ESTIMATE

Name of work : Supply, Installation & Construction of Solar Energy based Dual Pump Piped Water Supply Scheme

Items	Rate Rs	Unit	Qty	Amount Rs
1	2	3	4	5
(1) SPV SOLAR PUMP SYSTEM 01 H.P. SPV SUBMERSIBLE brushless DC motor pump set suitable for 115 to 150mm dia bore well as per following technical specification. a) Solar panal (PV Array) - 900 WP. b) Motor pumpset - 1 HP, 900 W submersible pump set brushless DC pump (B.L.D.C.). c) Maximam shut off head - 120 meter d) Module mounting structure - M. S. hot dip galvanised, with manual tracking of three time polesize 0.09 mt.dia.x 3 mt.height. e) Discharge - 5000 lit per day for 90 meter dynamic head. f) Submersible cable- 2.5 mm x 3 core as per IS: 694 g) Control panal - Suitable for above pumpset with arrangement of dry run protection, float switch &rain preventive box etc. (Additional GST @5% (120000+6000=126000) (MNRE letter No.30/11/2012-13/NSM date-17/3/2017)	126000	set	1	126000.00
				126000.00

Sr No	Items	Rate Rs	Unit	Quantity	Amount Rs
1	2	3	4	5	6
(2) CONSTRUCTION OF HANDPUMP PLATFORM					
1	Water Quality Testing (Zilla parishad work)	500.00	job	1	500.00
2	Yeild testing charges.(GSDA Letter No 5660/2017 Dt.4/09/2017) (Zilla parishad work)	3000.00	job	1	3000.00
3	Removal & installation of handpump at the time of Yeild testing.(GSDA letter no 5660/2017 date 4/09/2017)	1050.00	job	1	1050.00
4	Supply of Special water chamber (GSDA Letter No 5660/2017 Dt.4/09/2017)	2300.00	no	1	2300.00
5	Supply of S.S. nipple (GSDA Letter No 5660/2017 Dt.4/09/2017)	575.00	no	1	575.00
6	Supply of HDPE pipe ISI mark 32 mm Dia.suitable for pressure of 6 kg/cm2 (PWD / electrical DSR 2017-18 Item No.16 : 5 : 16 page no.293)	77.00	mtr	60	4620.00
7	Excavation In earth as per Drawing of Hand pump platform as per direction of site engineer (GSDA Letter No 5660/2017 Dt.4/09/2017)	137.00	cum	2.600	356.20
8	Dry Rubble soling as per direction under the platform of Hand pump (GSDA Letter No 5660/2017 Dt.4/09/2017)	885.00	cum	2.329	2061.16
9	Construction of platform as per type design In C C 1:2:4(GSDA Letter No 5660/2017 Dt.4/09/2017)	4150.00	cum	1.143	4743.45
					19205.81
(3) FENCING & FOUNDATION FOR TRACKER					
1	Providing & erecting chain link fencing 1.6 mtr height with G I chain link of size 50 x 50 mm 8 SWG thick and fixed 75 mm above GL vertical M.S. angle of 40 x 40 x 6 mm size embedded in cc block 1 :4: 8 mix of size 450 x 450 x 670 mm at 1.75 m centre to centre with iron bar 16 mm dia as a hold fast including welded link with angle frame at 30 cm centre to centre nuts & bolts & horizontal MS angle at top & bottom of 25 x 25 x5 mm size & vertical MS flat 35 x 5 mm & 25 x5 mm horizontal including cross supports of 40 x 40 x 6 mm angle both sides at every corner in cc with 3 coat of oil painting etc complete (PWD DSR 2017-18,Nashik Region Bd-W-Item No.53)	1673.00	Rmt	11	18403.00

2	Providing & fixing **M S grill gate with frame** having weight of gate 20 kg/sqm as per the detailed drawing including hinges, pivot blocks locking arrangement welding riveting and three coats of oil painting of approved shed ect. complete.(PWD DSR 2017-18, BDW 6A Item No.23.09 Page No 176)	1398.00	sq mtr	1.5	2097.00
3	**Excavation for foundation** in earth soil of all types sand, gravel & **soft murum**, including removing the excavated material up to a distance of 50 Meter & stacking, spreading as directed, normal dewatering the bed for foundation & **excluding back filling** etc. complete (MJP DSR 2016-17,Sect. E Sr.no 1(BD-A-1/259))	143	cum.	2.352	336.33
4	**Excavation for foundation** in earth soil of all types sand, gravel & **hard murum**, including removing the excavated material up to a distance of 50 Meter & stacking, spreading as directed, normal dewatering the bed for foundation & **excluding back filling** etc. com (MJP DSR 2016-17, Sect. E Sr no 2 (BD-A-2/259)	161	cum.	1.568	252.44
5	Providing dry trap /granite / quartzite / gneiss **rubble stone soling in 15 cm to 20 cm thick** layers including hand packing & compacting, etc. compl (MJP DSR 2017-18, Sect.E Sr.no 18)	895	cum.	0.588	526.26
6	Providing & laying in situ following **M150 C.C**. of trap / granite/ gneiss metal **for foundation & bedding** including dewatering , form work , compacting & curing finishing etc. complete (MJP DSR 2016-17, Sect.G Sr no 1-a)	4777	cum.	0.196	936.29
7	**Footing -** Providing & laying in situ C.C. of trap granite/Quartzite/ gneiss metal for approved quality for **RCC M-200** work in foundation like raft, grillage, strip foundation & **footing of RCC columns** and steel stanchions including normal dewatering, plywood form work, compaction, finishing & curing ect. complete. (MJP DSR 2016-17, Sect.G Sr no 1-b)	4879	cum.	0.432	2107.72
8	**Column-** Providing & casting in situ **Cement Concrete** of trap granite/Quartzite/ gneiss metal of approved quality for **RCC work** as per detailed drawing & design or as directed by engineering in charge including normal drawing, centering, form work, compaction finishing the formed surfaces with CM 1 : 3 sufficient minimum thickness to give a smooth & even surface wherever necessary or roughening if special finish is to be provided & curing etc. complete. **RCC M 200** (MJP DSR 2016-17, Sect.G Sr no 2b)	6452	cum.	0.648	4180.89
9	Providing & fixing in position **steel bar reinforcement** of various dia. **For RCC work like foundation,** beams, column etc as per detailed drawing design including cutting, bending, hooking the bars binding with wires or track welding & supporting as required etc. complete. for Solar foundation (MJP DSR 2016-17, Sect.G Sr no 7a)	49494	MT	0.07	3464.58
10	**Filling in plinth & floors murum** bedding in trenches with approved murum from excavated materials from foundation. 15 cm to 20 cm layers including watering & compaction complete. (MJP DSR 2016-17, Sect.E Sr no 16)	63	cum	2.24	141.12
					32445.63
(4) STRUCTURAL WORK					
1	**For column & beam of structure** Excavation for foundation in earth including excavated material up to distance of 50 m. and lift as below stacking spreading as directed de-watering showing and structing preparing the bed for foundation lift 0 to 1.5 m. (MJP DSR 2016-17,Sect.E Sr no 1,2,3(Bd-A-1,2,3/259))				
	A) In soil	143.00	Cum	2	286.00
	B) In Hard murum	161.00	Cum	2	322.00
	C) In Hard murum with Bolder	181.00	Cum	0.8	144.8
2	**For structure** Providing **structural steel work** in trusses other similar trussed purlins and members with bracing gusset plates etc. as per detailed design and drawing or as directed by engineer in charge including cutting fabricating hoisting erecting and fixing in position making riveted bolted welded connections and one coat of anti corrosive paint and over it two coats of oil painting etc. complete (MJP DSR 2016-17, sect.F Sr no 6 (Bd-C-8/278))	66.13	Kg.	525.74	34767.18
3	**For structure-** Providing & applying material & labour for hot dip galvanizing of above structure including transportation for galvanizing. (As per market rate)	33.25	Kg.	525.74	17480.85

4	**Information board for IEC** Providing **structural steel work** in trusses other similar trussed purlins and members with bracing gusset plates etc. as per detailed design and drawing or as directed by engineer in charge including cutting fabricating hoisting erecting and fixing in position making riveted bolted welded connections and one coat of anti corrosive paint and over it two coats of oil painting etc. complete (MJP DSR 2016-17, sect.F Sr no 6 (Bd-C-8/278))	66.13	Kg.	21.31	1409.23
5	**Information board of scheme** Providing **structural steel work** in trusses other similar trussed purlins and members with bracing gusset plates etc. as per detailed design and drawing or as directed by engineer in charge including cutting fabricating hoisting erecting and fixing in position making riveted bolted welded connections and one coat of anti corrosive paint and over it two coats of oil painting etc. complete (MJP DSR 2016-17, sect.F Sr no 6 (Bd-C-8/278))	66.13	Kg	19.79	1308.71
6	Material & labour for vinyl painting of matter given by dept. in diff. colour (As per market rate)	1800.00	sq.mt	2.6	4680.00
7	**Column-** Providing & casting in situ C.C. of trap granite/Quartzite/ gneiss metal of approved quality for **RCC work** as per detailed drawing & design or as directed by engineering in charge including normal drawing, centering, form work, compaction finishing the formed surfaces with CM 1 : 3 sufficient minimum thickness to give a smooth & even surface wherever necessary or roughening if special finish is to be provided & curing etc. complete. RCC M 250 (MJP DSR 2016-17, sect. G Sr.no 4c)	7527.00	cum	0.781	5878.58
8	**PCC -** Providing & laying in situ following **M150 Cement Concrete** of trap / granite/ gneiss metal for **foundation & bedding** including dewatering , form work , compacting & curing finishing etc. complete (MJP DSR 2016-17,Sect.G Sr.no 1a)	4777.00	cum	0.966	4614.58
9	**Footing -** Providing & laying in situ C.C. of trap granite/Quartzite/ gneiss metal for approved quality for **RCC M-200** work in foundation like raft, grillage, strip foundation & **footing of RCC columns** and steel stanchions including normal dewatering, plywood form work, compaction, finishing & curing ect. complete. (MJP DSR 2016-17, Sect.G Sr no 1-b)	4879.00	cum.	0.966	4713.11
10	Providing & fixing in position **steel bar** reinforcement of various dia. For RCC work like foundation, beams, column etc as per detailed drawing design including cutting, bending, hooking the bars binding with wires or track welding & supporting as required etc. complete. for Solar foundation (MJP DSR 2016-17, Sect.G Sr. no 7a)	49.49	kg	62.4	3088.17
11	**Filling in plinth & floors murum** bedding in trenches with approved murum from excavated materials from foundation. 15 cm to 20 cm layers including watering & compaction complete. (MJP DSR 2016-17,Sect.E Sr no 16)	63.00	cum	3.459	217.91
12	**For structure-** Transporting charges of vehicle per trip for **Appox. 125 km** lead including loading unloading & stacking charges. (MJP DSR 2016-17 Statement-VIII)	10673.35	Per Trip	1	10673.25
13	Crane charges for lifting steel structur & water tank (MJP DSR 2016-17 Sect.B Machinary Sr.no.14)	1514.00	hr	4	6056.00
					95640.17
(5) HDPE TANK, PIPE LINE & CIVIL WORK					
1	Providing & fixing LLDPE Rotational Moulded Polythene Cylindrical Vertical Water Storage Tanks (Double Layer) with ISI mark of IS: 12701: 1996 latest revision. Inclusive of delivery up to destination housing fixing of accessories such as inlet, outlet, overflow inclusive of all taxes. Additional GST @12% (8.44+1.0128=9.45 (MSSIDC rate contract 2015-16)	9.45	Lit	5000	47250.00
2	**For Distribution -** Providing and supplying and laying, in standard length ISI mark rigid **unplasticized PVC Pipe** suitable for potable water with solvent cement joint including cost of couplers as per IS specification no 4985/1988 including all local & central taxes, transportation, freight charges, inspection charges, loading, un loading, convence to the departmental stores/ site & stacking the same in closed shed duly protected from sunrays & rains including cost of jointing material i.e. solvent cement etc. complete 63 mm Dia.4 kg/sqcm. (51+16= 67) (MJP DSR 2016-17,Sect.I Sr.no.1a-1 page no.3)	67	Mtr.	200	13400.00
3	Excavation for **pipe line in earth** including excavated material up to distance of 50 m. and lift as below stacking spreading as directed de-watering showing and structing preparing the bed for foundation lift 0 to 1.5 m. (MJP DSR 2016-17,Sec.E sr no 1,2,5,6)				
	A) In soil	157.00	Cum	37.8	5934.60
	B) In Hard murum	177.00	Cum	37.8	6690.60
	C) S.R.	505.00	Cum	25.2	12726.00
	D) H.R.	640.00	Cum	25.2	16128.00

4	**For distribution** Filling in plinth & floors murum bedding in trecheses withapproved murum from excavated materials from foundation. 15 cm to 20 cm layers including watering & compaction complete. (MJP DSR 2016-17, Sec.E Sr no 16)	63.00	Cum	18.9	1190.70
5	**For distribution** Refilling the trenches with available excavated stuff with soft material first over pipeline and then hard material in 15 cm layers with all leads and lifts including consoliidatio surcharging ,etc com. (MJP DSR 2016-17, Sect.E Sr. no 15)	63.00	Cum	106.47	6707.61
6	**For distribution** Providing & construction **two taps stand post** as per approved type & design with excavation , 15cm thick bolder filling 15 cm thick PCC 1:3:6 bedding 20mm thick PCC 1:2:4 concrete for platform of 1.75 mtr Dia. with side curb & bucket rest, 80 mm Dia. Heavy duty GI pipe central post duly filled therein with CC 1:2:4, 5 mtr long, 20mm Dia. medium GI pipe from point of taping to stand post additional 20mm Dia. GI pipe fixed vertically & providing & fixing two 15 mm Dia self closing water taps, 1 brass ferrule ect. complete together with all labour & material charges as per drawing & as directed by Engineer in charge, when B.C. soil is available. rate includes draining arrangement by excavating open gutters. (MJP DSR 2016-17,sect. H sr no 13)	7404.00	no	5	37020.00
7	**For Inlet of tank** Providing & lowering laying of ISI mark **GI pipe of** medium class 25 mm Dia. Including all local & central taxes, octroi, inspection charges, transportation to sores, ect. complete.With one end coupling for full length pipe. As per IS 1239 / 2004(138+33=171) (MJP DSR 2016-17,Sect.I(IV) sr no 1b-3)	171.00	Mtr	15	2565.00
8	**For Raising main -** Excavation for pipe line in earth including excavated material up to distance of 50 m. and lift as below stacking spreading as directed de-watering showing and structing preparing the bed for foundation lift 0 to 1.5 m. (MJP DSR 2016-17 Sec.E, sr no 1,2)				
	A) In soil	143.00	Cum	0.90	128.70
	B) In Hard murum	161.00	Cum	0.90	144.90
9	**For Raising main -** Filling in plinth & floors murum bedding in trecheses withapproved murum from excavated materials from foundation. 50 cm layers including watering & compaction complete. (MJP DSR 2016-17,Sec.E sr no 16**)**	63.00	Cum	0.45	28.35
10	**For Raising main-** Refilling the trenches with available excavated stuff with soft material first over pipeline and then hard material in 15 cm layers with all leads and lifts including consoliidatio surcharging ,etc com. (MJP DSR 2016-17, Sect.E sr no 15)	63.00	Cum	2.3	144.90
11	**For Outlet of tank** Proving & laying of ISI mark GI pipe of medium class 50 mm Dia. Including all local & central taxes, octroi, inspection charges, transportation to sores, ect. complete.With one end coupling for full length pipe. As per IS 1239 / 2004 (rate 277+58=335) (MJP DSR 2016-17,Sect.I(IV) Sr no 1b6)	335.00	Mtr	4	1340.00
12	**For Outlet of tank** Supplying & installing gunmetal gate valve of size 50 mm Dia. As per specification. (PWD DSR 2017-18,item no 13-7-26 page no.271)	1116.00	no	3	3348.00
13	Supplying & erecting heavy duty GI Union in position with necessary material. (MJP DSR (E&M)2016-17,item no pw-4 page no.15,16)				
	A) 25 mm Dia.	94.00	no	1	94.00
	B) 50 mm Dia.	276.00	no	1	276.00
	C) 63 mm Dia.	394.00	no	1	394.00
14	Supplying & erecting water level controller 230/415 V.A.C, four way for under ground & overhead tank operation. PWD DSR (Eel 2017-18 Item no. 12-5-15)	1699.00	no	1	1699.00
15	Providing and erecting main switch 2x2.5 sqmm & earth wire 2.5 sqmm FR **PVC copper wire** in rigid PVC conduit minimum 20 mm Dia as per specification no.WG-MA/PC, para no.1.4.1 (PWD DSR (E&M)2017-18, item no 1-6-5 page no.22)	176.00	mtr	70	12320.00
16	Miscellanous work specials	2000.00	L.S.		2000.00
					171530.36
				Total	**444822.17**
				Supervision Charges 4%	**17793.00**
				Total	**462615.00**