

2020

Engineering, Procurement, Construction, Testing, Commissioning, Trial Run and Operation & Maintenance of Various Components of " Machagora Multi- Village Scheme, District Chhindwara " in Single Package on Turn-Key Job Basis.



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ITEMS	DESCRIPTION
NIT	44/Proc./MPJNM/2019-20
TITLE	Engineering, procurement, construction, testing, commissioning, trial run and operation & maintenance of various components of " Machagora Multi- Village Scheme, District Chhindwara " in single package on 'turn-key job basis' including trial run and operation & maintenance of the entire scheme for 10 years. Scheme 1 –Machagora– 846.68 Cr
BRIEF SCOPE OF WORK	<ol style="list-style-type: none"> 1. The successful bidder has to carry out entire work of Planning, Survey, Soil investigation, Designing, Construction as per the Schedule program, testing, commissioning, trial run of completed scheme and 10 years operation & maintenance of entire water supply scheme after getting a confirmatory survey done with the intention to serve the basic purpose of contract, that is to ensure the supply of drinking water in designated quantity to all villagers & to customers/ institutions/ offices identified for bulk water usage located within the revenue boundary of villages as listed vide Appendix-I. 2. The bidder is/ are required to carry out the survey including necessary data collection from concerning division of PHED of old water supply schemes and if the existing components i.e. pipe line, OHT/ GSR, etc.
TYPE OF CONTRACT	Lump Sum Contract
COST	846.68 Crores
EMD	50 Lakhs
TIME OF COMPLETION	Scheme 1 – Machagora - 36 Months
SUBMISSION OF TENDER	Cover 1 – Prequalification And Emd Cover 2 - Technical Cover 3 – Financial
FINANCIAL CRITERIA	The bidder or jv should have average annual turnover of at least 50% of tpac in last 3 financial years preceding the tender submission date at current price level (2018-19).
TECHNICAL CRITERIA	<p>The Bidder or Lead Partner in case of JV must have experience of executing satisfactorily completely or substantially completed (substantially completed means not less than 90% of agreement value, and for which certificate is issued) integrated water supply scheme comprising of raw water intake well cum pump house, ESR/OHBR, raw / clear water reservoir / GSR, Water Treatment Plant, pipe line work within last seven years from the date of bid notification as follows:</p> <ol style="list-style-type: none"> i. Three works costing not less than the amount equal to 40% of the TPAC. or ii. Two works costing not less than the amount equal to 50% of the TPAC. or iii. One work costing not less than the amount equal to 80% of the TPAC.
O & M	The Bidder or Lead Partner in case of JV should have executed, commissioned, and post-commissioning, operated and maintained satisfactorily for minimum 36 months at least one similar integrated water supply work of minimum 10% of TPAC comprising of intake well,

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	pumping machinery, water treatment plant, pipeline and elevated storage reservoir.
WORKING CAPTIAL	Should not be less than 15% of the TPAC
NET WORTH	Net Worth of the bidder or JV of last Financial Year should not be less than 10% of the TPAC
SECURITY DEPOSIT	Shall be equal to 10% (ten percent) of the sum of amount of contract in the form of the unconditional and irrevocable bank guarantee executed.
PRE-BID MEETING	Office of The Managing Director, Madhya Pradesh Jal Nigam, D-Wing, 2nd Floor, Vindhyaachal Bhawan, Bhopal (M.P.) PIN – 462004.
IMPORTANT DATES	Bid Submission Date 27-Jul-2020 05:30PM Pre Bid Meeting Date 08-Jul-2020 03:00 PM

TECHNICAL ASPECTS AND DETAILED PROJECT SCOPE

P.T.O

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SCHEME 1 - MAIN WORKS FOR MACHAGORA MULTI-VILLAGE SCHEME

S. No.	Main works																		
1	Construction of Intake well cum pump house having minimum 11.0 m diameter and approx. 57.60 m (including pump room 6 m high) deep to draw a total of 109.35 million litres of water in 23 hours flow with provision for automation, construction of R.C.C Foot Bridge suitable approach bridge approx. 200 meters, min. 5 m wide with approach road (excluding space for pipeline, kerb, cable duct, railing, electric poles, etc) approx. 100 m length & all other necessary/ancillary structures required at the bank of Machagora Dam near Machagora village, Chindwada District. Raw water shall be taken from the back water of Machagora dam by intake well.																		
2	Raw water pumping main of 1000 mm dia. MS (10 mm thick) of length 1980m including flow meters, valves, sluice valves, air valves, scour valves, valve chambers, thrust blocks, crossings, specials & accessories etc. complete including road restoration.																		
3	Water treatment plant to provide 98.10 million litre treated clear water in 23 hours near Jambhodipanda Village, Chaurai Block, Chindwada District including automation (SCADA), construction of boundary wall, internal roads, electrification, etc. and all other necessary ancillary structures required.																		
4	<p>Providing, laying, jointing, testing & commissioning of clear water pumping main of diameter and approximate length as detailed below of DI-K9 & DI-K7 with in- lining and out-coating as per IS 8329 including flow meters, valves, sluice valves, air valves, scour valves, valve chambers, thrust blocks, crossings, specials & accessories etc complete including road restoration.</p> <p><u>K-9</u></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">1. 250 mm diameter</td> <td style="text-align: right;">13210 m</td> </tr> <tr> <td>2. 300 mm diameter</td> <td style="text-align: right;">12000 m</td> </tr> <tr> <td>3. 600 mm diameter</td> <td style="text-align: right;">69080 m</td> </tr> <tr> <td>4. 800 mm diameter</td> <td style="text-align: right;">15050 m</td> </tr> </table> <p><u>K-7</u></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">1. 100 mm diameter</td> <td style="text-align: right;">830 m</td> </tr> </table>	1. 250 mm diameter	13210 m	2. 300 mm diameter	12000 m	3. 600 mm diameter	69080 m	4. 800 mm diameter	15050 m	1. 100 mm diameter	830 m								
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5	<p>Providing, laying, jointing, testing and commissioning of clear water trunk main, DI- K9 & K7 as per IS 8329 and/ or MS pipe as per IS, specified in specification including flow meters, valves, sluice valves, air valves, scour valves, valve chambers, thrust block, crossings (rail and road), specials & accessories, etc.</p> <p>complete including road restoration of diameter and corresponding length as detailed below:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Type of Pipe</th> <th style="text-align: center;">Diameter in MM</th> <th style="text-align: center;">Length in Meters</th> <th style="text-align: center;">Remark</th> </tr> </thead> <tbody> <tr> <td rowspan="6" style="text-align: center;">Up to 800 mm DI K-9 Pipe Above 800 mm DI K-9 or MS Pipe</td> <td style="text-align: center;">100</td> <td style="text-align: center;">189830</td> <td rowspan="6"></td> </tr> <tr> <td style="text-align: center;">150</td> <td style="text-align: center;">135131</td> </tr> <tr> <td style="text-align: center;">200</td> <td style="text-align: center;">57496</td> </tr> <tr> <td style="text-align: center;">250</td> <td style="text-align: center;">38590</td> </tr> <tr> <td style="text-align: center;">300</td> <td style="text-align: center;">21235</td> </tr> <tr> <td style="text-align: center;">350</td> <td style="text-align: center;">9610</td> </tr> </tbody> </table>	Type of Pipe	Diameter in MM	Length in Meters	Remark	Up to 800 mm DI K-9 Pipe Above 800 mm DI K-9 or MS Pipe	100	189830		150	135131	200	57496	250	38590	300	21235	350	9610
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S. No.	Main works				
		400	14554		
		450	14756		
		500	16822		
		600	31709		
		700	8100		
		750	750		
		800	5751		
		900	1350		
		Total	545,684		
	Type of Pipe	Diameter in MM	Length in Meters	Remark	
	Up to 800 mm DI K-7 Pipe Above 800 mm DI K-7 or MS Pipe	100	250045		
		150	100780		
		200	63103		
		250	54870		
		300	24372		
		350	18420		
		400	19984		
		450	26500		
		500	13085		
		600	19590		
		700	11770		
		750	6380		
		800	14750		
		900	7580		
	1000	2870			
		Total	634,099		
6	<p>(a) Construction of Overhead Service Reservoirs (OHSR) at different villages of following capacity and staging of minimum 12m or as per design to maintain the required minimum residual pressure of 7m at consumer end including provision of flow meters at each reservoir including operator room, compound wall and approach road.</p>				
S. No.	Village	Capacity (KL)	S. No.	Village	Capacity (KL)
1	Chaneri	180	142	Saliwara	100
2	Chimauwa	100	143	Umariya Ojha	210
3	Kosmi	120	144	Pandrai	190
4	Hirri Mukasa	150	145	Sethiya	120
5	Bardhiya	100	146	Bichhua Pathar	530
6	Sawarwada	130	147	Bijori Kala	120
7	Thawari Kalan	160	148	Harnbhata	160
8	Khami	100	149	Babai	230
9	Barela	150	150	Lachhuwa	110
10	Khuesipar	100	151	Badegaon	150
11	Lingpani	170	152	Sagoniyai	270
12	Markawara	160	153	Bhokai	230
13	Bineki	160	154	Bakkachhar	150

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S. No.	Main works					
14	Dhaturiya	100	155	Dhabai	110	
15	Jurtara	120	156	Nandora	100	
16	Ramgad	130	157	Hatheda	730	
17	Pipariya Fattepur	210	158	Guriya	180	
18	Bandra	140	159	Khami Hiya (Khami Hira)	200	
19	Deori Kalan	130	160	Pindrai Saraf	250	
20	Kalkoti	160	161	Bangla Ryt	150	
21	Mouari	120	162	Mathni	110	
22	Singma	200	163	Jhurremal	280	
23	Mehgora	140	164	Tumdi	200	
24	Tumda	100	165	Mandli	130	
25	Thanwri	120	166	Thesgora	120	
26	Chandanwada	120	167	Sarna	260	
27	Machagora	150	168	Bangaon	220	
28	Amaboh	200	169	Lakdai Jamhodi	100	
29	Bijhawada	160	170	Jhiri	200	
30	Parasia	100	171	Nagjhir	180	
31	Kunda	260	172	Rajakhoh	200	
32	Salkhani	100	173	Meghaseoni	250	
33	Kirangipar	240	174	Kaparwadi	170	
34	Khirkhiri	110	175	Khapamitthe Khan	100	
35	Kamthi	170	176	Jhirlinga	180	
36	Morkha	220	177	Rohnakhurd	100	
37	Dungariya	260	178	Thawri Khurd	120	
38	Giratia Dhamni	180	179	Ner	280	
39	Mohagaon Bisala	100	180	Khairibhutai	100	
40	Ghorawadi	130	181	Ghatparasia	160	
41	Sitajhir	140	182	Mendhkital	140	
42	Maduwa Khurd	120	183	Malhanwara	120	
43	Sarra	240	184	Bhanadehi	160	
44	Sankh	130	185	Pakhadiya	120	
45	Karlai	140	186	Shahjpuri	170	
46	Dhutmur Ryt	140	187	Keolari	100	
47	Dhamniya Mall	220	188	Chursa	150	
48	Kukrai	150	189	Zamata	100	
49	Mandariya	170	190	Dhodakhapa	170	
50	Kona Pindrai	200	191	Jhiriya	160	
51	Dhaulpur	170	192	Jakhawari	150	
52	Rampur	120	193	Nishandariyao	130	
53	Ambadi	100	194	Sirkuhi	100	
54	Deni	250	195	Umariya	130	
55	Silota Khurd	110	196	Gadarwara	100	
56	Sirepani	120	197	Pathranai	330	
57	Mohagaon Kalan	100	198	Umariya Dalel	100	
58	Sagar	170	199	Gonawadi Fakeer	110	
59	Khamariya (Mal)	170	200	Sarangbihri	280	

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S. No.	Main works					
60	Pathara Kurd	200	201	Bothiya	180	
61	Thota Mal	160	202	Karer	100	
62	Panjra Dola	160	203	Kukadi Khapa	100	
63	Bachchakuhi (Mal)	100	204	Rangiritalab	110	
64	Doklikalan	180	205	Sillewani	140	
65	Karel	100	206	Ambajhiri	120	
66	Kharimali	100	207	Guraiya	520	
67	Surangi	110	208	Khairwada	110	
68	Gummaj Khamariya	100	209	Tiwdakamath	130	
69	Nawegaon Gond	160	210	Khunajhir Kalan	120	
70	Loharbatri	110	211	Saankh	240	
71	Jamuniya Kalan	200	212	Loniya	420	
72	Khamra	150	213	Chargaon	140	
73	Ubhegaon	260	214	Arjunwadi	100	
74	Kekada	120	215	Murmari	120	
75	Nilkanthi Khurd	290	216	Rohna Kalan	450	
76	Pathra Jangli Mal	100	217	Thuniya Udana	100	
77	Ragda	100	218	Pyayli	110	
78	Khapa Bihari	240	219	Patpada	210	
79	Mudiya Kheda	250	220	Harnkheda	100	
80	Dhimarmeta	110	221	Pathkheda	110	
81	Khapa Kalan	320	222	Pura	180	
82	Mandanpur	210	223	Mankadehi Khurd	240	
83	Bijepani	200	224	Machhera	140	
84	Susarai	150	225	Kalkot	100	
85	Pulpuldoh	190	226	Vijaygarh	100	
86	Dhamniya	170	227	Govindwari Mall	100	
87	Sonapipri	100	228	Pardhanghogri	100	
88	Badiwara	100	229	Matiyadoh	250	
89	Harnakheri	190	230	Lawa Ghogri	110	
90	Keriya	140	231	Pandhri Khapa	110	
91	Wikla	200	232	Maini Khapa Mal	110	
92	Khutpipariya	130	233	Dodia	100	
93	Nandna	200	234	Chhura BOha	100	
94	Parsoli	170	235	Jhalakui	120	
95	Panchgaon	130	236	Temni Kalan	160	
96	Bari	150	237	Paunar	250	
97	Chandangaon	180	238	Bhaiopur	100	
98	Lalgaon	160	239	Bhutai	230	
99	Pauniya	110	240	Badnoor	110	
100	Pipariya Khati	220	241	Pathrashivlal	160	
101	Jamuniya	170	242	Narsala	200	
102	Belagaon	130	243	Kamthi	150	
103	Palatwara	260	244	Chargaon Karbal	120	
104	Uddadon	140	245	Bhajipani Khurd	110	
105	Sihoramal	300	246	Kodamau	150	

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S. No.	Main works										
106	Kenya Gond (Keriya)	190	247	Rajola Raiyat	110						
107	Chorgaon	240	248	Chaurai	180						
108	Dhanora Gosai	250	249	Badgona FV	100						
109	Bhandi	180	250	Bhawari Ryt	100						
110	Bohna	150	251	Dip	100						
111	Kakai	170	252	Mohgaon Narjee	100						
112	Panthkhera (Panth)	100	253	Belakherda	100						
113	Karaghat	100	254	Mehlari Bakul	120						
114	Madhuwa Dhana	180	255	Borgaon	100						
115	Bhula	140	256	Salaiya Khurd	140						
116	Pathar Punji	150	257	Ghagar Talai	160						
117	Kohniya Ryt	120	258	Karla Khurd	100						
118	Kalmandi	200	259	Jhanki	170						
119	Siladehi	100	260	Tinsai	100						
120	Moyari	100	261	Mujwara Pashchip Ryt	180						
121	Thawari Damodar	110	262	Domri	130						
122	Khamra Jethu	400	263	Mujawar Mai	280						
123	Gulba	110	264	Chandameta Ryt Wari	100						
124	Damua Raiyat	100	265	Kara Bohe	180						
125	Ridhora	170	266	Moredongri Khurd	100						
126	Bijori Gumai	320	267	Bhooli	100						
127	Umreth	600	268	Kharjri Antu	170						
128	Damua Maal	240	269	Gularkhapa Ryt	100						
129	Bijakwara	150	270	Dongarkhapa Ryt Wari	160						
130	Rawanwara	890	271	Khukariya Ryt	170						
131	Kosmi	160	272	Mahedamalkhapa	160						
132	Sahpani	100	273	Sindrai Guriyathar	170						
133	Bijagora	160	274	Bijori Khurd Marram	100						
134	Baranga Khurd	160	275	Badgona Joshi	380						
135	Dholan Khapa	110	276	Kalithuni	100						
136	Jamuniya Jaithu	100	277	Bichhua	530						
137	Kundalikhurd	320	278	Chindboh	100						
138	Usariya	100	279	Pipariya	120						
139	Gangiwara	360	280	Gourakhpur	100						
140	Moadel	100	281	Umardoh	130						
141	Chhitri	120	282	Dhagadiya Mal	180						
<p>(b) Construction of Sumps having following capacity, including all works complete.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;">1. Node 65 near Khami OHT</td> <td style="text-align: right;">215 KL</td> </tr> <tr> <td>2. Node 103 to Dhabera MBR Zone-2A</td> <td style="text-align: right;">300 KL</td> </tr> <tr> <td>3. Node 226 to near Bardiya OHT Zone1A</td> <td style="text-align: right;">50 KL</td> </tr> </table>						1. Node 65 near Khami OHT	215 KL	2. Node 103 to Dhabera MBR Zone-2A	300 KL	3. Node 226 to near Bardiya OHT Zone1A	50 KL
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2. Node 103 to Dhabera MBR Zone-2A	300 KL										
3. Node 226 to near Bardiya OHT Zone1A	50 KL										

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Main works

4. Node 225 of Jhagdaboh MBR Zone-1A	50 KL
5. Node 74 of Dhabera MBR Zone-2	50 KL
6. Node 89 of Donger Temni MBR Zone-3	50 KL
7. Junction 1 Near Gathmari Village	3650 KL

(c) Construction of MBR / BPT with following capacity.

1. Near WTP	1215 KL MBR-1
2. Village Dhabera	910 KL MBR-2
3. Village Donger Temni	960 KL MBR-3
4. Village Jhagdaboh	150 KL MBR
5. Village Siladehi	150 KL MBR

All MBR/ BPT/ IPS/ WTP shall have boundary wall as defined in bid document but all ESRs/ GSRs shall have G.I. chain link fabric fencing of mesh size 25x25mm made of G.I. wire of 3 mm diameter including strengthening with welding or nuts, bolt & washers etc. complete. It shall have ISA 50x50x5mm angle iron post at a spacing 2.5 m center to center of height 2m above ground level embedded in M20 cement concrete 30x30 cm pillar minimum 75cm below ground level. Every 7th post & corners shall be strutted with similar specification angle iron & grouting. The top & bottom of chain link as well as on angle a 25x3mm flat secured with either weld or rivets or bolts, to make fencing safer, shall be provided. It shall have angle iron gate of size 3.0m x 1.8m having ISA 50x50x5mm angle iron & 16mm diameter plain M.S. bar including AL drop, holdfast etc. and shall be fixed up in 45x45 cm wide R.C.C. pillars. An additional gate of size 0.6mx1.5m shall also be provided within the same gate, to avoid opening of bigger gate all the time & it shall be made of IS 40x40x5mm angle iron with AL drop, etc.

The CW sump cum pump houses and GLBR/ MBR/ BPT will have 2m high boundary wall with 'Y' shape angle iron with 2*3 rows of wire bed, wire fencing at top of boundary wall and gate, one room set of area 25sqm size with W.C. & bathroom, automation system and electrification with area lighting, etc. complete. The size of fencing or boundary wall shall be 20x20m including gate for these structures & if it increases or decreases then accordingly variation shall be paid or deducted as per UADD ISOR w.e.f. 1st May 2012 (with up to date amendments). One room set of minimum area 25 sqm size with W.C. & bathroom and housing of automation system and solar/ single phase electrification with area lighting, landscaping, plantation, etc. complete.

The approach road for the MBR, OHSR, etc. shall be of approx. 30 m for each location. Any alteration to the total length of approach roads considering all structures shall be paid or deducted as per the MPPWD SOR w.e.f. 29th August 2017 (with up to date amendments). The length of the approach road shall be finalized by the Engineer-in-Charge.

The CW sump cum pump houses and GLBR will have 2 m high Boundary Wall with Y shape angle iron with 2*3 rows of wire bed, wire fencing at top of boundary wall and gate, one Room set of area 25 sq.m size with toilet, automation system and electrification with area lighting etc. complete.

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S. No.	Main works
7	<p>Distribution network of diameter and approximate length as detailed below comprising of HDPE, PE100 PN6 (minimum) and DI-K7 pipelines including valves, specials, sluice valves, air valves, scour valves, valve chambers, thrust block, bulk water meters for all villages, specials & accessories, etc. complete including road restoration and other allied works</p> <ul style="list-style-type: none"> a. 90 mm dia. minimum 6 kg/cm² pressure - 1907076 m b. 110 mm dia. minimum 6 kg/cm² pressure - 67012 m c. 160 mm dia. minimum 6 kg/cm² pressure – 113078 m d. 200 mm dia. minimum 6 kg/cm² pressure – 191340 m e. 250 mm dia. minimum 6 kg/cm² pressure – 617306 m
	<ul style="list-style-type: none"> a. 100 mm dia. DI-K7 Pipe - 8375 m b. 150 mm dia. DI-K7 Pipe - 4900 m
8	<p>Pumping equipment including suitable motors, protection equipment's for following-</p> <p>(A) Providing and installation of 4 Nos. suitable energy efficient deep well vertical turbine pumps for raw water at Intake well cum pump house i/c automation as under:</p> <ul style="list-style-type: none"> (a) 2 No. (W) pumps of 525.5 lps discharge each and approx. 69 m head (b) 2 No. (S) pumps of 262.75 lps discharge and approx. 69 m head The pumps given above are inclusive of standby pumps <p>(B) Providing and installation of suitable energy efficient Centrifugal pumps for Clear water at CW sump cum pump house at WTP, and CW sump cum pump houses for pumping stations- 1 & 2, i/c automation as under:</p> <p>For CWPH Sump to MBR-1 near Panthkhera OHT:</p> <ul style="list-style-type: none"> (a) 2 No. (W) pumps of 209.5 lps discharge each and approx. 102 m head (b) 2 No. (S) pumps of 104.75 lps discharge each and approx. 102 m head <p>For CW to Junction -1:</p> <ul style="list-style-type: none"> (a) 2 No. (W) pumps of 298.5 lps discharge each and approx. 113 m head (b) 2 No. (S) pumps of 149.25 lps discharge each and approx. 113 m head <p>For Junction -1 to Dhabera MBR-2:</p> <ul style="list-style-type: none"> (a) 2 No. (W) pumps of 150.5 lps discharge each and approx. 119 m head (b) 2 No. (S) pumps of 75.25 lps discharge each and approx.119 m head <p>For Junction -1 to DONGER MBR-3:</p> <ul style="list-style-type: none"> (a) 2 No. (W) pumps of 148 lps discharge each and approx. 123 m head (b) 2 No. (S) pumps of 74 lps discharge each and approx. 123 m head <p>For Zone-3 Node -89 Donger Temni MBR-3 to Node -90 Oht at Mujwar Ryt:</p> <ul style="list-style-type: none"> (a) 2 No. (1W+1S) pumps of 3.0 lps discharge each and approx. 36 m head <p>For Node-65 of MBR-1 ZONE-1 near Khami OHT to Jhagdaboh MBR of Zone- 1A:</p> <ul style="list-style-type: none"> (a) 2 No. (W) pumps of 17.50 lps discharge each and approx. 139 m head (b) 2 No. (S) pumps of 8.75 lps discharge each and approx. 139 m head

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S. No.	Main works
	<p>For Zone -2 Node -103 Dhabera MBR to Siladehi MBR of Zone -2A: (a) 2 No. (W) pumps of 24 lps discharge each and approx. 139 m head (b) 2 No. (S) pumps of 12 lps discharge each and approx. 139 m head</p> <p>For Zone -1A Node -226 Jaggdaboh MBR to Node -142 OHT at Bardiya: (a) 2 No. (1W+1S) pumps of 3 lps discharge each and approx. 52m head</p> <p>For Zone -2 Node -74 Dhabera MBR-2 to Node -76 OHT at Mathni: (a) 2 No. (1W+1S) pumps of 3 lps discharge each and approx. 25m head</p> <p>For Zone -1A Node -225 Jhagdaboh MBR to Node - 215 OHT at Chaneri: (a) 2 No. (1W+1S) pumps of 4 lps discharge each and approx. 64m head</p> <p>The pumps are inclusive of standby pumps</p>
9	<p>Provision for dedicated power supply lines from nearby substation to WTP, intake well cum pump house inclusive of all allied works complete as detailed below:</p> <p>(a) 11 KV: 21 km</p> <p>Provision of stretching suitable capacity electric line and taking connection for clear water sump cum pump houses. Any other work necessary to cater the power supply demand of the project (as variation).</p> <p>The work includes construction of substations and stretching of power lines and internal and external electrification etc. complete at all components.</p> <p>Supply, installing, testing and commissioning of following sized transformers and other ancillary works required, along with suitable sized transformer yards complete in all respects as per specifications:</p> <ol style="list-style-type: none"> i. 2 (1W+1S) Number 1250 kVA at Intake/ Raw water Pump House ii. 2 (1W+1S) Number 1600 kVA at Clear Water Pump House/ WTP At different Intermediate Pump Houses (wherever required) iii. 2 (1W+1S) Number 630 kVA iv. 2 (1W+1S) Number 1000 kVA v. 2 (1W+1S) Number 1000 kVA vi. 2 (1W+1S) Number 100 kVA vii. 2 (1W+1S) Number 160 kVA <p>The locations of installation of transfers are Raw Water Intake Pump House, Clear Water Pump House, WTP, Intermediate Pumping Stations (IPS), etc.</p> <p>100% standby transformer capacity is to be maintained at each installation site of transformers.</p>
10	Design, Supply, Delivery, Erection, Testing & Commissioning of Automation Components for Monitoring & Maintenance with GPRS Communication with all necessary accessories. (SCADA)
11	House Service Connection - 174004 Nos. (Up to end of O&M Period)

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S. No.	Main works
12	<p>Construction of Staff Quarter / Office Building: Office Building/Admin block - 01 No. in WTP campus - 225 sqm. Store Building - 01 No. – 75 sqm F-type staff quarter with minimum plinth area 46.5 Sqm each - 01 No G-type staff quarter with minimum plinth area 93.0 Sqm each - 02 Nos. H-type staff quarter with minimum plinth area 46.5 Sqm each - 04 Nos. I-type staff quarter with minimum plinth area 32.5 Sqm each - 04 Nos. Office Building of 400 sqm at place directed by MPJN</p>
13	<p>Operation & Maintenance of the whole scheme for first year</p> <p>The Operation and Maintenance cost for the first year, in terms of percentage of contract Amount is given in Annexure H.</p> <p>For every subsequent year, the first-year percentage rates will be increased/ decreased according to the percentage change in consumer price index issued by Labour Bureau, GOI (All Industrial Worker) for that period. The index on the date of completion of trial run period will be treated as base for calculation of percentage point increase/decrease in O&M cost of next year. Payment of O&M will be made quarterly.</p> <p>NOTE:</p> <ol style="list-style-type: none">The operation & maintenance period is 10 years from the date of completion of three months of trial run after successful commissioning of the project.The cost of energy charges (excluding penalties) shall be paid by MPJN on reimbursement basis.Energy Requirement: The estimation for maximum yearly consumption of energy is 1,29,12,873 kWh (Unit) for design period. The estimate will be finalized based on the equipment installed as per the approved design. For intermediate years, payment will be made on pro rata / calculation basis. <p>If due to any reasons, whatsoever it is desired to supply water in some of the villages before final commissioning and trial run, then the pro-rata rates derived from the Annexure H shall be applicable for the part payment on the basis of duration and quantity supplied, but the date of commissioning of whole work shall be applicable from the dates as stipulated in this contract.</p>

END OF THE DOCUMENT