

**SOR for rate contract for two years for MRS fabrication and internal piping works for Industrial commercial connections in East Dodavari (EG) and West Godavari (WG) districts.**

ITEM NO.	ITEM DESCRIPTION	Unit	QTY EG	QTY WG	Unit Rate (Rs.) - Inclusive of Taxes except GST	Amount EG	Amount WG	Total Price
1	<b>MDPE</b>		1	2	3	4=1X3	5=2X3	6=4+5
	<b>MDPE Pipeline laying rates for connections in all type of surface by any method</b>							
	Receiving, handling, loading, transportation and unloading of owner supplied MDPE pipes & fittings, warning mat and other free issue items from GGPL's designated stock yards to Contractor's own stock-yards/ work-sites. Proper storing, stacking, identification, providing security, and insurance cover for the materials. Liaisoning with Landowning agencies / statutory authorities, preparation of detailed route plan, making trial pits to determine the underground utilities/ services etc., obtaining permission from Land owning agencies, restoration of the abandoned trial pits (excavation to depth 1.5 m or more as satisfaction to EIC ) to original condition. Barricading the work area as per the procedures & drawings provided in the tender and as per the directions of EIC / site-in charge. Trenching to the required depth in all type of surface, uncoiling / stringing of pipes, damping, jointing of the pipe ends/ fittings/ valves by qualified personnel, using approved electro fusion techniques as per specification. Restoration of extra excavated portion along the TF point is inclusive in connection rates irrespective of the size of pit excavated at TF point and shall not be charged separately.							
	In case of SOR no.1.1, rates are inclusive of liaison with statutory bodies, other utility agencies and settlement of 3rd party claims, excavation, laying, taking electro fusion joints, flushing, testing, commissioning of gas supply, complete backfilling and restoration (separately payable as per SOR no. 3.1 and site conditions) of the excavated pits to original condition.							
	Lowering the MDPE pipe line in trench, padding around pipeline with suitable approved soil, laying of PE warning mat over the pipeline along the complete route, and backfilling with available excavated material, if suitable, after screening or supply of suitable sand/ soil as per directions of EIC/ Site-In charge. Compaction with jumping jack compactor and water at subsequent layers of 150mm, placement of all tiles/ slabs/ curb stones etc. removed during excavation. Roads, pavements, footpaths etc. shall be made motorable wherever pipeline is laid. Cleaning the area of all unserviceable materials, debris, excess earth near renches to the designated disposal area, as per specifications, instructions of land owners/ EIC and to the complete satisfaction of local authorities.							

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	The rates of SOR no. 1.1 also includes supply & installation of GI Sleeves, 2.5"/3" NB, 1' length GI Sleeve for 20/32/63 mm transition fittings used for commercial and industrial installations in addition to excavation, breaking through any obstructions, insertion of pipe, sealing the annulus, firm fixing of the sleeves with concrete mix, preparation of pedestal & restoration of excavated pits with in the size of pedestal & the same pit with the laying of 20/32/63 mm as defined in technical specification and instruction of EIC.							
	For cases, where pipe laying length exceeds 15.00 mtrs, SOR No. 2.1 and 2.2 is applicable and payable as per methodology used for laying of pipeline, does not include liaison with statutory bodies. The liaison for laying of pipeline in cases where the length is more than 15.00 mtrs will be paid separately as per SOR No. 11.1.							
	Preparation, Certification and submission of (DPR) daily progress reports, graphs, As-built drawings, crossings details, utility graphs, deviation statements and all others necessary documentation. Restore all surrounding ground features to that as existing before and as directed by EIC, which would include replanting of any uprooted trees etc. Pneumatic testing and commissioning as per specification and approved procedures. Providing all tools and tackles, test ends, nitrogen, instruments, manpower and other related accessories and as per the instructions of the EIC. On completion of gas charging of returning of all unused material to GGPL stores. submission of all documents required for contract closure in numbers as mentioned in the contract. Any other activities not mentioned/ operation / safety/ statutory/ maintenance of the works shall also be covered under the Scope of work and has to be completed by the Contractor within specified schedule at no extra cost to GGPL. This SOR is applicable for cases, where the MDPE pipeline for a particular location is to be laid and in existing gas charged area.							
1.1	Laying rates of 20, 32 & 63 mm Dia MDPE pipeline - pipe length upto 15.00	Nos.	100	100				
	Note - 1. Supply & installation of GI Sleeve / Half round CoWGete sleeve shall be included laying of 20/32/63 mm dia (wherever required).							
2	<b>Pipe line laying in all type of Surface : (for existing and new areas)</b>							

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	Laying of pipeline after raking up normal /built up surface, Trenching to the required depth in all type of surface, including normal, metal, coWGete, bituminous, tiled, brick lined etc. after raking up of hard surface of any type . Roads, Pavement, Footpaths etc., uncoiling / stringing of pipes, damping, jointing of the pipe ends/ fittings/ valves by qualified personnel, using approved electro fusion techniques as per specification. Land shall be made motorable once the pipeline is laid. The other activities are as per SOR Item No. 1.1 and as detailed in specification and as per the instructions of the EIC / Site engineer of Owner. This SOR is applicable where pipeline to be laid is more than 15.00 mtrs and excludes liasioning.								
	2.1	20/32 mm Dia	MR	500	500				
	2.2	63 mm Dia	MR	500	500				
<b>3</b>	<b>Restoration of trenches</b>								
	3.1	Restoration of excavated pits to original surface conditions like Asphalted/Bituminous Road, Concrete Pavement, Agra / Kota Stones / Granites / Tiles (Chequered/Interlocking etc.), Dry Brick Pavement etc. as per the technical specifications attached in the tender after laying of pipeline in all type of surface as per SOR no 2.1 & 2.2, where restoration is in the scope of GGPL and as per the directions of EIC / Site In charge. Scope includes supply of the approved quality material, testing of materials by third party agencies as per technical specification / CPWD / IRC Standards, submission of the restoration reports, obtaining no objection certificates from the concern local authorities / land owners / third party inspection agencies designated by land owing agencies and Owner.	Cu.m	100	100				
<b>4</b>	<b>Installation of valve Chambers:</b>								
	All civil works including supply of materials, excavation of pit, piping supports including all PCC, RCC and Brick works for valve pits, pedestals with insert plates as required, sealing of pipe at pits, providing cover etc., finishing, clean up and restoration.								
	4.1	Brick Valve Chambers Size - 1.5m x 1m	Nos.	10	10				
	4.2	RCC Valve Chambers Size - 1.5m x 1m	Nos.	5	5				
<b>5</b>	<b>Fabrication &amp; Installation of Pipeline Markers:</b>								

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ITEM NO.	ITEM DESCRIPTION	Unit	QTY EG	QTY WG	Unit Rate (Rs.) - Inclusive of Taxes except GST	Amount EG	Amount WG	Total Price
	Supply of Markers, Fabrication, Installation of Route Markers / Pole Markers as per the <b>attached drawings</b> , along the route / along boundary wall, lamp posts including all associated civil works such as excavation and construction in all types of soils, construction of pedestals and grouting with coWGete, cleaning, supply and application of approved color and quality of primer and paint, stencil letter cutting of numbers, direction, chainage, etc. restoration of area to original condition and performing all works as per drawings, specification and instruction of Engineer-in-Charge.							
5.1	RCC Route Markers as per Drawing No.....	Nos.	50	50				
140.0	Pole markers with foundation as per Drawing No..... as instructions of EIC and specification.	Nos.	50	50				
150.0	Plate markers without foundation as per Drawing No.....	Nos.	100	100				
<b>6</b>	<b>Shifting of Field Regulating Stations, Meter regulating Skids, Pressure regulating skids, Wall</b>							
<b>A</b>	Loading,Transportation, of PRS/DRS / FRS/ MRS from GGPL's designated store / site to another site and all others necessary documentation. Also includes unloading of the regulating systems, skids on the platform / foundation, using cranes / hydra as required by the site conditions.							
6.1	Shifting of Metering Skids with flow range capacity upto and including 750 SCMH	LS	40	40				
6.2	Shifting of Metering Skids with flow range capacity above 750 SCMH	LS	40	40				
<b>B</b>	Loading,Transportation, of wall mounted MRS from GGPL's designated site to another site and all others necessary documentation. Also includes unloading of the systems, storage of system (wherever required), replacement of meter/regulator (wherever required), Re-installation of MRS at GGPL's designated site, as required by the site conditions.							
6.3	Shifting of Wall mounted MRS	LS	20	20				
<b>11</b>	<b>Liasoning with Land Owning Agencies for Permissions</b>							
	Submission of applications as per approved drawings provided by owner / owner's representative							
11.1	All pipe sizes	MR	500	500				
<b>12</b>	<b>Demolition of PCC work below plinth level</b>							
12.1	Demolishing plain cement concrete (PCC) work (taking all necessary safety precautions) for all depths below plinth level including supply of all tools & tackles, necessary scaffolding, propping, underpinning, etc. , disposal of unserviceable material outside the GGPL boundary limits kipping the GGPL indemnified of any liabilities from statutory/ local bodies, all complete work as specified and directed	Cu. M	10	10				
<b>13</b>	<b>Excavation for foundation works</b>							

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	Excavation as per plan, upto 3 meters and upto any lead in all conditions, backfilling using serviceable earth and disposal of surplus and unserviceable earth. Soil to be levelled and neatly dressed complete in all respect as per scope of work, technical specification and directions of EIC.							
	13.1 Upto 3.0 Mtrs	Cu. M	10	10				
<b>14</b>	<b>Foundation works</b>							
<b>a</b>	<b>Providing and Laying Plain Cement Concrete (1:2:4)</b>							
	14.1 Providing & laying, Fixing, Centering and Shuttering of plain cement concrete with nominal mix 1:2:4 by mass (1 cement: 2 coarse sand: 4 coarse aggregates) with 20 mm down size graded aggregates/ gravels as specified in specifications and satisfaction to the EIC.	Cu. M	10	10				
<b>b</b>	<b>Providing and Laying Plain Cement Concrete (1:4:8)</b>							
	14.2 Providing & laying, Fixing, Centering and Shuttering of plain cement concrete with nominal mix 1:4:8 by mass (1 cement: 4 coarse sand: 8 coarse stone/ aggregates/ gravels) with 20 mm down size graded etc as specified in specifications and satisfaction to the EIC.	Cu. M	10	10				
<b>c</b>	<b>Supply and Fixing of Deformed Steel Bars Reinforcement</b>							
	14.3 Supply and placing in position high strength deformed steel bars reinforcement (conforming to IS: 1786, Grade Fe 415) for RCC work including transporting, straightening, cleaning, de-coiling, cutting & binding to required shapes and length 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, fan hooks etc. for all heights and depths etc. complete the work as directed.	KG	200	200				
<b>d</b>	<b>Providing and Laying Reinforced Cement Concrete (M-25)</b>							
	14.4 Providing and laying REINFORCED CEMENT CONCRETE OF M-25 Grade (CoWGete shall be design / nominal mix) with 20mm & down size graded aggregates in NON SUSPENDED slabs / pavement slabs including pedestals, ramps etc. filling pockets with grouting, laying in alternate panels to required slopes, all necessary form work and finishing the top surface rough or smooth as required and directed, providing pockets/openings, recesses, chamfering etc. wherever required, vibrating, tamping, curing, and rendering smooth if required in any position, shape, level and thickness etc. all complete as specified, shown and directed. Rates to include all materials (other than steel), labour, shuttering and necessary works required to make work complete.	Cu. M	5	5				
	Note: The payments of Steel shall be paid as per SOR no. 14.3							
<b>MDPE TOTAL (X)</b>								

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<b>CS Fabrication and Erection section</b>								
<b>12</b>	<b>Supply &amp; Installation of CS Pipe &amp; Fittings for MRS erection, fabrication, modification &amp;</b>							
	Assessment of material requirement for installation at site, Order placement for purchasing of CS Pipes & fittings from anyone of approved vendors of GGPL, Scheduling, Planning of material & Forwarding inspection call, Dispatch clearance, handling, loading, transportation and unloading of these at respective contractor's store. Receiving, taking over, handling, loading, transportation and unloading of owner supplied above ground fittings like regulators, meter & Isolation Valve and other free issue items as defined in specification from Owner's designated stock yards to Contractor's own stores / work sites, proper storing, stacking, identification, providing security and insurance cover. Preparation and approval of sketches, schedules & execution procedures and all others necessary documentation. Finalising MRS location with optimum route in consent of customer from transition fitting till Meter Outlet. Making temporary but stable platforms/ scaffolding/ rope ladders and supply of all other safety devices.							
	The inlet and outlet port size of regulators supplying outlet pressure of 300/500 mbar & 2 bar may vary from 1" to 2" with either threaded or flange ends. The diaphragm meter includes type G-1.6, 2.5, 4, 6, 10, 16 & 25, RPD Meters includes type G-10,16, 25, 40 & 65, whereas Turbine meter includes type G-100 & 160. The inlet and outlet port size of all types of meter may vary from threaded to flange ends and sizes from 3/4" to 3". Supply and installation of STANDARD Y TYPE FLANGE END STRAINER between T.F. I.V. to Regulator Inlet. Strainer size may be 1", 2", 3" & 4" corresponding to installed TF size. The payment for supply and installation of Y type strainer is included in MRS fabrication.							

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	Installation of CS pipes & fittings, Regulators, Meters, Valves etc. including NPT threading, as specified, Drillings of holes through the walls Brick, RCC, Granite, Marble, Wood Cutting, Glass Cutting with proper heavy duty hammer drill machine, tools & tackles, using proper sealant/grout material and colors to match the original replacement of the damages during drilling, restoring the area to the original condition, Painting of entire length of pipe along with fittings after proper surface finish by one coat of approved primer paint and two coats of approved synthetic enamel paint. Restoring the wall surface to original conditions, Supply & fixing of approved clamps & dowel plugs with screws, supply and insertion of insulation material i.e. PVC, PTFE sheet between pipe/ meter support and pipe/ meter, grout material, suitable thread sealant i.e. Teflon Tape / lock tight, Joining of transition fig. to above ground service GI pipes, testing, purging and commission of the complete installation.							
	Erection, Fabrication, Welding & Installation of CS pipes & Fittings, Regulators, Meters, Valves etc. including NPT threading, Radiography, as specified, Drillings of holes through the walls Brick, RCC, Granite, Marble, Wood Cutting, Glass Cutting with proper heavy duty hammer drill machine, tools & tackles, using proper sealant/grout material and colors to match the original replacement of the damages during drilling, restoring the area to the original condition, Painting of entire length of pipe along with fittings after proper surface finish by one coat of approved primer paint and two coats of approved synthetic enamel paint. Restoring the wall surface to original conditions, Supply & fixing of approved MS angle clamps, Ceiling clamps & dowel plugs with screws, grout material, suitable thread sealant i.e. Teflon Tape / lock tight, Supply of different sizes 1" to 4", 150# spiral wound gasket, studs & bolts (various sizes with wire sealing arrangement wherever required), Joining of transition fig. to above ground CS pipes, testing, purging and commission of the complete installation. The rates includes installation of meters and shall not be charged separately.							
	<b>MRS Installation</b>							
12.1	Connection rates for installation of CS MRS with 1" pipe & fittings, pressure regulation of 300/500 mbar with Diaphragm meter installation G-1.6, 2.5 as per dwg with supply of MS Clamps/supports.	Nos.	10	10				
12.2	Connection rates for installation of CS MRS with 1-1/2" pipe & fittings, pressure regulation of 300/500 mbar with Diaphragm meter installation G-4, 6, 10, 16, 25 as per dwg with supply of MS Clamps/supports.	Nos.	10	10				

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12.3	Connection rates for installation of CS MRS with 2" pipe & fittings, pressure regulation of 300/500 mbar with Diaphragm meter installation G-4, 6, 10, 16, 25 as per dwg with supply of MS Clamps/supports.	Nos.	10	10				
12.4	Connection rates for installation of CS MRS with 1-1/2" pipe & fittings, pressure regulation of 2 bar with RPD meter installation G-10,16, 25 as per dwg with supply of MS Clamps/supports.	Nos.	10	10				
12.5	Connection rates for installation of CS MRS with 2" pipe & fittings, pressure regulation of 2 bar with RPD meter installation G- 40, 65 as per dwg with supply of MS Clamps/supports. The rates shall include supply, installation of SS tubing 1/2" with connectors, welding of socolets for installation of connectors.	Nos.	10	10				
<b>13</b>	<b>CS Common Headers for MRS installation - Supply, Erection, welding &amp; Installation of CS pipes &amp; fittings (all types) except Ball Valves as common headers along with branching for commercial connections.</b>							
	In addition to other activities under SOR item no. 12 and as detailed in specification and as per the instructions of the EIC / Site engineer of Owner. Erection, Fabrication, Welding & Installation of common headers of CS pipes & Fittings till isolation valves for fixing of numerous meters through a single header and includes connecting of common Regulators on headers, NPT threading, Radiography, as specified, Drillings of holes through the walls Brick, RCC, Granite, Marble, Wood Cutting, Glass Cutting with proper heavy duty hammer drill machine, tools & tackles, using proper sealant/grout material and colors to match the original replacement of the damages during drilling, restoring the area to the original condition, Painting of entire length of pipe along with fittings after proper surface finish by one coat of approved primer paint and two coats of approved synthetic enamel paint. Restoring the wall surface to original conditions, Supply & fixing of approved MS angle clamps, Ceiling clamps & dowel plugs with screws, supply and insertion of insulation material i.e. PVC, PTFE sheet between pipe/ meter support and pipe/ meter, grout material, suitable thread sealant i.e. Teflon Tape / lock tight, Supply of different sizes 1" to 4", 150# spiral wound gasket, studs & bolts (various sizes with wire sealing arrangement wherever required), Joining of transition ftg. to above ground CS pipes, testing, purging and commission of the complete installation. Supply and installation of STANDARD Y TYPE FLANGE END STRAINER between T.F. I.V. to Regulator Inlet. Strainer size may be 1" 2" 3" & 4" corresponding to installed TE size. The payment for supply							
	13.1 2" pipes & fittings	MR	100	100				
	13.2 4" pipes & fittings	MR	100	100				
<b>14</b>	<b>A Supply &amp; Installation of Pressure Gauges</b>							
	14.1 RANGE 0-1 BAR - 4"- DIAL SIZE	Nos.	10	10				
	14.2 RANGE 0-4 BAR - 4"- DIAL SIZE	Nos.	10	10				
	14.3 RANGE 0-6 BAR - 4"- DIAL SIZE	Nos.	10	10				



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<b>B</b>	<b>Supply &amp; Installation of FLANGE END BALL VALVES, MAOP- 4 BAR</b>							
14.4	4"	Nos.	10	10				
14.5	2"	Nos.	10	10				
14.6	1-1/2"	Nos.	10	10				
14.7	1"	Nos.	10	10				
<b>C</b>	<b>Supply &amp; Installation of THREADED END BALL VALVES, MAOP-4 BAR</b>							
14.8	1"	Nos.	10	10				
14.9	1/2"	Nos.	10	10				
<b>D</b>	<b>WELDING OF JOINTS - Butt Weld Joints</b>							
14.1	4"	Nos.	10	10				
14.1	3"	Nos.	10	10				
14.1	2"	Nos.	10	10				
14.1	1-1/2"	Nos.	10	10				
14.1	1"	Nos.	10	10				
14.2	1/2"	Nos.	10	10				
<b>E</b>	<b>Fillet Joints &amp; Supply of Socolet</b>							
14.2	1"	Nos.	10	10				
14.2	1/2"	Nos.	10	10				
<b>F</b>	<b>RADIOGRAPHY OF JOINTS</b>							
14.2	4"	Nos.	10	10				
14.2	3"	Nos.	10	10				
14.2	2"	Nos.	10	10				
14.2	1-1/2"	Nos.	10	10				
14.2	1"	Nos.	10	10				
14.2	1/2"	Nos.	10	10				
<b>G</b>	<b>SUPPLY/ INSTALLATION OF CLAMPS, SUPPORTS FOR ERECTION OF ALL SIZES OF PIPELINE</b>							
14.2	TYPE-1, SIDE WALL MOUNTED AS PER DRAWING	KG	200	200				
14.3	TYPE-2, GROUND BASED AS PER DRAWING	KG	100	100				
14.3	TYPE-3, CEILING MOUNTED AS PER DRAWING	KG	100	100				

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<b>15</b>	<b>Internal Piping - Supply, Erection &amp; welding of CS pipes &amp; fittings (all types) except Ball</b>							
	Assessment of material requirement for installation at site, Order placement for purchasing of CS Pipes & fittings from anyone of approved vendors of GGPL, Scheduling, Planning of material & Forwarding inspection call, Dispatch clearance, handling, loading, transportation and unloading of these at respective contractor's store. Receiving, taking over, handling, loading, transportation and unloading of contractor supplied material as defined in specification from Contractor's designated stock yards to GGPL's work sites, proper storing, stacking, identification, providing security and insurance cover. Preparation and approval of sketches, schedules & execution procedures and all others necessary documentation. Finalising Piping location with optimum route in consent of customer from Meter Outlet till Customer's Appliance. Making temporary but stable platforms/ scaffolding/ rope ladders and supply of all other safety devices.							
<b>A</b>	Supply, Erection, Welding, Radiography & Testing of CS Seamless A 106 Gr-B, Sch-40 Pipeline. It includes supply of all type of fittings (except ball valves), Supply Of Consumables Like Spiral Wound Gaskets (Winding ANSI 304 Graphite Centering Ring Cs), Stud Bolts (ASTM A 193 B 7, Hexagonal Nuts, ASTM A194 Gr 2H) and is inclusive in rates.							
15.1	4" NB	MR	10	10				
15.2	3" NB	MR	10	10				
15.3	2" NB	MR	10	10				
15.4	1-1/2" NB	MR	10	10				
15.5	1" NB	MR	10	10				
<b>B</b>	Supply, Erection, Welding, Radiography & Testing of CS ERW API 5L GR-B Pipeline. It includes supply of all type of fittings (except ball valves), Supply Of Consumables Like Spiral Wound Gaskets (Winding ANSI 304 Graphite Centering Ring Cs), Stud Bolts (ASTM A 193 B 7, Hexagonal Nuts, ASTM A194 Gr 2H) and is inclusive in rates.							
15.6	4" NB	MR	10	10				
15.7	3" NB	MR	10	10				
	<i>Note:</i> The payments of ball valve shall be paid as per SOR 14.4 to 14.9							
<b>16</b>	<b>Modifications &amp; Installation of Meters &amp; Regulators in existing MRS/Skids/FRS- DRS:</b>							

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	Assessment of material requirement for installation at site, Order placement for purchasing of CS Pipes & fittings from anyone of approved vendors of GGPL, Scheduling, Planning of material & Forwarding inspection call, Dispatch clearance, handling, loading, transportation and unloading of these at respective contractor's store. Receiving, taking over, handling, loading, transportation and unloading of owner supplied above ground fittings like regulators, meter & Isolation Valve and other free issue items as defined in specification from Owner's designated stock yards to Contractor's own stores / work sites, proper storing, stacking, identification, providing security and insurance cover. Preparation and approval of sketches for modification, schedules & execution procedures and all others necessary documentation. Making temporary but stable platforms/ scaffolding/ rope ladders and supply of all other safety devices.							
	Taking shutdown of existing MRS, dismantling meters/regulators, replacement/fixing of meters/regulators with associated inlet and outlet connections / fittings, supply of pipes & fittings (excluding flange end Ball Valve), pipe cutting, threading, welding, testing, Radiography of Joints & firmly fixing with approved meter clamps/brackets and other supports by proper grouting and necessary documentation. Restoring the area to the original condition as per the specifications and to complete satisfaction of consumer and EIC. The rates includes all as above along with testing of joints till re-commissioning.							
16.1	Diaphragm meter	Nos.	2	2				
16.2	RPD Meter	Nos.	2	2				
16.3	Turbine Meter	Nos.	2	2				
16.4	300 mbar regulator	Nos.	2	2				
16.5	500 mar regulator	Nos.	2	2				
16.6	2 bar regulator	Nos.	2	2				
<b>A</b>	<b>Butt Weld Joints</b>							
16.7	8"	Nos.	2	2				
16.8	6"	Nos.	2	2				
16.9	4"	Nos.	2	2				
16.10	3"	Nos.	2	2				
16.11	2"	Nos.	2	2				
16.12	1-1/2"	Nos.	2	2				
16.13	1"	Nos.	2	2				
<b>B</b>	<b>Supply &amp; Installation of CS Piping (Seamless A 106 Gr-B, Sch-40)- 150 #</b>							
16.14	8"	MR	5	5				
16.15	6"	MR	5	5				
16.16	4"	MR	5	5				

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16.17	3"		MR	5	5				
16.18	2"		MR	5	5				
16.19	1-1/2"		MR	5	5				
16.20	1"		MR	5	5				
<i>Note:</i>									
1	Modifications/ replacements (meter or regulator or both) in existing MRS/Skids/DRS using threaded fittings/ flanged end (same size or bigger) shall be payable through 16.1 TO 16.6.								
2	Modifications/ replacements (meter or regulator or both) in existing MRS/Skids/FRS-DRS using welding (same size or bigger upto 3.00 mtrs) shall be payable through 16 A								
3	Modifications/ replacements (meter or regulator or both) in existing MRS/Skids/FRS-DRS using welding (in case, erected length after modification is more than 3.00 mtrs) shall be payable through 16 B								
4	The payments of flange end ball valve shall be paid as per SOR no. 14.4 to 14.7								
<b>17</b>	<b>Conversion of Commercial Appliances:</b>								
17.1	Conversions of all types of commercial appliances to NG based appliances. Supply & changing of the nozzles /jets and associated controls for Non- domestic appliances (imported appliances included) with proper tools and tackles. Cleaning and performing minor maintenance, greasing etc. of the appliance. Testing and showing the performance to the customer, signing of joint meter records (JMR) and instructing the customer on use & safety norms, complete as per specifications & to satisfaction of owner / Engineer in Charge and includes supply of reinforced rubber hose with requisite pressure rating.		Nos.	80	80				
<i>Note:</i>		The payments of conversion shall be as per burners.							
<b>18</b>	<b>Demolition of PCC work below plinth level</b>								
18.1	Demolishing plain cement concrete (PCC) work (taking all necessary safety precautions) for all depths below plinth level including supply of all tools & tackles, necessary scaffolding, propping, underpinning, etc. , disposal of unserviceable material outside the GGPL boundary limits kipping the GGPL indemnified of any liabilities from statutory/ local bodies, all complete work as specified and directed		Cu. M	5	5				
<b>19</b>	<b>Excavation for foundation works</b>								
	Excavation as per plan, upto 3 meters and upto any lead in all conditions, backfilling using serviceable earth and disposal of surplus and unserviceable earth. Soil to be levelled and neatly dressed complete in all respect as per scope of work, technical specification and directions of EIC.								

SOR for rate contract for two years for MRS fabrication and internal piping works for Industrial commercial connections in East Dodavari (EG) and West Godavari (WG) districts.

ITEM NO.	ITEM DESCRIPTION		Unit	QTY EG	QTY WG	Unit Rate (Rs.) - Inclusive of Taxes except GST	Amount EG	Amount WG	Total Price
	19.1	Upto 3.0 Mtrs	Cu. M	5	5				
<b>20</b>	<b>Foundation works</b>								
<b>a</b>	<b>Providing and Laying Plain Cement Concrete (1:2:4)</b>								
	20.1	Providing & laying, Fixing, Centering and Shuttering of plain cement concrete with nominal mix 1:2:4 by mass (1 cement: 2 coarse sand: 4 coarse aggregates) with 20 mm down size graded aggregates/ gravels as specified in specifications and satisfaction to the EIC.	Cu. M	5	5				
<b>b</b>	<b>Providing and Laying Plain Cement Concrete (1:4:8)</b>								
	20.2	Providing & laying, Fixing, Centering and Shuttering of plain cement concrete with nominal mix 1:4:8 by mass (1 cement: 4 coarse sand: 8 coarse stone/ aggregates/ gravels) with 20 mm down size graded etc as specified in specifications and satisfaction to the EIC.	Cu. M	5	5				
<b>c</b>	<b>Supply and Fixing of Deformed Steel Bars Reinforcement</b>								
	20.3	Supply and placing in position high strength deformed steel bars reinforcement (conforming to IS: 1786, Grade Fe 415) for RCC work including transporting, straightening, cleaning, de-coiling, cutting & binding to required shapes and length 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, fan hooks etc. for all heights and depths etc. complete the work as directed.	KG	100	100				
<b>d</b>	<b>Providing and Laying Reinforced Cement Concrete (M-25)</b>								
	20.4	Providing and laying REINFORCED CEMENT CONCRETE OF M-25 Grade (Concrete shall be design / nominal mix) with 20mm & down size graded aggregates in NON SUSPENDED slabs / pavement slabs including pedestals, ramps etc. filling pockets with grouting, laying in alternate panels to required slopes, all necessary form work and finishing the top surface rough or smooth as required and directed, providing pockets/openings, recesses, chamfering etc. wherever required, vibrating, tamping, curing, and rendering smooth if required in any position, shape, level and thickness etc. all complete as specified, shown and directed. Rates to include all materials ( <b>other than steel</b> ), labour, shuttering and necessary works required to make work complete.	Cu. M	5	5				
	<i>Note:</i>	The payments of Steel shall be paid as per SOR no. 20.3							
						<b>CS Fabrication and Erection -TOTAL-(Y)</b>			
	<b>Supply and Installation of wired cages for MRS</b>								
<b>21</b>	<b>Supply &amp; Fabrication/Erection of Wired cages for MRS</b>								
	Assessment of material requirement for installation at site, Order placement for purchasing of MS								

SOR for rate contract for two years for MRS fabrication and internal piping works for Industrial commercial connections in East Dodavari (EG) and West Godavari (WG) districts.

ITEM NO.	ITEM DESCRIPTION	Unit	QTY EG	QTY WG	Unit Rate (Rs.) - Inclusive of Taxes except GST	Amount EG	Amount WG	Total Price
21.1	Supply (Angle 65 mm x 65 mm x 6 mm, Flat 50 mm x 6 mm & Wire Mesh 75 mm X 30 mm X 4 mm), fabrication, painting, transportation and installation of MRS cages for SKID by welding/bolting with structural steel elements for making covers for industrial/ commercial PNG meter-regulator systems as per detailed scope of work & Drawing.	Sq. M	5	5				
21.2	Supply (Angle 40 mm x 40 mm x 5 mm, Flat 25 mm x 4 mm & Wire Mesh 75 mm X 30 mm X 4 mm), fabrication, painting, transportation and installation of MRS cages for WALL MOUNTED MRS by welding/bolting with structural steel elements for making covers for industrial/ commercial PNG meter-regulator systems as per detailed scope of work & Drawing.	Sq. M	5	5				
<i>Civil Works</i>								
<b>22</b>	<b>Demolition of PCC work below plinth level</b>							
22.1	Demolishing plain cement concrete (PCC) work (taking all necessary safety precautions) for all depths below plinth level including supply of all tools & tackles, necessary scaffolding, propping, underpinning, etc. , disposal of unserviceable material outside the GGPL boundary limits kipping the GGPL indemnified of any liabilities from statutory/ local bodies, all complete work as specified and directed	Cu. M	5	5				
<b>23</b>	<b>Excavation for foundation works</b>							
	Excavation as per plan, upto 3 meters and upto any lead in all conditions, backfilling using serviceable earth and disposal of surplus and unserviceable earth. Soil to be levelled and neatly dressed complete in all respect as per scope of work, technical specification and directions of EIC.							
23.1	Upto 3.0 Mtrs	Cu. M	5	5				
<b>24</b>	<b>Foundation works</b>							
<b>a</b>	<b>Providing and Laying Plain Cement Concrete (1:2:4)</b>							
24.1	Providing & laying, Fixing, Centering and Shuttering of plain cement concrete with nominal mix 1:2:4 by mass (1 cement: 2 coarse sand: 4 coarse aggregates) with 20 mm down size graded aggregates/ gravels as specified in specifications and satisfaction to the EIC.	Cu. M	5	5				
<b>b</b>	<b>Providing and Laying Plain Cement Concrete (1:4:8)</b>							
24.2	Providing & laying, Fixing, Centering and Shuttering of plain cement concrete with nominal mix 1:4:8 by mass (1 cement: 4 coarse sand: 8 coarse stone/ aggregates/ gravels) with 20 mm down size graded etc as specified in specifications and satisfaction to the EIC.	Cu. M	5	5				
<b>c</b>	<b>Supply and Fixing of Deformed Steel Bars Reinforcement</b>							

**SOR for rate contract for two years for MRS fabrication and internal piping works for Industrial commercial connections in East Dodavari (EG) and West Godavari (WG) districts.**

ITEM NO.	ITEM DESCRIPTION	Unit	QTY EG	QTY WG	Unit Rate (Rs.) - Inclusive of Taxes except GST	Amount EG	Amount WG	Total Price
24.3	Supply and placing in position high strength deformed steel bars reinforcement (conforming to IS: 1786, Grade Fe 415) for RCC work including transporting, straightening, cleaning, de-coiling, cutting & binding to required shapes and length 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, fan hooks etc. for all heights and depths etc. complete the work as directed.	KG	100	100				
<b>d</b>	<b>Providing and Laying Reinforced Cement Concrete (M-25)</b>							
24.4	Providing and laying REINFORCED CEMENT CONCRETE OF M-25 Grade (Concrete shall be design / nominal mix) with 20mm & down size graded aggregates in NON SUSPENDED slabs / pavement slabs including pedestals, ramps etc. filling pockets with grouting, laying in alternate panels to required slopes, all necessary form work and finishing the top surface rough or smooth as required and directed, providing pockets/openings, recesses, chamfering etc. wherever required, vibrating, tamping, curing, and rendering smooth if required in any position, shape, level and thickness etc. all complete as specified, shown and directed. Rates to include all materials ( <b>other than steel</b> ), labour, shuttering and necessary works required to make work complete.	Cu. M	5	5				
Note:	The payments of Steel shall be paid as per SOR no. 24.3							
<b>Supply and Installation of wired cages for MRS-Total (Z)</b>								
<b>GRAND TOTAL ( X+Y+Z )</b>								
<b>NOTE:</b>								