PLUG / CHECK / GATE / GLOBE) AS PER DETAILS GIVEN BELOW:									-		
130.00	Size - 12.0 Inch, Rating - 150#/300#/600#	2.00	Nos		26992	53984	20000.00	40000	24,289.85	48,579.70	-17.66%	
131.00	Size - 8.0 Inch, Rating - 150#/300#/600#	2.00	Nos		19218	38436	15000.00	30000	17,294.58	34,589.16	-13.27%	
132.00	Size - 4.0 Inch, Rating - 150#/300#/600#	15.00	Nos		11551	173265	5000.00	75000	10,394.66	1,55,919.90	-51.90%	
133.00	Size - 2.0 Inch, Rating - 150#/300#/600#	30.00	Nos		3379	101370	3500.00	105000	3,040.62	91,218.60	15.11%	
134.00	Size - ¾ Inch, Rating - 800#	40.00	Nos		1950	78000	1500.00	60000	1,753.94	70,157.60	-14.48%	
135.00	INSTALLATION OF ABOVE GROUND GAS ACTUATED VALVES AS PER DETAILS GIVEN BELOW				0					-		
136.00	Size - 4 Inch,	8.00	Nos		24002	192016	10000.00	80000	21,599.22	1,72,793.76	-53.70%	
137.00	Size - 8 Inch,	1.00	Nos		49231	49231	12000.00	12000	44,303.37	44,303.37	-72.91%	
138.00	Size - 12 Inch,	1.00	Nos		50000	50000	12000.00	12000	52,500.00	52,500.00	-77.14%	
139.00	SUPPLY OF ASSORTED PIPE, VALVES , FITTINGS AND FLANGES				0					-		
140.00	Complete work of supply of pipes, valves, fittings and flanges including all taxes, duties, transportation and inspection charges but not limited to, the following items in accordance with relevant specifications indicated in scope of work, drawings, specification and instructions of EIC and as per all provisions of the Contract Document.				0					-		
141.00	Handling including lifting, transportation from Contractor Stores to Contractor's workshop for fabrication and/ or to work-site for field fabrication and erection for all piping items supplied by Contractor.				0					-		
142.00	CARBON STEEL (CS) PIPES (As per attached QAP in Tender)				0					-		
143.00	CS Pipes 2" NB Sch XS API 5L, Gr.B, Seamless, BE / A 106 Gr.B.	150.00	Mtr.		1205	180750	2500.00	375000	1,084.56	1,62,684.00	130.51%	AHR
144.00	CS Pipes 1 1/2" NB Sch XS Seamless, BE / A 106 Gr.B.	5.00	Mtr.		720	3600	1500.00	7500	647.98	3,239.90	131.49%	AHR
145.00	CS Pipes 1" NB Sch 160, A 106 Gr.B.	5.00	Mtr.		684	3470	1000.00	5000	624.69	3,123.45	60.08%	AHR
146.00	CS Pipes ¾" NB Sch 160 , A 106 Gr.B.	40.00	Mtr.		600	24000	1000.00	40000	539.98	21,599.20	85.19%	AHR
147.00	VALVES				0					-		
148.00	Supply of Butt/Socket Welded- Female (SW) Ends Ball Valves as per PMS and Data Sheet (As per attached QAP in Tender)				0					-		
149.00	Size - 0.75 Inch, 800#, SW Ends, Design Standard - BS EN 150 17292, Floating type, Full Bore Ball Valve, Lever Operated	30.00	Nos		4800	144000	8000.00	240000	4,319.84	1,29,595.20	85.19%	AHR
150.00	Size - 1.0 Inch, 800#, SW Ends, Design Standard - BS EN 150 17292, Floating type, Full Bore Ball Valve, Lever Operated	1.00	Nos		6000	6000	8000.00	8000	5,399.80	5,399.80	48.15%	

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151.00	Size - 1 1/2 Inch, 800#, SW Ends, Design Standard - BS EN ISO 17292, Floating type, Full Bore Ball Valve, Lever Operated	1.00	Nos		12000	12000	8000.00	8000	10,799.61	10,799.61	-25.92%			
152.00	Size - 2 Inch, 600#, BW Ends, Design Standard - BS EN ISO 17292, Floating type, Full Bore Ball Valve, Lever Operated	2.00	Nos		38150	76300	30000.00	60000	34,331.19	68,662.38	-12.62%			
153.00	Supply of Globe Valves as per PMS, Data Sheet and QAP in Tender				0					-				
154.00	Size - 0.75 Inch, 800#, SW Ends, Design Standard - BS EN ISO 15761	1.00	Nos		4800	4800	8000.00	8000	4,319.84	4,319.84	85.19%	AHR		
155.00	Size - 1 Inch, 800#, SW Ends, Design Standard - BS EN ISO 15761	1.00	Nos		7200	7200	8000.00	8000	6,479.77	6,479.77	23.46%			
156.00	Size - 1 1/2 Inch, 800#, SW Ends, Design Standard - BS EN ISO 15761	1.00	Nos		12000	12000	8000.00	8000	10,799.61	10,799.61	-25.92%			
157.00	Size - 2 Inch, 600#, Flange Ends, Design Standard - BS EN ISO 15761	2.00	Nos		26020	52040	25000.00	50000	23,415.79	46,831.58	6.77%			
158.00	FLANGES				0					-				
159.00	Supply of SW Raised Face (SWRF) Flanges as per details below: (As per attached QAP in Tender)				0					-				
160.00	Size - 2 Inch, 600#, Thk/Sch - XS, Material - ASTM A105, Face/Finish - RF/125AARH, Dimn. Std. - ASME B16.5	1.00	Nos		1819	1819	2000.00	2000	1,637.47	1,637.47				
161.00	Size - 1 1/2 Inch, 600#, Thk/Sch - XS, Material - ASTM A105, Face/Finish - RF/125AARH, Dimn. Std. - ASME B16.5	1.00	Nos		1564	1564	1000.00	1000	1,407.26	1,407.26	-28.94%			
162.00	Size - 1.0 Inch, 600#, Thk/Sch - XS, Material - ASTM A105, Face/Finish - RF/125AARH, Dimn. Std. - ASME B16.5	1.00	Nos		1308	1308	1000.00	1000	1,177.07	1,177.07	-15.04%			
163.00	Size - 3/4 Inch, 600#, Thk/Sch - 160, Material - ASTM A105, Face/Finish - RF/125AARH, Dimn. Std. - ASME B16.5	1.00	Nos		1287	1287	1000.00	1000	1,157.91	1,157.91	-13.64%			
164.00	FITTINGS				0					-				
165.00	Supply of R=1.5D 90o BW Elbow as per details given below: (As per attached QAP in Tender)				0					-				
166.00	Size - 1 1/2 Inch, Thk/Sch - XS, Material - ASTM A 105, Dimn. Std. - ASME B 16.11	1.00	Nos		390	390	600.00	600	350.99	350.99	70.95%	AHR		
167.00	Size - 1.0 Inch, Thk/Sch - XS, Material - ASTM A 105, Dimn. Std. - ASME B 16.11	1.00	Nos		252	252	600.00	600	226.80	226.80	164.55%	AHR		
168.00	Size - 3/4 Inch, Thk/Sch - 160, Material - ASTM A 105, Dimn. Std. - ASME B 16.11	1.00	Nos		240	240	600.00	600	215.99	215.99	177.79%	AHR		
169.00	Supply of BW Un-equal Tee as per details given below: (As per attached QAP in Tender)				0					-				
170.00	Size - 2.0 Inch x 1.0 Inch, Thk/Sch - XS, Material - ASTM A 105 (CHARPY), Dimn. Std. - ASME B 16.9	1.00	Nos		660	660	2500.00	2500	593.98	593.98	320.89%	AHR		
171.00	Size - 2.0 Inch x 3/4 Inch, Thk/Sch - XS x 160, Material - A105 (CHARPY), Dimn. Std. - ASME B 16.9	1.00	Nos		1020	1020	2000.00	2000	917.97	917.97	117.87%	AHR		
172.00	Supply of Sockolet conforming to MSS-SP-97, Material - ASTM A105 and as per details given below: (As per attached QAP in Tender)				0					-				
173.00	12" x 1 1/2", 3000#	1.00	Nos		480	480	8000.00	8000	431.98	431.98	1751.94%	AHR		
174.00	12" x 1", 3000#	1.00	Nos		480	480	8000.00	8000	431.98	431.98	1751.94%	AHR		
175.00	12" x 3/4", 6000#	1.00	Nos		780	780	7000.00	7000	701.89	701.89	897.31%	AHR		
176.00	8" x 1 1/2", 3000#	1.00	Nos		480	480	7000.00	7000	431.98	431.98	1520.45%	AHR		
177.00	8" x 1", 3000#	1.00	Nos		480	480	6000.00	6000	431.98	431.98	1288.95%	AHR		
178.00	8" x 3/4", 6000#	1.00	Nos		720	720	6000.00	6000	647.98	647.98	825.95%	AHR		
179.00	4" x 1 1/2", 3000#	1.00	Nos		360	360	4000.00	4000	323.99	323.99	1134.61%	AHR		
180.00	4" x 1", 3000#	1.00	Nos		360	360	4000.00	4000	323.99	323.99	1134.61%	AHR		
181.00	4" x 3/4", 6000#	1.00	Nos		300	300	4000.00	4000	270.00	270.00	1381.48%	AHR		
182.00	Supply of Weldolet conforming to MSS-SP-97, Material - ASTM A105 (CHARPY)-As per attached QAP in Tender and as per details given below:				0					-				
183.00	12" x 2", Thk/Sch - XS	1.00	Nos		1020	1020	8000.00	8000	917.97	917.97	771.49%	AHR		
184.00	8" x 2", Thk/Sch - XS	1.00	Nos		780	780	8000.00	8000	701.98	701.98	1039.63%	AHR		
185.00	SUPPLY & INSTALLATION OF QOEC				0					-				
186.00	Supply and Installation of QOEC for ventline including all necessary piping fabrication works, including providing all necessary equipments, labour, materials, consumables and inputs other than Owner supplied materials and per forming all works as per drawings, data sheet, specifications enclosed with the Contract and directions of Engineer-in-Charge.				0					-				
187.00	QOEC 2" - 600 #	1.00	Nos.		150011	150011	12000.00	12000	1,34,995.12	1,34,995.12	-91.11%			
188.00	Supply of Reducer (CONCENTRIC) As per attached QAP in Tender and as per details given below:				0					-				
189.00	2" X 3/4" 6A1 XS x XXS ASTM A 234 GR. WPB B.W, ASME B16.25	10.00	Nos		921	9210	1200.00	12000	829.17	8,291.70	44.72%			
190.00	Nipple				0					-				
191.00	Supply of Nipple 3/4 inch, ASTM-106, Sch- XXS (One side Threaded (NPT)-Male, One side socket welded)- Length : 150MM	3.00	Nos		1000	3000	1000.00	3000	375.00	1,125.00	166.67%	AHR		
192.00	RADIOGRAPHY				0					-				
193.00	Performance of radiographic inspection by gamma radiation as per scope of work and as per specifications in piping of all types and thickness including providing / hiring of all necessary equipments, supply of all consumables, and whatever else even though not expressly mentioned but required to perform the work as per specifications and instructions of EIC (full circle re-radiography of the repaired joint and additional radiography necessitated due to poor performance of contractor's welder shall be carried out by the Contractor at his own cost and shall not be paid extra by Company). Radiographs shall be submitted to the EIC for acceptance whose decision shall be final and binding.				0					-				
194.00	Radiography 2" NB	200.00	Each		1372	274400	2000.00	400000	1,234.98	2,46,996.00	61.95%	AHR		
195.00	Radiography 4" NB	300.00	Each		1715	514500	2000.00	600000	1,543.23	4,62,969.00	29.60%			
196.00	Radiography 8" NB	50.00	Each		3122	156100	3000.00	150000	2,809.43	1,40,471.50	6.78%			
197.00	Radiography 6" NB	10.00	Each		1976	19760	3000.00	30000	1,778.40	17,784.00	68.69%	AHR		
198.00	Radiography 12" NB	20.00	Each		5397	107940	3000.00	60000	4,856.84	97,136.80	-38.23%			
199.00	HANDLING, LIFTING, TRANSPORTATION (INSTALLATION) OF EQUIPMENTS / VESSELS (Within Campus)				0					-				

Government eProcurement System Created By: MALEPPURATH GIRISH KUMAR Created Date/Time: 18-Jan-2022 09:32 AM Tender Title: Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis Tender ID: 2021_GAIL_98030_1												
Tender Inviting Authority: GAIL (India) Ltd.												
Name of Work:Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis												
Contract No: 040-LYONS-GAIL-021												
SCHEDULE OF WORK / ITEM(S)												
Sl.No	Description of Work / Item(s)	No. of Qty	Units	Estimated Rate	TECHNO GLOBAL SERVICES PVT LTD(GSTN-NA)		SHAKTI ENGINEERS(GSTN-NA)		COST ESTIMATE		Variance%	AHR
					Rate	Amount	Rate	Amount	Rate	Amount		
200.00	Handling, including lifting, transportation from Company's stores to Contractor's workshop for fabrication or/and to worksite for field fabrication, assembly of parts / sub-assemblies erection for all vessels, equipments supplied by company aboveground / underground at all elevation / depth, fixing of foundation bolts welding wherever required, aligning, grouting, hooking-up, cleaning and flushing by water draining, drying by compressed air providing all mountings, ancillary, enabling works as required and completing in all respect as per drawings, specification and instruction of EIC. Contractor's scope shall include supply of all material and accessories including but not limited to any fixtures, clamps, gasket, nut bolts, finish coat of painting including rub-down and touch-up of shop primer / paint scrapping of shop primer / paint and further their painting after application of primer as per specification, wherever required by Company.	10.00	Ton		8578	85780	3500.00	35000	7,719.10	77,191.00	-54.66%	
201.00	RECEIVING & TAKING OVER, HANDLING, TRANSPORTATION OF PIPES , FLANGES , FITTINGS , VALVES/ FILTERING/ METERING SKIDS/PRS /PIG TRAPS & OTHER EQUIPMENTS ETC (TERMINAL / MAINLINE MATERIAL / SURPLUS MATERIAL) - ANYWHERE IN INDIA				0					-		
202.00	The Contractor shall receive and take over, Handling including lifting, Owner-supplied bare / 3 LPE Coated line pipe / Ball Valves, Flanges, Fittings, filtering, metering, prs skid, pig traps and any other material from GAIL's designated store, inspection of material at dispatch point as well as destination point and its transportation to work-site (including transit insurance) / return of project surplus / separable material from Project site / Contractor's store to GAIL's store / warehouse including loading on trucks / trailers, transportation, unloading & stacking on wooden sleepers at Contractor's own stock-yard near work-site(s) / GAIL store (as applicable), including arrangement of truck / trailers / cranes / other material / machinery / manpower / consumables.				0					-		
203.00	Transportation by Trailer Fix up to 0-50 KM (Weight up to 18 Ton) per trip	5.00	Nos		81300	406500	35000.00	175000	73,162.21	3,65,811.05	-52.16%	
204.00	Transportation by Truck Fix up to 0-50 KM (Weight up to 10 Ton) per trip	5.00	Nos		48780	243900	30000.00	150000	43,897.32	2,19,486.60	-31.66%	
205.00	Transportation by Trailer Capacity 20 Ton (40' L X 8.6' W X 7' H) Beyond 50 KM in addition to SOR Item No. B006010.	10000.00	Per KM		143	1430000	600.00	6000000	128.77	12,87,700.00	365.95%	AHR
206.00	Transportation by Truck (Weight up to 10 Ton) Beyond 50 KM in addition to SOR Item No. B006020.	10000.00	Per KM		56	560000	575.00	5750000	52.68	5,26,800.00	991.50%	AHR
207.00	Note: (1) Transportation up to 50KM shall be paid by SOR no. B006010/B006020. Beyond 50KM transportation shall be paid by SOR no. B006030/B006040. (2) The nominal quantity of pipes, fittings and valves must be accommodated with other material like M-skid, PRS, Pig Launcher / receiver etc. if feasible. (3) The quantities given in above item no. are tentative only and shall not be considered to be binding. The quantities may be increased, decreased or deleted as per the actual site requirement and instructions / recommendations of Owner. The unit rate shall be operated to work out the final payment to the Contractor; (4) Above price shall be exclusive GST but inclusive of all type of toll taxes & duties, transit insurance during transportation & other insurance, etc. including all financial & commercial implication as per the tender document. (5) The weightlage of material may be varies as part load or full load as per the project requirement, Bidder to be quoted the price accordingly.				0					-		
208.00	Transportation of material for nominal quantities from despatch point to site on "TO PAY BASIS" and legal RTO charges due to the ODC consignments. And payment shall be reimbursed as per SCC Clause no 2.5.7 of Tender Document. Bidder not to quote for this item.	200000.00	LIMIT		0	0	0.00	0		-		
209.00	FIRE EXTINGUISHERS (Portable)				0					-		
210.00	Supply, installation and commissioning of the following fire extinguishers:				0					-		
211.00	CO2 (10 Kg) considered 1 no. for each locations	10.00	No.		37042	370420	18000.00	180000	33,333.68	3,33,336.80	-46.00%	
212.00	10 kg capacity DCP fire extinguisher (portable) considered 1 no. for each locations	10.00	No.		32700	327000	15000.00	150000	29,426.73	2,94,267.30	-49.03%	
213.00	6 kg capacity DCP fire extinguisher (portable) considered 1 no. for each locations	10.00	No.		19729	197290	8000.00	80000	17,754.03	1,77,540.30	-54.94%	
214.00	4 Nos. Sand Buckets with stand & canopy considered 1 set for each location	10.00	Set		17155	171550	18000.00	180000	15,438.20	1,54,382.00	16.59%	
215.00	Hook-up works at tap-off point, Despatch and Receiving Terminal including making provision for hooking up and carrying out shutdown activities at terminals if necessary				0					-		
216.00	Carbon Steel Piping Work with painting				0					-		
217.00	Transportation of all piping items from Contractor's storage point to work site complete work of fabrication, erection, painting, testing and making ready for further commissioning / start-up of carbon steel piping of all sizes and ratings including supply of all consumables, NDT (Radiography), equipment, manpower and other resouces and execution of, but not limited to, the following works in accordance with relevant specifications indicated in particular job specification & scope of work indicated in SCC, drawings, specification and instructions of EIC and as per all provisions of the Contract Document				0					-		
218.00	Fabrication including cutting, edge preparation, inclusive of grinding the edges of pipes, fittings, etc. to match with the matching edges of uneven / different thickness wherever required, welding, attachment of all pipe fittings including supply of all consumables required for completion of job.				0					-		
219.00	Supply of all manpower, equipment, etc. for completion of all works as per scope of work and as per drawings, specifications and instructions of EIC wherever required. Preparation of Construction, Fabrication, isometric and As-built drawings.Carrying out Non-destructive testing as required.				0					-		
220.00	Surface preparation before application of primer by means of sand blasting including supply of approved quality of sand, manpower, machineries, tools & tackles to achieve required roughness as per specification and as per instruction of EIC.				0					-		

Government eProcurement System Created By: MALEPPURATH GIRISH KUMAR Created Date/Time: 18-Jan-2022 09:32 AM Tender Title: Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis Tender ID: 2021_GAIL_98030_1												
Tender Inviting Authority: GAIL (India) Ltd.												
Name of Work:Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis												
Contract No: 040-LYONS-GAIL-021												
SCHEDULE OF WORK / ITEM(S)												
Sl.No	Description of Work / Item(s)	No. of Qty	Units	Estimated Rate	TECHNO GLOBAL SERVICES PVT LTD(GSTN-NA)		SHAKTI ENGINEERS(GSTN-NA)		COST ESTIMATE		Variance%	AHR
					Rate	Amount	Rate	Amount	Rate	Amount		
221.00	Testing/ drying/cleaning/Golden Tie -In with existing Pipeline					0				-		
222.00	Precommissioning & making operational all piping system and equipments					0				-		
223.00	Completion of all such work in all respects as per scope of work and as per drawings, specifications and instructions of the COMPANY and keeping the system ready in all respects for further commissioning and start-up.					0				-		
224.00	Piping different grades & thickness upto 12" dia Pipe	150.00	Inch- Dia		3281	492150	2500.00	375000	2,952.85	4,42,927.50	-15.34%	
225.00	Piping different grades & thickness above 12" and upto 36" dia Pipe	50.00	Inch- Dia		4905	245250	5500.00	275000	4,414.01	2,20,700.50	24.60%	
226.00	INSTALLATION OF FILTERING/ METERING/ PRS SKID AND SCRAPER TRAPS					0				-		
227.00	Installation of above ground owner supplied Filtering , Metering , PRS Skid, Pig traps and other equipment at work site up to mechanical completion in all respect, inclusive of painting suitable for Normal Corrosive Environment at all elevation , fixing of foundation bolts, welding wherever required, aligning, grouting, hooking-up, enabling works as required and completing in all respect as per drawings, specification and instruction of EIC. Contractor scope also include to provide commissioning assistance during pre-commissioning / commissioning of filtering skid/metering skid /PRS/pig trap and other equipments. Note: Installation and commissioning of Instrumentation items such as Gas Chromatograph (GC) & metering panel(flow computer panel), cable laying are separately covered under Instrumentation SOR					0				-		
228.00	Installation of above ground Flanged/ Welded Scraper Traps up to mechanical completion in all respect inclusive of painting suitable for Normal Corrosive Environment	1.00	No		272500	272500	50000.00	50000	2,45,222.75	2,45,222.75	-79.61%	
229.00	Installation of above ground Filtering/ Metering/ Pressure Reducing Skid up to mechanical completion in all respect inclusive of painting suitable for Normal Corrosive Environment at various locations	8.00	No		259944	2079552	50000.00	400000	2,33,923.96	18,71,391.68	-78.63%	
230.00	DISMANTLING AND CLEARING OF FILTERING/ METERING/ PRS SKID / SCRAPER TRAPS & OTHER EQUIPMENTS					0				-		
231.00	Dismantling and Clearing of old (presently installed) Skid / Scraper Traps and or other Equipments, as per instruction of EIC. Contractor scope also include to provide necessary manpower, equipments & machinery for the above work.	2.00	Ton		60004	120008	25000.00	50000	53,998.05	1,07,996.10	-53.70%	
232.00	PIPE SUPPORTS					0				-		
233.00	Supply, fabrication and erection of pipe/ equipment supports (for all sizes /thickness) including shoes, pipes, cross-overs, platforms, ladders, railings etc. as required, cradles, turn buckles, T-posts for all types of guides, anchors, special supports for cold/hot insulated pipes etc. if applicable, all necessary equipment, consumables, labour etc. for completing all works including supply of bolts, nuts, washers, U-clamps, wooden blocks etc. as required for supporting, supply and application of paints and primers suitable for normal corrosive painting environment as defined in contract document and as per standard specification for painting specification, Drawings, Specification, Standards, other provisions of Contract and instruction of Engineer-in-Charge.					0				-		
234.00	CS Structural Steel	.20	ton		147694	29538.8	200000.00	40000	1,32,909.59	26,581.92	50.48%	AHR
235.00	NITROGEN SUPPLY					0				-		
236.00	Supply of Nitrogen for preservation of Pipeline/ purging of pipeline / hookup & shut down activities	400.00	m3		284	113600	400.00	160000	255.19	1,02,076.00	56.75%	AHR
237.00	Note: (1) The quantities given above against individual items are indicative and shall not be considered to be binding. The quantities may be increased, decreased or deleted at site at the time of actual execution. Procurement shall be done as per actual site condition, approved construction drawings and as per instruction of EIC. The unit rate shall be operated to work out the final payment to the Contractor; a (2) Quantities given against individual item may be utilised / used for other consumers in same area.					0				-		
238.00	INSTALLATION OF EQUIPMENT OTHER THAN ITEM NUMBER B009000					0				-		
239.00	Installation of above ground owner supplied equipment other than listed in item No B009000 at work site up to mechanical completion in all respect, inclusive of painting suitable for Normal Corrosive Environment at all elevation , fixing of foundation bolts, welding wherever required, aligning, grouting, hooking-up, enabling works as required and completing in all respect as per drawings, specification and instruction of EIC. Contractor scope also include to provide commissioning assistance during pre-commissioning / commissioning of equipments	1.00	ton		109403	109403	35000.00	35000	98,451.94	98,451.94	-64.45%	
240.00	SECTION-C [CIVIL / STRUCTURAL & ARCHITECTURAL]					0				-		
241.00	SURVEY WORKS					0				-		

Government eProcurement System Created By: MALEPPURATH GIRISH KUMAR Created Date/Time: 18-Jan-2022 09:32 AM Tender Title: Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis Tender ID: 2021_GAIL_98030_1												
Tender Inviting Authority: GAIL (India) Ltd.												
Name of Work:Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis												
Contract No: 040-LYONS-GAIL-021												
SCHEDULE OF WORK / ITEM(S)												
Sl.No	Description of Work / Item(s)	No. of Qty	Units	Estimated Rate	TECHNO GLOBAL SERVICES PVT LTD(GSTN-NA)		SHAKTI ENGINEERS(GSTN-NA)		COST ESTIMATE		Variance%	AHR
					Rate	Amount	Rate	Amount	Rate	Amount		
242.00	Conducting topographical ground/land survey in the specified area as shown in the tender drawings by conventional/GPS or any other standard method, covering details of physical features like Rivers, Nallahs, Lakes, Ponds, wells, pits, Forest, Trees, Roads, culverts, transmission lines, telegraph/ telephone and electric poles, underground or any other services, cross drainage works including cross sectional details of nallah etc. including establishing high flood level with source of information, identification of any monument, historical structure, wild life sanctuary in the vicinity, storm water disposal point with levels, cross-section details of nallah, recording spot levels, including providing in tabulation girth wise no. of trees etc as specified, plotting and developing topographical contour maps, showing true north including establishing survey reference stations, key plan etc. including all equipment's, instruments, personnel's, clearing of bushes as per requirement for intervisibility to carry out survey work etc. , complete work in all respects as per drawings, specifications and directions of Engineer-in-Charge including submitting hard copies of drawings/map and supply of electronic files. Note: Survey work shall be carried out by survey agency approved by Contractor and shall be submitted to PMC/EIC for review.	150.00	M2		123	18450	300.00	45000	110.12	16,518.00	172.43%	AHR
243.00	GEO TECHNICAL INVESTIGATION				0					-		
244.00	Conducting soil investigation with boring of minimum150mm dia. boreholes of maximum 10m depth including all field tests and laboratory tests, mobilization and demobilization of equipments & personnel etc. for soil investigation for each borehole location . complete work in all respects as per drawings, specifications and directions of Engineer-in-Charge including submitting hard copies of Reports & recommendations and supply of electronic files.	1.00	each		78415	78415	50000.00	50000	70,565.30	70,565.30	-29.14%	
245.00	FENCING & GATE				0					-		
246.00	Supplying, fixing and tensioning in position 2.5mm(12gauge), 2 ply, 4 points, GI Barbed wire designation A-1 conforming to IS:278 in horizontal rows and cross diagonals for compound wall "Y" shaped overhang etc. with necessary GI staples, clips and pins, GI straining bolts and binding wire with all labour and materials etc. complete as per drawings, specifications and directions of Engineer-in-Charge.(The barbed wire shall be measured in linear length of the barbed wire actually fixed).	300.00	RM		271	81300	2500.00	750000	243.87	73,161.00	925.14%	AHR
247.00	Supplying, fabricating and fixing in position structural steel line posts, straining posts, struts for "Y" shaped overhang etc. conforming to IS:2062 over brick/stone Masonry/ RCC compound walls/ columns, cutting to required size as per drawings and specifications, welding where necessary, embedding in position, holding to correct level and line, any auxiliary structure for dummy supports, drilling holes and painting as per painting specification attached with tender, cutting brick/rubble/concrete surfaces if necessary, grouting with M20 grade concrete including cost of grout with all labour and material etc. complete as per drawings, specifications and directions of Engineer-in- Charge. (All materials including cement shall be supplied by contractor) For Normal Industrial Environment.	100.00	KG		240	24000	200.00	20000	215.58	21,558.00	-7.23%	
248.00	Supplying, fabricating and fixing G.I. chain link fencing with 3.15mm dia. wire, 50x50mm diamond mesh chain link fence fabric conforming to IS:2721 fixed to steel/RCC posts/struts above ground level, including supply of chain link fencing fabric, stretcher bars, staples, etc. required for fixing the fencing, fixing of chain link fencing between straining posts, fixing of bottom of fencing to a concrete sill beams by means of hairpin beams by means of hairpin staples, including supply and fixing line wires, complete as per drawings, specifications and directions of Engineer -in- Charge.	150.00	Sqm.		2073	310950	2000.00	300000	1,865.15	2,79,772.50	7.23%	
249.00	Providing and fixing in position Steel Entrance Gates consisting of MC- 75 framework for shutters, 20mm square M.S. vertical bars welded to the framework @100mm c/c, 3mm thick M.S. sheet boxing, locking arrangement, 25mm thick, 75mm dia M.S. wheel with ball bearing including fixing the gate to RCC/ masonry by M.S. hinge arrangement (75mm x 75mm x 6mm M.S. angles, bolt, washers) and M.S. hold fast grouted with M-15 grade concrete, providing and fixing M.S. pivot, 50mm x 50mm x 6mm M.S. Tee bent to shape and embedded in road surface for gate opening track, gate stopper, painting the gate with approved shade and quality synthetic enamel paint (two coats) and a coat of approved quality primer, ensuring smooth operation of the gate etc. all complete as per attached standard drawing.	400.00	kg		234	93600	180.00	72000	209.73	83,892.00	-14.18%	
250.00	EARTHWORK IN SITE GRADING				0					-		

Government eProcurement System Created By: MALEPPURATH GIRISH KUMAR Created Date/Time: 18-Jan-2022 09:32 AM Tender Title: Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis Tender ID: 2021_GAIL_98030_1												
Tender Inviting Authority: GAIL (India) Ltd.												
Name of Work:Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis												
Contract No: 848-LYONS-GAIL-021												
SCHEDULE OF WORK / ITEM(S)												
Sl.No	Description of Work / Item(s)	No. of Qty	Units	Estimated Rate	TECHNO GLOBAL SERVICES PVT LTD(GSTN-NA)		SHAKTI ENGINEERS(GSTN-NA)		COST ESTIMATE		Variance%	AHR
					Rate	Amount	Rate	Amount	Rate	Amount		
251.00	Earthwork in excavation and filling in all types of soil except soft rock and hard rock for general site grading for all heights and depths including clearing and stripping etc. in excavation areas, removing shrubs, grass, bushes, vegetable growth and other objectionable materials, trees upto and inclusive of a girth of 30 cms. (girth measured at a height of one metre above ground level) including uprooting of roots, etc., dewatering, if necessary, sorting out the excavated soil into serviceable and unserviceable materials in excavation areas and including filling in filling areas with serviceable material for general site grading and roads for all heights and depths to proper levels, slopes, grades and camber including clearing and stripping in filling areas as per specifications, consolidating exposed natural soil to 90% of max. laboratory dry density as per IS-2720 Part-VII, cutting of trees of girth upto and inclusive of 30 cms, removal of vegetation, breaking clods, spreading in layers not exceeding 30 cms loose thickness, watering, ramming and compacting with power road rollers to give at least 90% of max. laboratory dry density, dressing, leveling, testing, etc. and disposal of unserviceable materials/surplus earth if any, as directed by Engineer-in-Charge including stacking and/or dumping and dressing the same in demarcated areas etc. complete as per specifications, drawings and directions of Engineer-in-Charge. (The leads for the above mentioned operations shall be within the boundry limit of the plant and measurement shall be taken in the cutting area only).	50.00	M3		494	24700	800.00	40000	444.34	22,217.00	80.04%	AHR
252.00	PAVER BLOCK Flooring				0					-		
253.00	Supplying and placing in position as per approved pattern of Cement Concrete Inter locking paver block 80 mm thick of approved shape, rough finish, M-40 strength of approved brand laid over the sand bed of minimum 100 mm thick. The CC interlocking blocks to be of uniform Grey colour or as approved by EIC complete in all respects , as per technical specifications and directions of the Engineer-in-charge Note :- 1. Rate to include cost of all labour, tools, tackles, equipment, hire charges, supply of all materials such paver blocks, sand, earth work in excavation in cutting earth in all conditions, shuttering with all bye works and sundry works. 2. To be read with in conjunction with Particular Job Specification 3. Supply of all materials and providing labour, tools and tackles are in contractor's scope	100.00	M2		3133	313300	2400.00	240000	2,819.56	2,81,956.00	-14.88%	
254.00	RCC HUMME PIPE CULVERT				0					-		
255.00	Providing, laying, jointing and testing RCC hume pipes of 300mm dia. and np3 class for culverts, road crossing, incl. excavation in all strata up to an average depth of 1 m cutting, collars jointing in 1:2 cement mortar etc. complete as per specifications and as directed by the engineer-in-charge.	10.00	M		5228	52280	3000.00	30000	4,704.35	47,043.50	-36.23%	
256.00	Providing, laying, jointing and testing RCC hume pipes of 500mm dia. and np3 class for culverts, road crossing, incl. excavation in all strata up to an average depth of 1 m cutting, collars jointing in 1:2 cement mortar etc. complete as per specifications and as directed by the engineer-in-charge.	2.00	M		9265	18530	5000.00	10000	8,337.57	16,675.14	-40.03%	
257.00	KERB STONE FIXING				0					-		
258.00	Providing and fixing precast concrete Kerb stones (125 wide X 300 deep) of M-30 grade or equivalent of approved make and shape at or near ground level as per approved pattern and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand) including the cost of required centering, shuttering and finishing smooth with 6 mm thick cement plaster 1:3 (1 cement : 3 fine sand) wherever required over 75 mm thick PCC 1:4:8 levelling course, complete in all respects as per scope of work, detailed construction drawings, technical specifications and directions of the Engineer-In-Charge. Note:- 1. Rate to include all labour, tools, tackles, factory manufactured & steam cured Kerb Stones, shuttering, transportation, water charges, earth work if any, PCC etc complete	2.00	M		1090	2180	7000.00	14000	980.89	1,961.78	613.64%	AHR
259.00	VALVE PIT				0					-		
260.00	Supply, & Construction of Valve Pit-TYPE I (3.0m x 1.5 m x 1.5m) in size (internal dimension) as per attached tender drawing, technical specification and direction of Engineer-In-Charge complete in all respect. Note: 1. Rate includes all the supply of material, labour, machinery etc. to complete the job in all respect. No any separate payment shall be made under other clauses mentioned elsewhere. 2. For stone breaking for making the pit separate payment shall be done as per SOR available in tender.	1.00	Nos.		300000	300000	70000.00	70000	1,07,996.10	1,07,996.10	-35.18%	
261.00	SAND FILLING				0					-		
262.00	Supplying and filling approved SAND of specified quality under floors, in foundations, plinths, tank foundations etc. for all depths and heights including cost of sand, royalties, transportation to site for all leads and lifts, including loading, unloading, spreading in layers of loose thickness not exceeding 150 mm, watering, ramming, compacting with mechanical compactors and/or other equipment to the specified levels to achieve 85% relative density as per IS-2720 Part XIV, including preparation of subgrade to the required slope, providing testing apparatus and testing the degree of consolidation all complete as per drawings, specifications and direction of Engineer-in-charge. The rates shall be inclusive of the cost of all labour, material equipments etc. all complete .	100.00	M3		3603	360300	3000.00	300000	3,242.19	3,24,219.00	-7.47%	
263.00	DEMOLITION OF R.C.C./BRICKS/STONE MASONRY/STEEL WORK				0					-		

Government eProcurement System Created By: MALEPPURATH GIRISH KUMAR Created Date/Time: 18-Jan-2022 09:32 AM Tender Title: Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis Tender ID: 2021_GAIL_98030_1													
Tender Inviting Authority: GAIL (India) Ltd.													
Name of Work:Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis													
Contract No: 040-LYONS-GAIL-021													
SCHEDULE OF WORK / ITEM(S)													
Sl.No	Description of Work / Item(s)	No. of Qty	Units	Estimated Rate	TECHNO GLOBAL SERVICES PVT LTD(GSTN-NA)		SHAKTI ENGINEERS(GSTN-NA)		COST ESTIMATE		Variance%	AHR	
					Rate	Amount	Rate	Amount	Rate	Amount			
264.00	Site clearance by demolition of R.C.C./Brickwork/Stone Masonry/Stone Soling, Flexible pavements etc. along with removing the debris and disposal of unserviceable material to any lead and staking of serviceable materials, handing over serviceable material to concerned department if required as per technical specifications and direction of Engineer-in-charge. Note: 1. Rate includes cost of all labour, tools, tackles, hire charges, royalties, levies, leads, loading/unloading, transportation, water, electric power, illumination etc. complete in all respects as per scope of work, detailed construction drawings, technical specifications and direction of Engineer-in-charge. 2. Demolition of RCC/PCC/Brick Masonry/Road will be paid in NET CUM as demolished.	2.00	M3		4503	9006	2500.00	5000	4,052.06	8,104.12	-38.30%		
265.00	Site clearance by demolition of STEEL work etc. along with removing the disposal of unserviceable material to any lead and staking of serviceable materials, handing over serviceable material to concerned department if required as per technical specifications and direction of Engineer-in-charge. Note: 1. Rate includes cost of all labour, tools, tackles, hire charges, royalties, levies, leads, loading/unloading, transportation, water, electric power, illumination etc. complete in all respects as per scope of work, detailed construction drawings, technical specifications and direction of Engineer-in-charge. 2. Demolition of steel work will be paid in NET Kg as demolished.	50.00	Kg		210	10500	25.00	1250	188.99	9,449.50	-86.77%		
266.00	ERC/IRC				0					-			
267.00	Construction of ERC/IRC as per Std. including supplying and laying in position PVC pipes conforming to IS:4985 Class-I for electrical and instrumentation Road Crossings as per standard drawing and its addendum, including cutting the pipes if necessary, lowering, laying in position to proper levels, etc. embedded in M-20 grade concrete, providing proper jointing as per code requirements or manufacturer's recommendations, etc. including earth work in excavation in all types of soil except soft and hard rock, backfilling and making good the surface, including cutting of new/ existing roads and making good the same including supply of any road material if required, (Back filling with road material shall be done in 150 mm thick layers well watered and compacted), including supplying and providing in the encasement concrete, cable crossing indicator made out of 4 mm thick MS circular plate of dia. 150mm welded to 16 mm dia. MS rod of approximately 1.0 m length and painting and lettering with 2 coats of approved enamel paint of approved colour over a coat of red oxide primer etc., supply and fixing of reinforcement as per drawing, including disposal of surplus earth anywhere within plant boundary limit etc. all complete as per drawings, specifications and instructions of Engineer-in-Charge.	10.00	M		6273	62730	300.00	3000	5,645.22	56,452.20	-94.69%		
268.00	EARTH WORK IN FOUNDATION				0					-			
269.00	Earth work in Excavation below ground level for all kinds of works in ALL TYPES OF SOIL as classified in specification for a depth upto 1.5m including removal of vegetation, shrubs and debris, cutting and dressing of sides in slopes, levelling, grading and ramming of bottoms, dewatering of accumulated water from any source and keeping the surface dry for subsequent works and disposal or stacking of excavated material within a lead of 100m, as directed including providing temporary supports to existing service lines like water pipes, sewage pipes, electric overhead and underground cables etc. all complete.	300.00	M3		500	150000	800.00	240000	449.70	1,34,910.00	77.90%	AHR	
270.00	For depth beyond 1.5m and upto & inclusive of 3.0m.	50.00	M3		772	38600	850.00	42500	694.55	34,727.50	22.38%		
271.00	Backfilling after execution of the WORK to proper grade and level with selected materials from available excavated soil from spoil heaps, including re-excavating the deposited soil excavated earlier, breaking clods, laying at all depths and heights in layers of thickness not exceeding 15 Cms. watering, rolling and ramming by manual methods/mechanical compactors to achieve 90% laboratory maximum dry density, dressing, trimming etc. in foundations, plinths, trenches, pits etc. all complete.	200.00	M3		343	68600	400.00	80000	308.26	61,652.00	29.76%		
272.00	EARTHWORK IN FILLING including supply by excavating the earth from BORROW AREAS arranged by CONTRACTOR for all leads, transporting the earth from borrow area including cleaning & stripping the earth at borrow areas, breaking clods, loading, unloading and laying at all depths and heights in layers of thickness not exceeding 15 cms., watering, rolling and ramming by manual methods/mechanical compactors to achieve 90% of the maximum laboratory dry density, dressing, trimming, levelling the top surface etc. in foundations, plinths, trenches etc. all complete.	50.00	M3		1683	84150	1800.00	90000	1,513.90	75,695.00	18.90%		
273.00	Transporting and disposing the SURPLUS EARTH AND DEBRIS including shrubs and vegetations from construction area beyond the initial lead of 100M including re-excavating the deposited soil excavated earlier, transportation, loading, unloading, laying at all depths and heights, stacking, levelling and dressing both the area (viz. from where the earth is transported and where it is deposited) to required levels and slopes complete with all lifts as directed. For carting on the basis of truck measurements (volume of truck reduced by 30% for voids) i) Upto 1.0Km.	50.00	M3		495	24750	300.00	15000	444.60	22,230.00	-32.52%		
274.00	PLAIN & REINFORCED CEMENT CONCRETE:				0					-			

Government eProcurement System Created By: MALEPPURATH GIRISH KUMAR Created Date/Time: 18-Jan-2022 09:32 AM Tender Title: Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis Tender ID: 2021_GAIL_98030_1												
Tender Inviting Authority: GAIL (India) Ltd.												
Name of Work:Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis												
Contract No: 040-LYONS-GAIL-021												
SCHEDULE OF WORK / ITEM(S)												
Sl.No	Description of Work / Item(s)	No.of Qty	Units	Estimated Rate	TECHNO GLOBAL SERVICES PVT LTD(GSTN-NA)		SHAKTI ENGINEERS(GSTN-NA)		COST ESTIMATE		Variance%	AHR
					Rate	Amount	Rate	Amount	Rate	Amount		
275.00	Providing and laying PLAIN CEMENT CONCRETE for all depths below and upto plinth level in foundations,drains, fillings, non-suspended floors, pavements & ramps or any other works etc. including shuttering, tamping, ramming, vibrating, curing, shuttering etc. all as specified in any shape, position, thickness and finishing the top surface rough or smooth as specified and directed all complete for concrete of nominal mix 1:4:8 by volume (1 Cement: 4 Coarse Sand: 8 Crushed Stone Aggregates/Gravels with 40mm and down size graded crushed stone aggregates.	40.00	M3		11000	440000	9000.00	360000	8,748.25	3,49,930.00		
276.00	Concrete of nominal mix of 1:5:10 by volume (1 Cement :5 Coarse Sand : 10 Crushed Stone Aggregates/Gravels).	2.00	M3		12000	24000	8000.00	16000	10,299.36	20,598.72	2.88%	
277.00	Providing and laying PLAIN CEMENT CONCRETE for all depths below and upto plinth level in foundations,drains, fillings, non-suspended floors, pavements & ramps or any other works etc. including shuttering, tamping, ramming, vibrating, curing, etc. all as specified in any shape, position, thickness and finishing the top surface rough or smooth as specified and directed all complete for concrete grade M20 with 20mm and down size graded crushed stone aggregates/Gravels.	1.00	M3		13000	13000	12000.00	12000	9,087.96	9,087.96	-22.33%	
278.00	Providing and laying REINFORCED CEMENT CONCRETE OF M-25 GRADE with 20mm and down size graded crushed stone aggregates/gravel in SUB-STRUCTURE of all types e.g. foundations, footings, raft, beams, slabs, pile caps, retaining walls, jambs, counterforts, buttresses, trenches, manholes,pipe encasement, catchpits, drains, RCC pits, equipment/machine foundations, pedestals, pipe sleepers, columns, plinth beams, suspended floors, beams, staircases, landings, steps, brackets etc. (including single pour concreting upto 250m3), including cost of admixtures if used,providing pockets, openings, recesses, chamfering etc., wherever required, vibrating, tamping, curing and rendering if required to give a smooth and even surface etc. all complete (excluding the Cost of Reinforcement and Shuttering) for all depths below and upto plinth level in any shape, position and thickness etc. all complete as specified, shown and directed.	130.00	M3		15000	1950000	14000.00	1820000	11,579.14	15,05,288.20	32.04%	
279.00	Providing and laying REINFORCED CEMENT CONCRETE OF M-25 GRADE with 20mm and down size graded crushed stone aggregates/gravel in SUPER STRUCTURE in suspended floors, slabs, beams, columns, walls including counterforts, staircases, landings, steps, facias, fins, mouldings, gutters, shelves, windowsills, canopies, lintels, girders, ducts, brackets, chajjas with drip moulds, pedestals, posts, struts, equipment/machine foundations, ramps etc. (including single pour concreting upto 250m3) including cost of admixtures if used providing pockets, openings, recesses, chamfering wherever required, vibrating, tamping, curing and rendering if required to give a smooth and even surface etc. all complete (excluding the Cost of Reinforcement and Shuttering) for all heights above plinth level in any shape, position, thickness etc. all complete as specified, shown and directed.	20.00	M3		15000	300000	15000.00	300000	10,584.79	2,11,695.80	20.91%	
280.00	Manufacturing, transporting, supplying and erecting in position Reinforced Cement Concrete PRECAST ELEMENTS such as columns, beams, cover slabs, lintels, louvers, fins, shelves etc. of M-25 grade with 20mm and down size graded crushed stone aggregates/gravel, for all leads, levels, shapes and thickness including all moulds, shuttering and centering, vibrating, tamping, curing, chamfering wherever required, finishing the top surface with cement mortar 1:3 (1 Cement : 3 Sand) to give a smooth and even surface, or non skid finish as specified, providing lifting hooks, metal inserts, making holes pockets, (only M.S. inserts to be measured & paid separately) transporting to site, erecting, levelling, aligning and fixing in position with cement mortar 1:3 (1Cement : 3 Coarse Sand), breaking bricks and/or concrete surfaces and making good the same etc. all complete (excluding the Cost of Reinforcement) and as directed. 1) Each unit upto and inclusive of 500 Kg.	1.00	M3		16336	16336	12000.00	12000	14,701.10	14,701.10	41.71%	
281.00	CENTERING AND SHUTTERING					0				-	-18.37%	
282.00	Providing and fixing CENTERING AND SHUTTERING in foundations, footings, raft beams, slabs, pile caps, retaining walls, jambs, counter-forts, buttresses, trenches, equipment/machine foundations, pedestals, abutments, pipe sleepers, columns, plinth beams, lintels, suspended slabs, beams, staircases, landings, steps, non-circular tunnels/bunkers/silos/ shafts/ hoppers/liquid storage structures etc. including shuttering for single pour concreting, strutting, bracing, propping etc., keeping the same in position during concreting and removal of the same after specified period etc. for Straight/ Inclined Shuttering, keeping necessary provision for inserts, projecting dowels, anchor bolts or any other fixture etc. all complete and as specified and directed.					0				-		
283.00	i) For all depths below and upto & inclusive of plinth level.	350.00	M2		686	240100	600.00	210000	617.49	2,16,121.50	-2.83%	
284.00	ii) For all heights above plinth level.	180.00	M2		888	159840	800.00	144000	799.43	1,43,897.40	0.07%	
285.00	REINFORCEMENT					0				-		
286.00	Supplying and placing in position HIGH STRENGTH DEFORMED STEEL BARS REINFORCEMENT (conforming to IS:1786, Grade Fe 415), for R.C.C. work including transporting the Steel, straightening, cleaning, decolling, cutting, bending to required shapes and lengths as per details, binding with contractor's own 16 SWG black soft annealed binding wire at every intersection, supplying and placing with proper cover blocks, supports, chairs, overlaps, welding, spacers, fanhooks etc. for all heights and depths etc. all complete as directed.	10.00	MT		150000	1500000	85000.00	850000	1,20,295.25	12,02,952.50	-29.34%	
287.00	STRUCTURAL STEEL WORKS					0				-		

Government eProcurement System Created By: MALEPPURATH GIRISH KUMAR Created Date/Time: 16-Jan-2022 09:32 AM Tender Title: Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis Tender ID: 2021_GAIL_98030_1												
Tender Inviting Authority: GAIL (India) Ltd.												
Name of Work:Construction of Steel Pipelines and Associated facilities for CGD Connectivtities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis												
Contract No: 040-LYONS-GAIL-021												
SCHEDULE OF WORK / ITEM(S)												
Sl.No	Description of Work / Item(s)	No.of Qty	Units	Estimated Rate	TECHNO GLOBAL SERVICES PVT LTD(GSTN-NA)		SHAKTI ENGINEERS(GSTN-NA)		COST ESTIMATE		Variance%	AHR
					Rate	Amount	Rate	Amount	Rate	Amount		
288.00	Supplying, transporting, storing, fabricating in position and testing/examining bolted and/or welded STRUCTURAL STEEL WORKS at all levels and locations including all builtup sections/compound sections made out of rolled sections and/or plates/bent plates in trusses, purlins, wind ties, wind girders, columns, portals, racks, frameworks, crane gantries, surge girders, bracings, floor beams, lifting beams, monorails, platforms, staircases (excluding chequered plates and gratings), ladders, stoppers, brackets, side runners, sagrods, supports for equipment and technological accessories and process piping, hand railings, posts, conveyor galleries, trestles, towers, masts, junction houses etc., cutting to required size, straightening/bending if required, edge preparation, cleaning, preheating, bolting/welding of joints, (including sealing the joints of box sections with continuous welding), finishing edges by grinding, fixing in line and level with temporary staging & bracing and removal of the same after erection, grouting with Ordinary Grout or premix free flow Nonshrink Grout as specified, including preparation and submission of detailed fabrication drawings and applying primer after fabrication as per specification (for normal corrosive environment), etc. all complete	1.00	MT		175000	175000	160000.00	160000	1,28,658.18	1,28,658.18	24.36%	
288.00	MISCELLANEOUS STEEL WORKS					0				-		
290.00	Supplying, fabricating, fixing and keeping in position at all levels and locations THREADED ANCHOR BOLTS of all diameters and nomenclature including nuts, washers, anchor plates, pipe sleeves etc. in foundations, columns, pedestals, slabs, beams, walls etc. or any other place as directed including handling & transporting, straightening if required, turning from relevant size M.S. rounds to required diameter, threading, welding, providing necessary templates and auxilliary dummy structures, if any, necessary tying and welding with reinforcement, adjustment of shuttering & reinforcement/any other fixture, greasing exposed metal surfaces, covering bolts and packing the sleeves with jute cloth etc. all complete as specified and directed.	1.00	MT		257345	257345	170000.00	170000	2,31,584.73	2,31,584.73	-26.59%	
291.00	Supplying, transporting, storing, fabricating and fixing in position M.S. METAL INSERT (with lugs) of any shape made out of flats, plates, rolled sections, pipes etc. providing necessary templates, staging, cutting, straightening, if required, bolting, welding as required and embedding in position on both Plain and Reinforced Cement concrete members inclusive of adjusting shuttering & reinforcement/any other fixture, welding where necessary, tying and holding to correct level, line and position, any auxilliary dummy structures to support the heavy inserts, painting exposed surfaces with a coat of Red Oxide Zinc Chromate Primer etc. all complete for all depths and heights as specified and directed.	1.00	MT		185860	185860	160000.00	160000	1,67,255.63	1,67,255.63	-4.34%	
292.00	Supplying, fabricating and erecting in position at all levels and locations bolted, clamped and/or welded GRATING (fabricated as per standards) made out of M.S. flats/M.S. flats with M.S. rounds in walkways, platforms, stair treads etc. including cutting to required size, shape, making holes, notches, openings of required size, nosing, straightening if required, making the edges smooth, removing the burrs, fabricating clamps, fixing, welding, preparation and submission of fabrication drawings and preparing the surfaces for painting, surface cleaning, wire brushing, removal of mill scale, dust, rust, oil or grease and applying one shop coat of Red Oxide Zinc Chromate Primer after fabrication etc. all complete as specified and directed.	1.00	MT		247447	247447	160000.00	160000	2,22,677.62	2,22,677.62	-28.15%	
293.00	Supplying, fabricating and erecting in position at all levels and locations bolted, clamped and/or welded GRATING (fabricated as per standards) made out of M.S. flats/M.S. flats with M.S. rounds in walkways, platforms, stair treads etc. including cutting to required size, shape, making holes, notches, openings of required size, nosing, straightening if required, making the edges smooth, removing the burrs, fabricating clamps, fixing, welding, preparation and submission of fabrication drawings and preparing the surfaces for painting, surface cleaning, wire brushing, removal of mill scale, dust, rust, oil or grease and applying one shop coat of Red Oxide Zinc Chromate Primer after fabrication etc. all complete as specified and directed.	1.00	MT		199605	199605	155000.00	155000	1,79,624.48	1,79,624.48	-13.71%	
294.00	BRICK MASONRY					0				-		
295.00	Providing and laying BRICK MASONRY WITH BRICKS OF CLASS 7.5 in cement mortar 1:6 (1 Cement : 6 Sand) in one or more brick thickness and in any shape (excluding circular/curved brick masonry) at all depths and height including the cost of materials, labour, scaffolding/ staging, sampling & testing, soaking of bricks, cutting and laying of bricks, providing recesses, making openings of any shape & size, finishing the joints flush below ground level and raking out the joints above ground level, sealing the gap between masonry and soffit of beam/slab, embedding the fittings & fixtures, curing, etc. all complete as per specifications.	60.00	M3		12000	720000	8000.00	480000	10,343.19	6,20,591.40	-22.65%	
296.00	Providing and laying HALF BRICK MASONRY with bricks of CLASS 7.5 in cement mortar 1:4 (1 Cement : 4 Sand) in any shape, including the cost of materials, labour, scaffolding/staging, sampling and testing, soaking of bricks, cutting and laying of bricks, providing openings of any shape & size, raking out the joints, supplying and placing 2 Nos. 6mm dia. M.S. Bars at every fourth course, sealing the gap between masonry and soffit of beam/slab, embedding the fittings and fixtures, curing etc. all complete as per specification.ALL MATERIALS INCLUDING CEMENT SUPPLIED BY CONTRACTOR.	20.00	M2		9000	180000	8000.00	160000	8,099.71	1,61,994.20	-1.23%	
297.00	External Walls plain cement plaster Average 18mm thick 1:4 (1 cement : 4 sand). Cement supplied by the Contractor at their cost.	60.00	M2		493	29580	4500.00	270000	443.04	26,582.40	915.71%	AHR
298.00	Painting of Walls External walls- Providing & applying 3 coats of waterproof decorative cement paint of approved make and approved shade, cleaning, including preparation of surfaces,base primer, curing etc. all complete	1.00	M2		300	300	250.00	250	205.20	205.20	21.83%	
299.00	Supply & Installation of Porta Cabin					0				-		
300.00	Supply and installation of Porta Cabin of size (4 mtr X 3 mtr) as per drawing attached in bid document including associated civil foundation works.	5.00	Nos.		500000	2500000	360000.00	1800000	2,80,416.11	14,02,080.55	28.38%	

Government eProcurement System Created By: MALEPPURATH GIRISH KUMAR Created Date/Time: 18-Jan-2022 09:32 AM Tender Title: Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis Tender ID: 2021_GAIL_98030_1											
Tender Inviting Authority: GAIL (India) Ltd.											
Name of Work:Construction of Steel Pipelines and Associated facilities for CGD ConnectivIties in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis											
Contract No: 040-LYONS-GAIL-021											
SCHEDULE OF WORK / ITEM(S)											
Sl.No	Description of Work / Item(s)	No. of Qty	Units	Estimated Rate	TECHNO GLOBAL SERVICES PVT LTD(GSTN-NA)	SHAKTI ENGINEERS(GSTN-NA)		COST ESTIMATE		Variance%	AHR
					Rate	Amount	Rate	Amount	Rate	Amount	
301.00	Supplying and filling of Boulders				0					-	
302.00	Supplying and filling of various sizes and type of boulders as per site requirement or as per direction of EIC. Rate involves supply, transportation, unloading at site, laying, etc. to complete the work in all respect.	100.00	M3		6000	600000	5000.00	500000	659.84	65,984.00	657.76% AHR
303.00	SECTION-D [CATHODIC PROTECTION WORKS]				0					-	
304.00	CATHODIC PROTECTION SYSTEM				0					-	
305.00	All works shall be carried out as per approved drawings and specifications. Work shall include design / residual engineering, preparation of CP schematic drawing, supply, installation, testing and commissioning of complete CP system, all related civil work, including providing foundations, supply of all materials as specified in SCC, instruments, consumables, touch-up epoxy paint as required, including supply of paint, tools, tackles, labor, transportation for satisfactory completion of work and as per directions of EIC. In addition to the items mentioned below the Contractor's scope shall include connecting the new pipelines to existing pipelines/cathode-points of TR units by means of jumpering/bonding.				0					-	
306.00	Complete Detailed Survey, Engineering, Supply, laying, installation, termination, testing & commissioning of Cathodic Protection system complete Civil Works and all material and labour as per specifications, drawings and instruction of EIC. Work to be completed in all respects.	5.50	KM		77984	428912	60000.00	330000	70,177.19	3,85,974.55	-14.50%
307.00	Supply, laying & testing of 600 / 1100V grade single core, stranded tinned copper conductor cables, XLPE insulated / PVC sheathed, armoured as per IS of following sizes. The work shall include excavation for cable trenching at min. 1.2 m below GL in all types of soil including rock, backfilling of cable in trenches, lugging, fenuelling, making termination as per drawings & specification. Supply of all tools, tackles, consumables, etc. for completion of work, in all respect and as per directions of EIC.				0					-	
308.00	35 mm2	50.00	Mtr.		900	45000	1000.00	50000	648.70	32,435.00	54.15% AHR
309.00	25 mm2	100.00	Mtr.		750	75000	800.00	80000	584.32	58,432.00	36.91%
310.00	10 mm2	200.00	Mtr.		600	120000	600.00	120000	467.26	93,452.00	28.41%
311.00	6 mm2	200.00	Mtr.		600	120000	350.00	70000	467.26	93,452.00	-25.10%
312.00	Making cable to pipe connections by thermit welding for following cables, including excavation for exposing pipe, removal of coating / wrapping, thermit welding recoating of the area of weld by epoxy filling, holiday testing, backfilling, supply of all tool, tackles, consumables thermit weld kits & labour for satisfactory completion of work.				0					-	
313.00	6 mm2 Cables	50.00	No.		1300	65000	250.00	12500	1,169.62	58,481.00	-78.63%
314.00	10 mm2 Cables	50.00	No.		1300	65000	350.00	17500	1,169.62	58,481.00	-70.08%
315.00	25 mm2 Cables	20.00	No.		2600	52000	450.00	9000	2,339.24	46,784.80	-80.76%
316.00	35 mm2 Cables	5.00	No.		3794	18970	650.00	3250	3,414.24	17,071.20	-80.96%
317.00	Supply & installation of test station as per enclosed drawings and technical specifications. Work shall include all related civil works including foundation, termination of cables inside the test stations along with lugs & ferules sealing of cable entry space with bitumen compound supply of all materials, consumables, tools, tackles, etc. for satisfactory completion of work and as per directions of EIC.	5.00	No.		50039	250195	24000.00	120000	45,029.88	2,25,149.40	-46.70%
318.00	Supply & installation of Zn anode at a depth of 1.5 - 2.0m on all type of soil including rock alongwith 10m tail cable of 25mm2 high conductivity, tinned, stranded copper conductor, 650 / 1100V grade, XLPE insulated, armoured, PVC sheathed for grounding electrical surges in the pipeline at HT crossings. The work includes excavation, laying of Zn anode of minimum 20 Kg weight, backfilling & all related civil work, complete in all respects. The work shall also include anode to tail cable connection, cable laying and termination inside the test station.	10.00	No.		37172	371720	20000.00	200000	33,451.13	3,34,511.30	-40.21%
319.00	Supply, installation, testing and commissioning of surge diverter inside the manual test stations at terminal locations, complete in all respects as per the specifications and directions of EIC.	10.00	No.		30000	300000	15000.00	150000	17,852.22	1,78,522.20	-15.98%
320.00	Supply & installation of Mg anodes after pre-packaged with chemical backfill as per enclosed drawing. The anodes will have to be buried at a depth of 1.5 to 2m on all types of soil including rock at approved location. The work shall include all earth work, laying of anodes & cables in position and termination of cable inside test stations with lugs, shunt & variable resistors, supply of all tools, tackles, consumables, labour transportation of materials, etc. required for satisfactory completion of work and directions of EIC.	10.00	No.		31520	315200	17000.00	170000	28,364.43	2,83,644.30	-40.07%
321.00	Supply, installation, testing and commissioning of spark-gap arrestors across insulating joints.	10.00	No.		42890	428900	27000.00	270000	38,597.45	3,85,974.50	-30.05%
322.00	Supply, installation, testing and commissioning of Electrolytic Polarization cell (as per approved design)	1.00	No.		61288	61288	70000.00	70000	55,153.05	55,153.05	26.92%
323.00	Note: (1) The quantities given above against individual items are indicative and shall not be considered to be binding. The quantities may be increased, decreased or deleted at site at the time of actual execution. Procurement shall be done as per actual site condition, approved construction drawings and as per instruction of EIC. The unit rate shall be operated to work out the final payment to the contractor; (2) In each area, quantities given against individual item may be utilised / used for other consumers in same area.				0					-	
324.00	CATHODIC PROTECTION SYSTEM (PCP)				0					-	

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Tender Inviting Authority: GAIL (India) Ltd.													
Name of Work:Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis													
Contract No: 040-LYONS-GAIL-021													
SCHEDULE OF WORK / ITEM(S)													
Sl.No	Description of Work / Item(s)	No. of Qty	Units	Estimated Rate	TECHNO GLOBAL SERVICES PVT LTD(GSTN-NA)		SHAKTI ENGINEERS(GSTN-NA)		COST ESTIMATE		Variance%	AHR	
					Rate	Amount	Rate	Amount	Rate	Amount			
325.00	Design, Engineering, Supply, Installation, Testing & Commissioning of Permanent Cathodic Protection (PCP) System (for 25 years) using LIDA single Electrodes or string (MMO) anodes with backfill, Junction Box, AJB, CJB, Cables, Monitoring System, any equipment and hardwares as per specification including Pre design surveys, Packing, Transportation to Project site, Post Commissioning Surveys of PCP system, system monitoring with other installation items required for completeness of the job. Design package including Site survey, formulae used, Design calculations, BOQ, Technical Specifications and data recording formats, Quality Assurance Control (QA/QC) methodology and submission of monitoring reports for owner evaluation, owner/consultant approved survey report, also includes all materials, equipments, consumables, start up/commissioning spares, etc., including transportation, storage of materials at site, As-built drawings, Documentation and O&M Manual.					0				-			
326.00	Design Engineering, Soil Resistivity Measurement, Soil Chemical analysis , Testing and Commissioning of Pipeline length	3.50	KM		6000	21000	8000.00	28000	4,904.46	17,165.61	63.12%	AHR	
327.00	Transformer Rectifier Unit					0				-			
328.00	Supply and Installation of GSM BASED TRU 10V/5A Transformer Rectifier Unit with operating range of 230 V AC and DC Output Rating - 10V/5A min, with GPS based current interrupter and full compliance to IEC specs exactly as per technical specification of tender document as per the detailed specifications, data sheet & approved drawings. It also including civil foundations, structural support etc. dual earthing of TR unit.	1.00	No.		534100	534100	300000.00	300000	4,80,636.59	4,80,636.59	-37.58%		
329.00	Anode Ground Bed Assemblies (Deep well)(to be decided on the basis of soil resistivity data)					0				-			
330.00	Supply and Installation of Deep well Anode Beds with dual anode tail cable (from top and bottom of the anode string) of suitable length upto Anode Junction Box) for permanent cathodic protection system by impressed current method to protect external surface of 3 layers PE coated pipeline against corrosion as per specifications for minimum service life of 30 years by using deep well anode bed construction of minimum 50 meter deep,with minimum 8" (200 mm) Dia MS pipe filled with Petroleum Coke Breeze of resistance ≤ 50 ,vent pipe, dead weight & a cable string of 10 mm2 size contains minimum 6 nos. mixed metal oxide coated titanium tubular anodes of size ST 1.6/50 cm, each MMO anode has current output of 2.5 Amp and other accessories like vent pipe, Calclined petroleum coke breeze, Rigid PVC pipe of 12" (300mm) with minimum 15 mtrs in length (ie. 15 meter inactive anode bed), Nylon Rope, etc.from the approved vendor as per specification.	1.00	No.		763000	763000	350000.00	350000	6,86,623.70	6,86,623.70	-49.03%		
331.00	Supply and Installation Anode Junction Box with all accessories (Like variable resistor, shunt, bus bar etc.)	2.00	No.		38150	76300	17000.00	34000	34,331.19	68,662.38	-50.48%		
332.00	Supply and Installation Cathode Junction Box with all accessories (Like shunt, bus bar etc.)	2.00	No.		30520	61040	16000.00	32000	27,464.95	54,929.90	-41.74%		
333.00	Supply and Installation Reference Electrode Junction Box/test station with all accessories	2.00	Nos.		29757	59514	30000.00	60000	26,778.32	53,556.64	12.03%		
334.00	Supply and Installation Permanent Reference Cell with Special Backfill in Cotton bag	5.00	Nos.		29757	148785	30000.00	150000	26,778.32	1,33,891.60	12.03%		
335.00	Supply & Installation of cables – Annealed high conductivity, tinned, stranded copper conductor, XLPE insulated, 650/1100 V grade, PVC,FRLS sheathed or as per specification and Miscellaneous such as termination, tagging, excavating the trench for cable laying, backfilling, etc., including the cost of all labour, materials, tools and tackles.					0				-			
336.00	1C x 6 sqmm armoured - Potential Measurement & ref. cell cable (RE/PE to REJB & REJB to CJB)	50.00	Mtrs		534	26700	275.00	13750	480.64	24,032.00	-42.78%		
337.00	10c x 2.5 sq mm measurement cable (from CJB to TRU)	50.00	Mtrs		1068	53400	490.00	24500	961.27	48,063.50	-49.03%		
338.00	1C x 35 sqmm armoured (anode & cathode header cable)	50.00	Mtrs		725	36250	550.00	27500	652.29	32,614.50	-15.68%		
339.00	3C x 10 sqmm armoured conductor (AC incomer power supply cable from Main DB to TR unit - PVC/PVC, armoured)	10.00	Mtrs		534	5340	600.00	6000	480.64	4,806.40	24.83%		
340.00	Supply and Installation of pipe to cable connection by Pin Brazing Encapsulation method	5.00	Nos.		5341	26705	4000.00	20000	4,806.37	24,031.85	-16.78%		
341.00	Polarisation Coupons	5.00	Nos.		3815	19075	3500.00	17500	3,433.12	17,165.60	1.95%		
342.00	Monitoring the Installed (PCP) System for three months after handing over the system. This includes monthly monitoring for PSP reading and weekly monitoring of TR unit for reading of TR parameters.	5.00	LS		45780	228900	50000.00	250000	41,197.42	2,05,987.10	21.37%		
343.00	Interference and Mitigation Survey (Solid State decoupling device, isolating Spark gap, zinc grounding cell and Test station at HT line locations have already been installed in the existing TCP system of the pipeline). However, if any other mitigation measures required then same will be in scope of PCP contractor.	5.00	Nos.		38150	190750	25000.00	125000	34,331.19	1,71,655.95	-27.18%		
344.00	Testing and commissioning of PCP system	5.00	Lot		76300	381500	60000.00	300000	68,662.37	3,43,311.85	-12.62%		
345.00	CIP/L Survey	10.00	km		18871	188710	15000.00	150000	16,982.41	1,69,824.10	-11.67%		
346.00	DCVG Survey	10.00	km		20588	205880	20000.00	200000	18,526.62	1,85,266.20	7.95%		
347.00	Note: (1) The quantities given above against individual items are indicative and shall not be considered to be binding. The quantities may be increased, decreased or deleted at site at the time of actual execution. Procurement shall be done as per actual site condition, approved construction drawings and as per instruction of EIC. The unit rate shall be operated to work out the final payment to the contractor; (2) In each area, quantities given against individual item may be utilised /used for other consumers in same area.					0				-			
348.00	SECTION-E [ELECTRICAL WORKS]					0				-			
349.00	Supply, installation, testing, commissioning of Street Lighting Fixture suitable for 250W HPMV or Equivalent LED Lamps on Lighting Poles (4mtr Height) with aluminium paint complete with mounting bracket, flameproof control gear box, internal cable from fitting to junction box, flameproof fittings etc. including civil foundation with pipe inserts for cables and connecting work, with all material and labour as per specifications, drawings and instruction of EIC. Work to be completed in all respects.	10.00	Nos.		38992	389920	25000.00	250000	35,088.59	3,50,885.90	-28.75%		
350.00	Supply, installation, testing, commissioning of Indoor Lighting Fixtures suitable for 26/36W LED Lamps for including all fixing arrangements and all material and labour as per specifications, drawings and instruction of EIC. Work to be completed in all respects.	1.00	Nos.		9600	9600	12000.00	12000	8,639.69	8,639.69	38.89%		

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SCHEDULE OF WORK / ITEM(S)												
Sl.No	Description of Work / Item(s)	No.of Qty	Units	Estimated Rate	TECHNO GLOBAL SERVICES PVT LTD(GSTN-NA)		SHAKTI ENGINEERS(GSTN-NA)		COST ESTIMATE		Variance%	AHR
					Rate	Amount	Rate	Amount	Rate	Amount		
351.00	Supply, installation, testing, commissioning of Exhaust fans (safe area) for including all fixing arrangements and all material and labour as per specifications, drawings and instruction of EIC. Work to be completed in all respects.	1.00	Nos.		10200	10200	10000.00	10000	9,179.67	9,179.67		
352.00	Supply, installation, testing, commissioning of Exhaust fans (Corrosion Proof Type) for including all fixing arrangements and all material and labour as per specifications, drawings and instruction of EIC. Work to be completed in all respects.	1.00	Nos.		15001	15001	25000.00	25000	13,499.51	13,499.51	8.94%	
353.00	Floor mounted MEDB consisting of busbar chamber, cable alley, Incomer - 1 no. 200 Amp FP MCCB, Auto healthy phase selector & Outgoing - 2 nos. 100 Amp FP MCB, 9 nos. 63 Amp FP MCB, 3 nos. 32 Amp FP MCB(as per technical specification, data sheet & SLD enclosed with this tender), complete with ammeter, voltmeter, energy meter, voltage selector switch, indicating Lamps etc.	1.00	Nos.		30002	30002	22000.00	22000	26,998.73	26,998.73	85.19%	AHR
354.00	Recess/Surface mounted Indoor Lighting Panel(ILP) Consisting of 40 Amp FP MCB+ELCB as incomer and 12 nos. 10A DP MCBs as out goings.	1.00	Nos.		19604	19604	35000.00	35000	17,641.32	17,641.32	-18.51%	
355.00	Recess/Surface mounted Power Panel(PP) Consisting of 63 Amp FP MCB as incomer and 9 nos. 20A DP MCBs as out goings.	3.00	Nos.		2400	7200	35000.00	105000	2,159.92	6,479.76	98.40%	AHR
356.00	Recess/Surface mounted Outdoor Lighting Panel OLP (For External Lighting) Consisting of 40 Amp FP MCB+ELCB as incomer, Contactor, timer, A/M switch, PB, indication Lamp etc Outgoing Through Timer: 6 Nos. 16 Amp DP MCB	1.00	Nos.		132834	132834	25000.00	25000	1,19,537.51	1,19,537.51	1520.43%	AHR
357.00	Supply, installation, testing, commissioning of Flameproof Flood Lighting Fixtures suitable for 250/400W HPMV or Equivalent LED Lamps for including all fixing arrangements on top of terrace of container and all material and labour as per specifications, drawings and instruction of EIC. Work to be completed in all respects.	1.00	Nos.		3600	3600	15000.00	15000	3,239.88	3,239.88	-79.09%	
358.00	Supply, installation, testing, commissioning of Modular Switch Board for including all fixing arrangements and all material and labour as per specifications, drawings and instruction of EIC. Work to be completed in all respects.	1.00	Nos.		2616	2616	18000.00	18000	2,354.14	2,354.14	362.98%	AHR
359.00	Supply, installation, testing, commissioning of wall mounted 24V DCDB for including all fixing arrangements and all material and labour as per specifications, drawings and instruction of EIC. Work to be completed in all respects.	1.00	Nos.		45780	45780	20000.00	20000	41,197.42	41,197.42	664.61%	AHR
360.00	Supply, installation, testing, commissioning of 5/15A Switch Socket for including all fixing arrangements and all material and labour as per specifications, drawings and instruction of EIC. Work to be completed in all respects.	1.00	Nos.		3600	3600	25000.00	25000	3,239.88	3,239.88	-51.45%	
361.00	Design, manufacture, shop testing, inspection, packing, forwarding, delivery, installation, testing and commissioning at site of UPS systems as per specification, direction of Engineer-in-charge and following rating: (a) 5 kVA, 230V Single Phase, 50 HZ, parallel redundant industrial type, UPS system suitable for input power supply voltage of 415 V, TPN,+/-10% output 230 V +/-1%, AC with solid state voltage stabilizer for bypass supply, ACDB/DCDB and 12 hrs. Battery(Ni-Cd) back-up (b) All interconnecting cables(FRLS) among UPS, Rectifier, battery stand, ACDB/DCDB etc.	1.00	Nos.		2560000	2560000	60000.00	60000	49,54,500.00	49,54,500.00	671.63%	AHR
362.00	Design, manufacture, shop testing, inspection, packing, forwarding, delivery, installation, testing and commissioning at site of UPS systems as per specification, direction of Engineer-in-charge and following rating: (a) 2 kVA, 230V Single Phase, 50 HZ, parallel redundant industrial type, UPS system suitable for input power supply voltage of 415 V, TPN,+/-10% output 230 V +/-1%, AC with solid state voltage stabilizer for bypass supply, ACDB/DCDB and 12 hrs. Battery(Ni-Cd) back-up (b) All interconnecting cables(FRLS) among UPS, Rectifier, battery stand, ACDB/DCDB etc.	1.00	Nos.		2090000	2090000	65000.00	65000	27,52,500.00	27,52,500.00	-98.79%	
363.00	Design, manufacture, shop testing, inspection, packing, forwarding, delivery, installation, testing and commissioning at site of UPS systems as per specification, direction of Engineer-in-charge and following rating: (a) 1 kVA, 230V Single Phase, 50 HZ, parallel redundant industrial type, UPS system suitable for input power supply voltage of 415 V, TPN,+/-10% output 230 V +/-1%, AC with solid state voltage stabilizer for bypass supply, ACDB/DCDB and 12 hrs. Battery(Ni-Cd) back-up (b) All interconnecting cables(FRLS) among UPS, Rectifier, battery stand, ACDB/DCDB etc.	1.00	Nos.		1585000	1585000	30000.00	30000	16,51,500.00	16,51,500.00	-97.64%	
364.00	Supply, installation, testing & commissioning of the complete earthing system, earth electrodes/pit, earth main ring, earthing of metering skid, electrical equipments, instrument panels, field instruments, process equipments & pipes / flanges including all associated civil work with all material & labour as per specification & drawings approved by the company. Each earthing system shall include the following.					0				-	-98.18%	
365.00	65mm dia 3 Mtr. Long GI PIPE Electrode with 6mm thick chequered plate cover, display board etc	16.00	Nos.		20587	329392	1000.00	16000	18,526.62	2,96,425.92	-94.60%	
366.00	600x600x3mm copper plate Electrode with 6 mm thick chequered plate cover, display board etc	16.00	Nos.		24018	384288	3000.00	48000	21,614.07	3,45,825.12	-86.12%	
367.00	GI Strip (50X6) mm	50.00	Mtrs.		454	22700	200.00	10000	408.73	20,436.50	-51.07%	
368.00	GI Strip (25X6) mm	400.00	Mtrs.		324	129600	350.00	140000	291.67	1,16,668.00	20.00%	
369.00	1C 25 Sq.mm PVC insulated Cu Conductor	10.00	Mtrs.		543	5430	600.00	6000	488.72	4,887.20	22.77%	
370.00	10 SWG GI wire	40.00	Mtrs.		194	7760	250.00	10000	174.61	6,984.40	43.18%	
371.00	GI Wire, Copper wire, wire rope and all balance earthing material including copper strip (50 mmX 2 mm thick) jumper for flanges etc.as per the specification.	1.00	Lot		25734	25734	15000.00	15000	23,158.28	23,158.28	-35.23%	
372.00	Supply, laying, installation, termination, testing, commissioning of 1100 Volt PVC insulated, PVC sheathed and armoured / unarmoured cables in trenches, excavated underground / trays, pulling through pipes and its proper sealing including underground trench and supply of hume pipes for road crossing, etc. as required as per specifications and drawings approved by the company.					0				-		
373.00	4C X 6 Sqmm Cu conductor XLPE Insulated Armoured Power Cable of 1100V Grade	200.00	Mtrs.		715	143000	450.00	90000	642.85	1,28,570.00	-30.00%	
374.00	3C X 2.5 Sqmm Cu conductor XLPE Insulated Armoured Power Cable of 1100V Grade	100.00	Mtrs.		520	52000	275.00	27500	467.26	46,726.00	-41.15%	
375.00	SECTION-F [INSTRUMENTATION WORKS]					0				-		
376.00	Supply, Calibration and Installation of instrumentation items listed below: (For details, refer instrumentation specifications)					0				-		

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Sl.No	Description of Work / Item(s)	No. of Qty	Units	Estimated Rate	TECHNO GLOBAL SERVICES PVT LTD(GSTN-NA)		SHAKTI ENGINEERS(GSTN-NA)		COST ESTIMATE		Variance%	AHR	
					Rate	Amount	Rate	Amount	Rate	Amount			
377.00	Pressure Gauge of different Range and rating as per site requirement Supply, testing, installation, erection and commissioning. Also supply of erection material like, connector SS316 tube, SS316 fittings, manifold, mounting stand and all other required material. Bourdon type with 2-way manifold, direct mount, 150mm dial, wetted part SS316, IP 65 rated, blow out protection and shatter proof heavy duty glass. (Refer the Data Sheet attached in Technical Volume)	10.00	Nos		25734	257340	15000.00	150000	23,158.28	2,31,582.80	-35.23%		
378.00	Pressure Transmitter of different Range and rating as per site requirement Supply, testing, installation, erection and commissioning. Also supply of erection material like connector, SS316 tube, SS fittings, manifold, mounting stand and all other required material. Smart HART, Ex'cr, IP-65, 24 VDC 2-wire loop powered. (Refer the Data Sheet attached in Technical Volume)	1.00	Nos		80000	80000	75000.00	75000	24,522.28	24,522.28	205.84%	AHR	
379.00	Temperature Gauge - skin type, direct mount as per site requirement Supply, testing, installation, erection and commissioning. Also supply of erection material like SS armored capillary, mounting stand and all other required material. Skin type, direct mount, 150mm dial, wetted part SS316, IP 65 rated and shatter proof heavy duty glass. (Refer the Data Sheet attached in Technical Volume)	10.00	Nos		19495	194950	75000.00	750000	17,544.30	1,75,443.00	327.49%	AHR	
380.00	Pressure Switch of different range Supply of all consumable material, testing, installation, erection and commissioning.	1.00	Nos		25000	25000	55000.00	55000	8,099.71	8,099.71	579.04%	AHR	
381.00	Valve Junction Bob - Gas Over Oil Actuated Valve (GOOV) of different size and rating as per site requirement Installation of valve junction box and their accessories inclusive of supply of necessary cable glands,connector, tubing terminals and complete with cabling, glanding, termination and earthing followed by testing and commissioning of complete gas over oil actuated valve.	8.00	Nos		54200	433600	15000.00	120000	48,774.80	3,90,198.40	-69.25%		
382.00	Gas Detection System (GDS) Supply, configuration, testing, installation, erection and commissioning of gas detection system including point gas detectors,control unit and junction boxes. Gas detector control unit shall be installed inside the local control panel. Supply, Laying of cable inside the cable trench, cable tray for hardwired signals and power cables from gas sensors to gas detectors control unit including glanding, termination, ferruling, dressing etc. at both ends. Supply of cable trays, installation and erection of cable trays and, supply of erection materials, cable ferrules, cable lugs, cable tie.					0				-			
383.00	IR type, Flame proof, IP-65, housing material SS316 without display, range 0-100% LEL point hydrocarbon gas detector.	8.00	Nos		250000	2000000	125000.00	1000000	21,053.16	1,68,425.28	493.74%	AHR	
384.00	Junction box	5.00	Nos		49910	249550	20000.00	100000	44,912.82	2,24,564.10	-55.47%		
385.00	Cables	100.00	Mtr		623	62300	600.00	60000	560.91	56,091.00	6.97%		
386.00	Other accessories such erection Material, mounting pole etc.	5.00	LS		6310	31550	25000.00	125000	5,678.52	28,392.60	340.26%	AHR	
387.00	Gas detection system cabinet	5.00	Nos		400000	2000000	115000.00	575000	85,200.19	4,26,000.95	34.98%		
388.00	Cables, Cables Trays and Junction boxes Supply, laying, installation, erection of signals cable from pressure transmitters, temperature transmitter to junction boxes, junction boxes to local control panel (LCP) and LCP panel to RTU including glanding, termination, ferruling, dressing etc. at both ends. Laying of cable from remote operated valve junction box to local control panel (LCP) and LCP panel to RTU including glanding, termination, ferruling, dressing etc. at both ends. Supply of cable trays, cables glands, junction boxes, erection materials, cable ferrules, cable lugs, cable tie. Installation and erection of cable trays and junction boxes Preparation of cable trench for burying cable, excavation, restoration of trench and compacting. Supply and laying of bricks and sand, pipes at all the crossings etc.					0				-			
389.00	1P X 1.5 Sq. mm Over all Screened	150.00	Mtr		514	77100	700.00	105000	462.39	69,358.50	51.39%	AHR	
390.00	1Q X 1.5 Sq. mm Over all Screened	150.00	Mtr		600	90000	600.00	90000	539.45	80,917.50	11.22%		
391.00	12P X 0.5 Sq. mm Individual Screen & Over all Screened	300.00	Mtr		780	234000	800.00	240000	701.38	2,10,414.00	14.06%		
392.00	10P X 0.5 Sq. mm Over all Screened	300.00	Mtr		1093	327900	800.00	240000	983.98	2,95,194.00	-18.70%		
393.00	3C X 2.5 Sq. mm Power cable	400.00	Mtr		875	350000	600.00	240000	787.62	3,15,048.00	-23.82%		
394.00	Serial communication cable, Modbus RS - 485, PVC Sheathed, 4 pair	150.00	Mtr		780	117000	600.00	90000	702.36	1,05,354.00	-14.57%		
395.00	Junction Box	20.00	Nos		37940	758800	15000.00	300000	34,142.36	6,82,847.20	-56.07%		
396.00	Cable Trays (60 mm wide x 30 mm height)	150.00	Mtr		491	73650	700.00	105000	441.40	66,210.00	58.59%	AHR	
397.00	Cable Trays (100 mm wide x 30 mm height)	200.00	Mtr		600	120000	800.00	160000	539.49	1,07,898.00	48.29%		
398.00	Cable Trays (300 mm wide x 30 mm height)	200.00	Mtr		709	141800	1200.00	240000	637.58	1,27,516.00	88.21%	AHR	
399.00	Metering skid installation, Testing & Commissioning assistance (For instrumentation part) Installation of telemetry interface panel (TIC) , metering panel(flow computer panel) either in field or in control room, Laying, installation, erection of signals cable from pressure transmitters, temperature transmitter to junction boxes, junction boxes to local control panel (LCP) and LCP panel to RTU including glanding, termination, ferruling, dressing etc. at both ends. Laying of cable from remote operated valve junction box to local control panel (LCP) and LCP panel to RTU including glanding, termination, ferruling, dressing etc. at both ends. Supply of consumables used in cables glanding & junction boxes, erection materials, cable ferrules, cable lugs, cable tie. Preparation of cable trench, excavation, restoration of trench etc. laying of bricks and sand, pipes at all the crossings of cable / tray etc. Providing the resources/manpower for assistance to OEM of metering skid during commissioning of skid.	10.00	Nos		90980	909800	225000.00	2250000	81,873.39	8,18,733.90	174.81%	AHR	
400.00	PRS skid Testing & Commissioning (For instrumentation part) Testing & Commissioning of JB's, cabling, glanding, termination and earthing cables within the skid.	2.00	Nos		81750	163500	175000.00	350000	73,566.83	1,47,133.66	137.88%	AHR	
401.00	SECTION-G [TELECOM WORKS]					0				-			

Government eProcurement System Created By: MALEPPURATH GIRISH KUMAR Created Date/Time: 18-Jan-2022 09:32 AM Tender Title: Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis Tender ID: 2021_GAIL_98030_1													
Tender Inviting Authority: GAIL (India) Ltd.													
Name of Work:Construction of Steel Pipelines and Associated facilities for CGD Connectivities in Northern region Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Rajasthan, Uttarakhand and Delhi NCR on ARC Basis													
Contract No: 040-LYONS-GAIL-021													
SCHEDULE OF WORK / ITEM(S)													
Sl.No	Description of Work / Item(s)	No. of Qty	Units	Estimated Rate	TECHNO GLOBAL SERVICES PVT LTD(GSTN-NA)		SHAKTI ENGINEERS(GSTN-NA)		COST ESTIMATE		Variance%	AHR	
					Rate	Amount	Rate	Amount	Rate	Amount			
402.00	System design, inspection & factory testing, FAT, SAT, training, installation, commissioning, Trial run, pre-factory tests, packing, forwarding and supply of all goods including commissioning spares & documentation, pre-commissioning activity for telecom					0				-			
403.00	Supply of 24 Fibre Composite armoured Optical Fibre Cable drum (6 Fibre G-655 & 18 fibre G-652).	5500.00	Mtr		195	1072500	120.00	660000	174.61	9,60,355.00	-31.28%		
404.00	Supply of jointing closure 24 Fiber, 2 way including all accessories (3M, Siemens, Raychem make only)	14.00	Nos		25734	360276	3500.00	49000	23,158.28	3,24,215.92	-84.89%		
405.00	Supply of 40mm OD permanently lubricated HDPE telecom duct as per technical specifications including manufacturing, factory testing, inspection, packaging, forwarding, transportation, insurance, receipt and storage at site.	5500.00	Mtr		151	830500	95.00	522500	135.59	7,45,745.00			
406.00	Telecommunication Site Work					0				-	-29.94%		
407.00	Laying of HDPE Telecom Duct: Laying of 40mm HDPE ducts in same pipeline trench direct buried or cased crossing through CS / HDPE conduit in all type of soil & terrain, excavated as required, padding, backfilling, etc. including supply of HDPE Duct accessories required including plastic couplers, end plugs, cable sealing plugs, end caps, etc. suitable & sufficient for above supplied ducts, cleaning and sealing of ducts at the end laid drum lengths, preparation and supply of cable blowing pit at each Km jointing of HDPE conduit, testing OD HDPE Duct and accessories after laying preparation of report and final drawing and documents as per specification, joint location marking, erection accessories, as-built, etc.	5500.00	Mtr		71	390500	75.00	412500	63.41	3,48,755.00			
408.00	Blowing of Optical Fibre Cable inside HDPE Duct: All activities pertaining to Blowing of Optical Fibre Cable in same pipeline trench directly (after testing drum at site), through CS / HDPE conduits along the pipeline also at crossing cable, sealing using all materials required, including laying of warning mats, etc. as per direction of EIC	5500.00	Mtr		77	423500	75.00	412500	69.26	3,80,930.00	18.28%		
409.00	Laying of OFC cable in same pipeline trench	40.00	Mtr		120	4800	100.00	4000	108.00	4,320.00	8.29%		
410.00	Supply and laying of GI Pipe (4") at crossings for protection of OFC / HDPE duct	40.00	Mtr		709	28360	1200.00	48000	637.58	25,503.20	-7.41%		
411.00	Splicing, Jointing of Optical Fiber Cable (Including Supply and Installation of jointing pits including sand, etc. & joint markers)	14.00	Nos		25734	360276	15000.00	210000	23,158.28	3,24,215.92	88.21%	AHR	
412.00	Supply of FTC with pig tails other accessories for termination of OFC - 24 Fibre in the Telecom Room	14.00	Set		25995	363930	60000.00	840000	23,392.40	3,27,493.60	-35.23%		
413.00	Installation of FTC & Wire mesh, termination of OFC on FTC / DDF inside telecom room, splicing with steel fibre, fibre test, OTDR test, power testing of laid OFC, identification of fault, rectification, earthing, final testing and commissioning, preparation of reports, etc. work complete in all respect with all necessary accessories for all location till final Handing Over and Taking Over by Owner of laid OFC.	14.00	Set		33025	462350	35000.00	490000	29,719.46	4,16,072.44	156.49%	AHR	
414.00	Supply, laying and termination of five pair armoured telephone cable 0.5 mm	10.00	Mtr		28	280	600.00	6000	24.52	245.20	17.77%		
415.00	Supply, configuration, installation and commissioning of CCTV DVR 4 channel video & audio, 1 SATA interface, installed in terminal control room complete with power supply unit for cameras, 1TB HDD and accessories inclusive of power/ Ethernet cabling, installation, testing and commissioning.	1.00	Nos		200000	200000	50000.00	50000	80,997.07	80,997.07	2346.98%	AHR	
416.00	Supply and installation of 2.0 MP 1080P, 20M IR, 25 FPS, fixed bullet cameras for outdoor (outside CCR building) installation, IP-65, complete with wiring and accessories.	1.00	Nos		90000	90000	25000.00	25000	13,498.77	13,498.77	-38.27%		
417.00	Supply of coaxial cable with power for CCTVs, PVC insulated, SWA	5.00	Mtr		420	2100	3000.00	15000	377.99	1,889.95	85.20%	AHR	
	Grant Total without GST					105146144.80		8,04,67,550.00		8,91,19,135.85	693.67%	AHR	
	GST					GST@0.18%	189263.0606	GST@18%		GST@18%	1,60,41,444.45		
	Grant Total with GST						105335407.86		9,49,51,709.00		10,51,60,580.31	-9.71%	
Lowest Amount Quoted BY: SHAKTI ENGINEERS(94951709.00)													
Total Item Nos.										249			
Total AHR Items										70			
Total Value of AHR items excluding GST										2,35,20,800.00			
Recommended Contract Value excluding GST										8,04,67,550.00			
AHR value as percentage of Contract Value										29.23%			

M.Girish Kumar (GM-C&P)
Lyons Engineering Pvt. LTd.

Signature Not Verified

Digitally signed by Maleppurath Girish Kumar
 Date: 2022.03.09 17:25:16 IST
 Location: eProcurement System for Central PSUs