

**Name of work:-New Parking Shed with 5.5 kW & 11 kW Solar Panel Installation Work at various Bauxite mines Project locations, Gadhsisa, Taluka: Mandvi, District: Kutch.**

**Abstract Sheet**

Sr no	SOR 2024-25	ITEM	QTY	Per	Rate	Amount
1	04001C	Earthwork in excavation by mechanical means for foundation, footings, walls, retaining walls, rafts, trenches, drains, lift pits, underground sumps, tank, septic tanks, soak well, Box cutting etc. including dewatering the sub-soil water from any source and rain water to keep the excavation dry, removal of slush, dressing of sides and ramming of bottoms, planking, shoring & strutting, removal & disposal of surplus excavated material with all lead & lift. including compaction by using mechanical plate compactor / vibro roller, finished to desire levels all as per excavation plan and foundation drawings to get Modified Proctor Density test (MPD) of 95%, work including mechanical transport inclusive of royalty, statutory fees all permissions & any other incidental expenses etc. complete. i) sorting out and stacking of useful materials and disposing off the excavated stuff with all lead. Up to 1.5 Mtr Depth (C) Hard Murrum	77.76	Cu.mt		
2	14033	Providing and fixing pre-cast Rubber Dye / steel Dye into locking concrete block 60mm thick with grade of concrete M300 pneumatic compressed / vibrated mechanically and as per approved design Confirming to IS 15658 : 2006 including 35 mm Sand layer for levelling and filling the joint with sand in proper line and level as per guidelines of IRC : SP 63-2018 etc. Complete. all materials, loading, unloading, transportation, placing at all floors and for all leads, at all floors, all levels, all heights and all shapes, all accessories, protection sheet etc. work complete as per the detailed drawing, approved sample and instruction of Architect/EIC.	288.00	sqmt		
3	5.3.13	Providing and laying cement concrete 1:4:8 (1- Cement : 4- coarse sand : 8- hand broken stone aggregates 40 mm nominal size) and curing complete excluding cost of formwork (A) Foundation and Plinth all materials, loading, unloading, transportation, placing at all floors and for all leads, at all floors, all levels, all heights and all shapes, all accessories, protection sheet etc. work complete as per the detailed drawing, approved sample and instruction of Architect/EIC. (minimum cement consumption 170 Kg/cmt)	30.82	cumt		

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4	MR	<p>TOTAL-06 Nos solar Parking Shade                      1) 11kw solar parking shade system-02Nos -LOCATION-(Wandh-Guniyasr Mines and Roha-Kotda Mines ) (DCR PV module only)                      2) 5.5kw solar parking shade system-04Nos -LOCATION-(Daban Mines ,Ratadiya Mines,Naredi Mines,Mothalaa Balachod Mines, ) (DCR PV module only)                      Supply,                      Installation, Testing &amp; Commissioning of following size of Grid Tied Solar Power Plant with Solar Panels (ALMM approved): Frame Material : Anodized Aluminum alloy Frame With Twin Wall Profile, Front Solar Panels (ALMM approved): Frame Material : Anodized Aluminum alloy Frame With Twin Wall Profile, Front Cover : High Transmission Low-Iron Tempered Glass (AR Coated), High efficiency and positive power tolerance Pmax: 0/+5,Module Efficiency should be approx. 18%-21%, Normal operating temperature 45°C, Junction Box with Waterproof IP67 &amp; MC4 Compatible and Enclosed with Bypass diodes, 100% Electroluminescence test to ensure error free Modules, Thep. temp. co-efficient of the PV module shall equal or better than -0.45%/degree C. Solar PV modules of minimum fill factor 75% to be used. Unit Production:- 4 to 5 Unit /kw /day (Actual)(1Year Avg) With 10 year Product warranty and 25 year Linear Power Warranty.Solar Inverter: MPPT Range: 80-1000 V, Max efficiency: 97.5% - 98.9%, O/p Frequency: 50/60Hz, Operating Altitude (m) ≤4000, O/p Power Factor: ~1, O/P THDi: &lt;3%, Operating Tempreture Range: -25~60°C, Anti-islanding Protection: Integrated, Input Reverse Polarity Protection Integrated, Insulation Resistor Detection Integrated, Residual Current Monitoring Unit Integrated, Output Over Current Protection Integrated, Output Short Circuit Protection Integrated, Output Over Voltage Protection Integrated, Protection Degree: IP65, User Interface LCD &amp; APP .Datalogger &amp; communication:-GPRS /Wi-fi ,solar panel mounting,the structure should be suitable for carry the load of solar panel ,wiring etc.with necessary wall mount,j bolt,anchor fastner etc.the nut bolt used for installtion of structure should be(SS 304) quality and balance of system with necessary swithgear(suitable size and protection of ACDB &amp; DCDB),inter connecting wiring,earting system,lightining arr rester system,Panel Auto Cleaning System with 1 HP motar (Total-06 Nos Motor) and Bidirctional Meter to solar plant aluminium armoured cable connectivity ( cable size 4Corex 25sq mm above ,Distance approx 1200 meter with excavation :-0.60*0.75 meter) (Total -06 Nos System cable) all liasoning work with various gov.department like state nodal agency Discom ,CEIG Total 06 Nos System Bidirectional Meter is included in agency scope.(including Energy Meter Protection Box made of T transparent Acrylic Sheet,GEDA application fees,solar connectivity charge,meter connectivity charge,Cable ,meter testing charges.).Providing and sealing joints between adjoining plates by applying minimum 40 mm wide self-adhesive aluminium foil tape and UL 746C certified silicone sealant at top surface of joints to make the parking shed roofing system watertight against rainwater and wash water seepage, complete as directed by Engineer-in-Charge.No water seepage will occur during the cleaning of the solar panels or during the monsoon period.all materials, loading, unloading, transportation, placing at all floors and for all leads, at all floors, all levels, all heights and all shapes, all accessorie, protectiion sheet etc. work complete as per the detailed drawing, approved sample and</p>	44.00	per KW		

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5	MR	Fabricated work: Providing Fabrication & erection of Steelstructure as per drawings including materials, consisting of plates, rolled Steel joists, channels, angles, chequered plates etc and also rectangular / square hollow Steel sections, insert plates in RCC/Brickwork, anchor bolts for Steel structure, sleeve pipes, anchor nuts, washers etc, straightening of raw steel if required, fabrication of steel structures with primer of zinc oxide and minimum two coats of anti corrosive matt finish paint including preparation of supplementary sketches and detailed bill of materials supply of bolts, nuts, washers, shims, packs, putty. gas, welding electrodes and all other consumables, as required and carrying out surface preparation all complete. The scope includes loading, transportation ,unloading and delivery and erection site of all fabricated structures,, alignment and welding of all structures true to line, level, plumb and dimension, including rectification if any, splicing, site assembly all as per technical specifications and drawings, ,all complete. Contactor shall provide stability certificate for the fabrication structure. Rate inclusive of shop drawing. work completed including mock up sample, all materials, loading, unloading, transportation, placing at all floors and for all leads, at all floors, all levels, all heights and all shapes, all accessorie, protection sheet etc. work complete as per the detailed drawing, approved sample and instruction of Architect/EIC.	3663.79	Kg		
6	22014	Providing erecting and fixing double coated ISI water tank of 1000 lit capacity each with all necessary fittings and connection etc. complete on terrace and plumbing between tank side to plant locations.Providing, supplying and erecting 1000 litre capacity double coated ISI water tank. The item shall also include providing, laying, fixing and connecting PVC pipeline of suitable diameter from the water storage tank to the existing solar panel cleaning system, including all fittings, bends, tees, reducers, unions, valves, clamps, supports, flexible connections and other accessories required for complete functioning of the system. The work shall include cutting, threading, jointing, testing for leakage, commissioning, transportation, lifting at height, labour, tools and tackles and all incidental works complete as directed by the Engineer-in-Charge.	6.00	No.		
7	05014D	Providing TMT Bar FE FE 550D reinforcement for R.C.C. work including bending, binding and placing in position complete upto floor two levelIncluding mock up sample, all materials, loading, unloading, transportation, placing at all floors and for all leads, at all floors, all levels, all heights and all shapes, all accessorie, protection sheet etc. work complete as per the detailed drawing, approved sample and instruction of Architect/EIC.	299.57	Kg		
8	05024AA	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (A) Foundations, footings, Base of columns and Mass concrete all materials, loading, unloading, transportation, placing at all floors and for all leads, at all floors, all levels, all heights and all shapes, all accessorie, protection sheet etc. work complete as per the detailed drawing, approved sample and instruction of Architect/EIC. Sample mock shall be approved from Architect/EIC.(minimum cement consumption 300-320 Kg/cmt)	5.32	cumt		