

**REHABILITATION & SOLARIZATION OF EXISTING DRINKING WATER SUPPLY SCHEMES  
UNDER KP-RIISP**

**Rehabilitation of Existing Non - Functional Drinking Water Supply Schemes Old Hospital  
Khar, Civil Colony Khar, Kandaro Utman Khel, Dabdabo Khar, Ghani Adai Khar, Shinkai  
Alizai Khar, Bandagai Shukrata Utman Khel, District Bajaur**

**Contract Package : BJ-SW-R-02**

**SUMMARY OF COST**

<b>Sr.No</b>	<b>Name of Scheme</b>	<b>Amount (Rs.)</b>
1	DWSS Old Hospital Khar	
2	DWSS Civil Colony Khar	
3	DWSS Kandaro Utman Khel	
4	DWSS Dabdabo Khar	
5	DWSS Ghani Adai Khar	
6	DWSS Shinkai Alizai Khar	
7	DWSS Bandagai Shukrata Utman Khel	
8	E&S Compliance	
	<b>Total Cost (Rs.)</b>	

**REHABILITATION & SOLARIZATION OF EXISTING DRINKING WATER SUPPLY SCHEMES UNDER KP-RIISP**

Rehabilitation of Existing Non - Functional Drinking Water Supply Schemes Old Hospital Khar, Civil Colony Khar, Kandaro Utman Khel, Dabdabo Khar, Ghani Aday Khar, Shinkai Alizai Khar, Bandagai Shukrata Utman Khel, District Bajaur

Contract Package : BJ-SW-R-02 ( Old Hospital Khar )

**BILL OF QUANTITIES**

**SOLAR PUMPING MACHINERY WITH FIXED STRUCTURE**

**Sr No:1. INSTALLATION OF SOLAR SYSTEM**

S.No	MRS 2025 B-I	Description	Unit	Quantity	Unit Rate (PKRs)		Amount (Rs)
					In Figure	In Words	
		<b>Discharge(IGPH)</b>		<b>4500</b>			
		<b>Head feet</b>		<b>580</b>			
		<b>Pump Setting feet</b>		<b>220</b>			
<b>Schedule Items</b>							
<b>Solar Panel with allied accessories</b>							
1	26-01-d-01	Supply and Erection of A-Grade Solar PV Modules containing N-Type Mono-crystalline silicon A-Grade solar cells, As per approved specifications.	watt	29137.00			
2	26-01-m-01	Supply & Erection of elevated structure of hot dipped (80 microns Average) G.I Sheet Channel, angle as per design. including Stainless Steel Nuts & Bolts/washers	KG	1125.00			
3	26-02-a-11	Supply and Installation of DC Circuit breaker 2P - MCB Type	No	3.00			
4	26-02-a-03	Supply and Installation of AC Circuit Breaker 4P - MCB Type	No	1.00			
5	24-30-a-04	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE) Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (75 mm dia) PN-8	Meter	200.00			
6	03-09-b	Earth excavation in open cut upto 3 m depth for drains, pipes etc & disposal : in Hard Soil	m3	9.20			
7	26-01-g-03	Supply and Erection 1x6 sq.mm single core (XPLE/XPLO insulated/PCV sheathed) flexible copper cable	Meter	360.00			
8	06-05-f	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	m3	8.41			
<b>Solar Pumping Inverter with allied accessories</b>							
9	26-01-i-03-f	Supply and Erection of 3 phase 380V Solar Pump inverter (MPPT) 22 KW	No	1.00			
10	26-01-j-02	Supply and Erection of dV /dT or Sine Filters 22 KW to 45 KW	No	1.00			
<b>Solar Pumping Machinery with allied accessories</b>							
11	24-91-e	Supply & Installation, testing and commissioning of Submersible Pump (ISO - 9906 Certified) coupled with Submersible rewind-able Electric Motor with AC winding for discharge greater than 3000 IGPH and output capacity greater than 10 WHP and upto 15 WHP (As per Approved Technical Specifications)	WHP	13.18			
12	24-56-c	Supply and Fixing MS Column pipe with flanges for sub,erssible pump : 2.5" ( 63 mm) Nominal Pipe Size (NPS), 3/16" thick, 10' length	Meter	70.12			
13	24-50-c-01	Supply and installation of Submersible Flat Cable made of 99.9% copper, coated with double PVC as per BSS Standards, 4x10 mm2	Meter	89.43			
14	24-30-b-01	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE) Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (20mm dia) PN-10	Meter	73.17			
15	14-176	Providing and fixing sluice valve of BSS quality (BS 5163) and weight Class 'B' for Cast Iron & AC pipe line (including cost of jointing material):- a) 2.5" (63 mm) dia of Valve	Each	2.00			
<b>Solar Lightening System</b>							
16	26-01-d-01	Supply and Erection of Solar PV Module (Solar Panel) Mono-crystalline A-Grade with 25 Years Power Output Warranty Lates IEC 2016 Codes, (per Watt) (As per Approved Specifications)	Watt	600.00			
17	26-01-m-01	Supply and Erection of hot dipped (80 microns Average) galvanized steel of minimum thickness of 12 SWG / 2.64 mm Channel / Pipe or 8 SWG / 4.06 mm Angle	KG	36.00			
18	26-01-o	Supply and Erection of BOX / STAND for Batteries SHS Inverter & Charge Controller	Watt	600.00			

**REHABILITATION & SOLARIZATION OF EXISTING DRINKING WATER SUPPLY SCHEMES UNDER KP-RIISP**

Rehabilitation of Existing Non - Functional Drinking Water Supply Schemes Old Hospital Khar, Civil Colony Khar, Kandaro Utman Khel, Dabdabo Khar, Ghani Adai Khar, Shinkai Alizai Khar, Bandagai Shukrata Utman Khel, District Bajaur

Contract Package : BJ-SW-R-02 ( Old Hospital Khar )

**BILL OF QUANTITIES**

**SOLAR PUMPING MACHINERY WITH FIXED STRUCTURE**

**Sr No:1. INSTALLATION OF SOLAR SYSTEM**

S.No	MRS 2025 B-I	Description	Unit	Quantity	Unit Rate (PKRs)		Amount (Rs)
					In Figure	In Words	
19	26-01-e-12	Supply and Installation of SOLAR MPPT CHARGE CONTROLLER (FOR SOLAR DC SYSTEM, 45A (12V/24V)	No	1.00			
20	26-01-g-01	Supply and Erection 1x2.5 sq.mm flexible copper cable	Meter	54.86			
21	26-01-b-01	Supply and Erection PVC flexible pipe : 1" i/d	Meter	7.62			
22	26-01-l-02	Supply and Erection of DC CEILING FANS 48 inch 30-36 W	No	1.00			
23	26-01-f-07	Supply and Erection Lithium LiFeP04 battery 100 AH 12V 6000 cycles	No	2.00			
<b>Earthing/Grounding with Allied Accesories</b>							
24	26-02-e-01	Supply and Installation of Copper Rod/ Plate with copper clamps	KG	3.00			
25	26-02-e-02	Supply and Installation of Earthing Chemical	KG	14.00			
26	26-02-b-07	Supply and Installation of DC surge protection device 2P 1000VDC, In = 20kA & I <sub>max</sub> = 40kA	No	3.00			
27	26-01-n-01	Supply and Erection of Copper Conductor of 10 AWG	meter	45.00			
28	03-09-b	Earth excavation in open cut upto 3 m depth for drains, pipes etc & disposal : in Hard Soil	m3	1.36			
							<b>Total Amount Rs. (S.I)</b>
							<b>Add 8% Area Factor</b>
							<b>Grand Total Amount Rs.</b>
<b>Non Schedule Items</b>							
29	NSI	Providing and Fixing of Reflux valves/Non return valve (NRV) of BSS quality (BS 5163) for GI, PVC, MS , HDPE and also for all type of pipes i/c rubber sheet , jointing material complete in all respect 2.5" 63 mm) dia of Valve complete in all respects.	Each	1.00			
30	NSI	Providing and Fixing of MS Bend Pipe along with Top set contain MS pipe for testing and fixing of Psi Guage, 02 Nos Sluice valves & 01 No NRV Valve complete in all respects 2.5 Inch " (63") dia	Each	1.00			
31	NSI	DC Flood Lighting 30W, 12V/24V, IP 65	Job	2.00			
32	NSI	Combiner Box Hot Dipped Galvanized avg 80 Micron 18 SWG 12"x18 " with bus bar for earthing connectivity complete in all respects	Job	1.00			
33	NSI	DC phone charger and 02 Nos LED Lights 10W	Job	1.00			
							<b>Total Amount Rs. (N.S.I)</b>
							<b>Grand Total Amount Rs. (S.I+N.S.I)</b>

**REHABILITATION & SOLARIZATION OF EXISTING DRINKING WATER SUPPLY SCHEMES UNDER KP-RIISP**

**Rehabilitation of Existing Non - Functional Drinking Water Supply Schemes Old Hospital Khar, Civil Colony Khar, Kandaro Utman Khel, Dabdabo Khar, Ghani Adai Khar, Shinkai Alizai Khar, Bandagai Shukrata Utman Khel, District Bajaur**

**Contract Package : BJ-SW-R-02 ( Civil Colony Khar )**

**BILL OF QUANTITIES**

**Sr No.2. UPGRADATION OF SOLAR SYSTEM**

S.No	MRS 2025 B-I	Description	Unit	Quantity	Unit Rate (PKRs)		Amount (Rs)
					In Figure	In Words	
<b>Schedule Items</b>							
1	24-91-d	Supply & Installation, testing and commissioning of Submersible Pump (ISO - 9906 Certified) coupled with Submersible rewind-able Electric Motor with AC winding for discharge greater than 3000 IGPH and output capacity greater than 10 WHP and upto 15 WHP (As per Approved Technical Specifications)	WHP	8.08			
2	26-01-d-01	Supply and Erection of A-Grade Solar PV Modules containing N-Type Mono-crystalline silicon A-Grade solar cells, As per approved specifications.	P.Watt	7670			
3	24-56-b	Supply and Fixing MS Column pipe with flanges for sub,erssible pump : 3" ( 75 mm) Nominal Pipe Size (NPS), 3/16" thick, 10' length	Meter	76.00			
4	24-50-c-02	Supply and installation of Submersible Flat Cable made of 99.9% copper, coated with double PVC as per BSS Standards, 4x16 mm2	Meter	89.00			
5	26-01-m-01	Supply & Erection of elevated structure of hot dipped (80 microns Average) G.I Sheet Channel, angle as per design. including Stainless Steel Nuts & Bolts/washers	KG	250.00			
6	26-01-g-03	Supply and Erection 1x6 sq.mm single core (XPLE/XPLO insulated/PCV sheathed) flexible copper cable	Meter	180.00			
7	06-05-f	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	Cum	0.81			
8	26-01-i-03-d	Supply and Erection of 3 phase 380V Solar Pump inverter (MPPT) 15 KW	Each	1.00			
9	26-02-a-11	Supply and Installation of DC Circuit breaker 2P - MCB Type	No	1			
<b>Total Amount Rs. (S.I)</b>							
<b>Add 8% Area Factor</b>							
<b>Grand Total Amount Rs.</b>							

**REHABILITATION & SOLARIZATION OF EXISTING DRINKING WATER SUPPLY SCHEMES UNDER KP-RIISP**

**Rehabilitation of Existing Non - Functional Drinking Water Supply Schemes Old Hospital Khar, Civil Colony Khar, Kandaro Utman Khel, Dabdabo Khar, Ghani Adai Khar, Shinkai Alizai Khar, Bandagai Shukrata Utman Khel, District Bajaur**

**Contract Package : BJ-SW-R-02 ( Kandaro Utman Khel )**

**BILL OF QUANTITIES**

**Sr No: 3. UPGRADATION OF SOLAR SYSTEM**

S.No	MRS 2025 B-I	Description	Unit	Quantity	Unit Rate (PKRs)		Amount (Rs)
					In Figure	In Words	
<b>Schedule Items</b>							
1	24-91-d	Supply & Installation, testing and commissioning of Submersible Pump (ISO - 9906 Certified) coupled with Submersible rewindable Electric Motor with AC winding for discharge greater than 3000 IGPH and output capacity greater than 6 WHP and upto 10 WHP (As per Approved Technical Specifications)	WHP	8.89			
2	26-01-d-01	Supply and Erection of A-Grade Solar PV Modules containing N-Type Mono-crystalline silicon A-Grade solar cells, As per approved specifications.	P.Watt	8260			
3	26-01-i-03-c	Supply and Erection of 3 phase 380V Solar Pump inverter (MPPT) 15 KW	Each	1.00			
4	24-50-c-01	Supply and installation of Submersible Flat Cable made of 99.9% copper, coated with double PVC as per BSS Standards, 4x10 mm <sup>2</sup>	Meter	89.00			
5	26-01-m-01	Supply & Erection of elevated structure of hot dipped (80 microns Average) G.I Sheet Channel, angle as per design. including Stainless Steel Nuts & Bolts/washers	KG	278.00			
6	26-01-g-03	Supply and Erection 1x6 sq.mm single core (XPLE/XPLO insulated/PCV sheathed) flexible copper cable	Meter	180.00			
7	06-05-f	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	Cum	1.33			
8	26-02-a-11	Supply and Installation of DC Circuit breaker 2P - MCB Type	No	1.00			
<b>Sub Total Rs.</b>							
<b>Add 8% Area Factor</b>							
<b>Grand Total Amount Rs.</b>							

**REHABILITATION & SOLARIZATION OF EXISTING DRINKING WATER SUPPLY SCHEMES UNDER KP-RIISP**

Rehabilitation of Existing Non - Functional Drinking Water Supply Schemes Old Hospital Khar, Civil Colony Khar, Kandaro Utman Khel, Dabdabo Khar, Ghani Adai Khar, Shinkai Alizai Khar, Bandagai Shukrata Utman Khel, District Bajaur

Contract Package : BJ-SW-R-02 ( Dabdabo Khar )

**BILL OF QUANTITIES**

**SOLAR PUMPING MACHINERY WITH FIXED STRUCTURE**

**Sr No: 4 INSTALLATION OF SOLAR SYSTEM**

S.No	MRS 2025 B-I	Description	Unit	Quantity	Unit Rate (PKRs)		Amount (Rs)
					In Figure	In Words	
		<b>Discharge(IGPH)</b>		<b>2000</b>			
		<b>Head feet</b>		<b>440</b>			
		<b>Pump Setting feet</b>		<b>160</b>			
<b>Schedule Items</b>							
<b>Solar Panel with allied accessories</b>							
1	26-01-d-01	Supply and Erection of A-Grade Solar PV Modules containing N-Type Mono-crystalline silicon A-Grade solar cells, As per approved specifications.	watt	11051.00			
2	26-01-m-01	Supply & Erection of elevated structure of hot dipped (80 microns Average) G.I Sheet Channel, angle as per design. including Stainless Steel Nuts & Bolts/washers	KG	340.00			
3	26-02-a-11	Supply and Installation of DC Circuit breaker 2P - MCB Type	No	1.00			
4	26-02-a-03	Supply and Installation of AC Circuit Breaker 4P - MCB Type	No	1.00			
5	24-30-a-04	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE) Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (75 mm dia) PN-8	Meter	60.96			
6	03-09-b	Earth excavation in open cut upto 3 m depth for drains, pipes etc & disposal : in Hard Soil	m3	12.74			
7	26-01-g-03	Supply and Erection 1x6 sq.mm single core (XPLE/XPLO insulated/PCV sheathed) flexible copper cable	Meter	180.00			
8	06-05-f	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	m3	3.06			
<b>Solar Pumping Inverter with allied accessories</b>							
9	26-01-i-02	Supply and Erection of 3 phase 380V Solar Pump inverter (MPPT) 7.5 KW	No	1.00			
10	26-01-j-01	Supply and Erection of dV /dT or Sine Filters 11 KW to 18.5 KW	No	1.00			
<b>Solar Pumping Machinery with allied accessories</b>							
11	24-90-c	Supply & Installation, testing and commissioning of Submersible Pump (ISO - 9906 Certified) coupled with Submersible rewind-able Electric Motor with AC winding for discharge less than or equal to 3000 IGPH and output capacity greater than 3 WHP and upto 6 WHP (As per Approved Technical Specifications)	WHP	4.44			
12	24-56-c	Supply and Fixing MS Column pipe with flanges for sub,erssible pump : 2.5" ( 63 mm) Nominal Pipe Size (NPS), 3/16" thick, 10' length	Meter	51.83			
13	24-50-c-01	Supply and installation of Submersible Flat Cable made of 99.9% copper, coated with double PVC as per BSS Standards, 4x10 mm2	Meter	65.04			
14	24-30-b-01	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE) Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (20mm dia) PN-10	Meter	54.86			
15	14-176	Providing and fixing sluice valve of BSS quality (BS 5163) and weight Class 'B' for Cast Iron & AC pipe line (including cost of jointing material):- a) 2.5" (75 mm) dia of Valve	Each	2.00			
<b>Solar Lightening System</b>							
16	26-01-d-01	Supply and Erection of Solar PV Module (Solar Panel) Mono-crystalline A-Grade with 25 Years Power Output Warranty Lates IEC 2016 Codes, (per Watt) (As per Approved Specifications)	Watt	600.00			

**REHABILITATION & SOLARIZATION OF EXISTING DRINKING WATER SUPPLY SCHEMES UNDER KP-RIISP**

Rehabilitation of Existing Non - Functional Drinking Water Supply Schemes Old Hospital Khar, Civil Colony Khar, Kandaro Utman Khel, Dabdabo Khar, Ghani Adai Khar, Shinkai Alizai Khar, Bandagai Shukrata Utman Khel, District Bajaur

Contract Package : BJ-SW-R-02 ( Dabdabo Khar )

**BILL OF QUANTITIES**

**SOLAR PUMPING MACHINERY WITH FIXED STRUCTURE**

**Sr No: 4 INSTALLATION OF SOLAR SYSTEM**

S.No	MRS 2025 B-I	Description	Unit	Quantity	Unit Rate (PKRs)		Amount (Rs)
					In Figure	In Words	
17	26-01-m-01	Supply & Erection of elevated structure of hot dipped (80 microns Average) G.I Sheet Channel, angle as per design. including Stainless Steel Nuts & Bolts/washers	KG	36.00			
18	26-01-o	Supply and Erection of BOX / STAND for Batteries SHS Inverter & Charge Controller	Watt	600.00			
19	26-01-e-12	Supply and Installation of SOLAR MPPT CHARGE CONTROLLER (FOR SOLAR DC SYSTEM, 45A (12V/24V)	No	1.00			
20	26-01-g-01	Supply and Erection 1x2.5 sq.mm flexible copper cable	Meter	54.86			
21	26-01-b-01	Supply and Erection PVC flexible pipe : 1" i/d	Meter	7.62			
22	26-01-l-02	Supply and Erection of DC CEILING FANS 48 inch 30-36 W	No	1.00			
23	26-01-f-07	Supply and Erection Lithium LiFeP04 battery 100 AH 12V 6000 cycles	No	2.00			
<b>Earthing/Grounding with Allied Accesories</b>							
24	26-02-e-01	Supply and Installation of Copper Rod/ Plate with copper clamps	KG	3.00			
25	26-02-e-02	Supply and Installation of Earthing Chemical	KG	14.00			
26	26-02-b-07	Supply and Installation of DC surge protection device 2P 1000VDC, In = 20kA & I <sub>max</sub> = 40kA	No	1.00			
27	26-01-n-01	Supply and Erection of Copper Conductor of 10 AWG	meter	45.00			
28	03-09-b	Earth excavation in open cut upto 3 m depth for drains, pipes etc & disposal : in Hard Soil	m <sup>3</sup>	1.36			
							<b>Total Amount Rs. (S.I)</b>
							<b>Add 8% Area Factor</b>
							<b>Grand Total Amount Rs.</b>
<b>Non Schedule Items</b>							
29	NSI	Providing and Fixing of Reflux valves/Non return valve (NRV) of BSS quality (BS 5163) for GI, PVC, MS , HDPE and also for all type of pipes i/c rubber sheet , jointing material complete in all respect 2.5" 63 mm) dia of Valve complete in all respects.	Each	1.00			
30	NSI	Providing and Fixing of MS Bend Pipe along with Top set contain MS pipe for testing and fixing of Psi Guage, 02 Nos Sluice valves & 01 No NRV Valve complete in all respects 2.5 Inch " (63") dia	Each	1.00			
31	NSI	DC Flood Lighting 30W, 12V/24V, IP 65	Job	2.00			
32	NSI	Combiner Box Hot Dipped Galvanized avg 80 Micron 18 SWG 12"x18 " with bus bar for earthing connectivity complete in all respects	Job	1.00			
33	NSI	DC phone charger and 02 Nos LED Lights 10W	Job	1.00			
							<b>Total Amount Rs. (N.S.I)</b>
							<b>Grand Total Amount Rs. (S.I+N.S.I)</b>

**REHABILITATION & SOLARIZATION OF EXISTING DRINKING WATER SUPPLY SCHEMES UNDER KP-RIISP**

Rehabilitation of Existing Non - Functional Drinking Water Supply Schemes Old Hospital Khar, Civil Colony Khar, Kandaro Utman Khel, Dabdabo Khar, Ghani Adai Khar, Shinkai Alizai Khar, Bandagai Shukrata Utman Khel, District Bajaur

Contract Package : BJ-SW-R-02 ( Ghani Adai Khar )

**BILL OF QUANTITIES**

**SOLAR PUMPING MACHINERY WITH FIXED STRUCTURE**

SrNO: 5. **INSTALLATION OF SOLAR SYSTEM**

S.No	MRS 2025 B-I	Description	Unit	Quantity	Unit Rate (PKRs)		Amount (Rs)
					In Figure	In Words	
		<b>Discharge(IGPH)</b>		<b>4000</b>			
		<b>Head feet</b>		<b>610</b>			
		<b>Pump Setting feet</b>		<b>270</b>			
<b>Schedule Items</b>							
<b>Solar Panel with allied accessories</b>							
1	26-01-d-01	Supply and Erection of A-Grade Solar PV Modules containing N-Type Mono-crystalline silicon A-Grade solar cells, As per approved specifications.	watt	30643.00			
2	26-01-m-01	Supply & Erection of elevated structure of hot dipped (80 microns Average) G.I Sheet Channel, angle as per design. including Stainless Steel Nuts & Bolts/washers	KG	965.00			
3	26-02-a-11	Supply and Installation of DC Circuit breaker 2P - MCB Type	No	3.00			
4	26-02-a-03	Supply and Installation of AC Circuit Breaker 4P - MCB Type	No	1.00			
5	24-30-a-04	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE) Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (75 mm dia) PN-8	Meter	61.57			
6	03-09-b	Earth excavation in open cut upto 3 m depth for drains, pipes etc & disposal : in Hard Soil	m3	12.10			
7	26-01-g-03	Supply and Erection 1x6 sq.mm single core (XPLE/XPLO insulated/PCV sheathed) flexible copper cable	Meter	360.00			
8	06-05-f	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	Cum	8.86			
<b>Solar Pumping Inverter with allied accessories</b>							
9	26-01-i-03-f	Supply and Erection of 3 phase 380V Solar Pump inverter (MPPT) 22 KW	No	1.00			
10	26-01-j-02	Supply and Erection of dV /dT or Sine Filter or dV/dT filter 22 KW to 45 KW	No	1.00			
<b>Solar Pumping Macinery with allied accessories</b>							
11	24-91-e	Supply & Installation, testing and commissioning of Submersible Pump (ISO - 9906 Certified) coupled with Submersible rewind-able Electric Motor with AC winding for discharge greater than 3000 IGPH and output capacity greater than 10 WHP and upto 15 WHP (As per Approved Technical Specifications)	WHP	12.32			
12	24-56-c	Supply and Fixing MS Column pipe with flanges for sub,erssible pump : 2.5" ( 63 mm) Nominal Pipe Size (NPS), 3/16" thick, 10' length	Meter	85.37			
13	24-50-c-01	Supply and installation of Submersible Flat Cable made of 99.9% copper, coated with double PVC as per BSS Standards, 4x10 mm2	Meter	109.76			
14	24-30-b-01	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE) Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (20mm dia) PN-10	Rft	88.39			
15	14-176	Providing and fixing sluice valve of BSS quality (BS 5163) and weight Class 'B' for Cast Iron & AC pipe line (including cost of jointing material):- a) 2.5" (63 mm) dia of Valve	Each	2.00			

**REHABILITATION & SOLARIZATION OF EXISTING DRINKING WATER SUPPLY SCHEMES UNDER KP-RIISP**

Rehabilitation of Existing Non - Functional Drinking Water Supply Schemes Old Hospital Khar, Civil Colony Khar, Kandaro Utman Khel, Dabdabo Khar, Ghani Adai Khar, Shinkai Alizai Khar, Bandagai Shukrata Utman Khel, District Bajaur

Contract Package : BJ-SW-R-02 ( Ghani Adai Khar )

**BILL OF QUANTITIES**

**SOLAR PUMPING MACHINERY WITH FIXED STRUCTURE**

**SrNO: 5. INSTALLATION OF SOLAR SYSTEM**

S.No	MRS 2025 B-I	Description	Unit	Quantity	Unit Rate (PKRs)		Amount (Rs)
					In Figure	In Words	
<b>Solar Lightening System</b>							
16	26-01-d-01	Supply and Erection of Solar PV Module (Solar Panel) Mono-crystalline A-Grade with 25 Years Power Output Warranty Lates IEC 2016 Codes, (per Watt) (As per Approved Specifications)	Watt	600.00			
17	26-01-m-01	Supply & Erection of elevated structure of hot dipped (80 microns Average) G.I Sheet Channel, angle as per design. including Stainless Steel Nuts & Bolts/washers	KG	36.00			
18	26-01-o	Supply and Erection of BOX / STAND for Batteries SHS Inverter & Charge Controller	Watt	600.00			
19	26-01-e-12	Supply and Installation of SOLAR MPPT CHARGE CONTROLLER (FOR SOLAR DC SYSTEM, 45A (12V/24V)	No	1.00			
20	26-01-g-01	Supply and Erection 1x2.5 sq.mm flexible copper cable	Meter	54.86			
21	26-01-b-01	Supply and Erection PVC flexible pipe : 1" i/d	Meter	7.62			
22	26-01-l-02	Supply and Erection of DC CEILING FANS 48 inch 30-36 W	No	1.00			
23	26-01-f-07	Supply and Erection Lithium LiFeP04 battery 100 AH 12V 6000 cycles	No	2.00			
<b>Earthing/Grounding with Allied Accesories</b>							
24	26-02-e-01	Supply and Installation of Copper Rod/ Plate with copper clamps	KG	3.00			
25	26-02-e-02	Supply and Installation of Earthing Chemical	KG	14.00			
26	26-02-b-07	Supply and Installation of DC surge protection device 2P 1000VDC, In = 20kA & I <sub>max</sub> = 40kA	No	3.00			
27	26-01-n-01	Supply and Erection of Copper Conductor of 10 AWG	meter	45.00			
28	03-09-b	Earth excavation in open cut upto 3 m depth for drains, pipes etc & disposal : in Hard Soil	m3	1.29			
<b>Total Amount Rs. (S.I)</b>							
<b>Add 8% Area Factor</b>							
<b>Grand Total Amount Rs.</b>							
<b>Non Schedule Items</b>							
29	NSI	Providing and Fixing of Reflux valves/Non return valve (NRV) of BSS quality (BS 5163) for GI, PVC, MS , HDPE and also for all type of pipes i/c rubber sheet , jointing material complete in all respect 2.5" 63 mm) dia of Valve complete in all respects.	Each	1.00			
30	NSI	Providing and Fixing of MS Bend Pipe along with Top set contain MS pipe for testing and fixing of Psi Guage, 02 Nos Sluice valves & 01 No NRV Valve complete in all respects 2.5 Inch " (63") dia	Each	1.00			
31	NSI	DC Flood Lighting 30W, 12V/24V, IP 65	Job	2.00			
32	NSI	Combiner Box Hot Dipped Galvanized avg 80 Micron 18 SWG 12"x18 " with bus bar for earthing connectivity complete in all respects	Job	1.00			
33	NSI	DC phone charger and 02 Nos LED Lights 10W	Job	1.00			
<b>Total Amount Rs. (N.S.I)</b>							
<b>Grand Total Amount Rs. (S.I+N.S.I)</b>							

**REHABILITATION & SOLARIZATION OF EXISTING DRINKING WATER SUPPLY SCHEMES UNDER KP-RIISP**

**Rehabilitation of Existing Non - Functional Drinking Water Supply Schemes Old Hospital Khar, Civil Colony Khar, Kandaro Utman Khel, Dabdabo Khar, Ghani Adai Khar, Shinkai Alizai Khar, Bandagai Shukrata Utman Khel, District Bajaur**

**Contract Package : BJ-SW-R-02 ( Shinkai Alizai Khar )**

**BILL OF QUANTITIES**

**SOLAR PUMPING MACHINERY WITH FIXED STRUCTURE**

**Sr No: 6. INSTALLATION OF SOLAR SYSTEM**

S.No	MRS 2025 B-I	Description	Unit	Quantity	Unit Rate (PKRs)		Amount (Rs)
					In Figure	In Words	
Discharge(IGPH)		3400					
Head feet		400					
Pump Setting feet		220					
<b>Schedule Items</b>							
<b>Solar Panel with allied accessories</b>							
1	26-01-d-01	Supply and Erection of A-Grade Solar PV Modules containing N-Type Mono-crystalline silicon A-Grade solar cells, As per approved specifications.	watt	17080.00			
2	26-01-m-01	Supply & Erection of elevated structure of hot dipped (80 microns Average) G.I Sheet Channel, angle as per design. including Stainless Steel Nuts & Bolts/washers	KG	595.00			
3	26-02-a-11	Supply and Installation of DC Circuit breaker 2P - MCB Type	No	2.00			
4	26-02-a-03	Supply and Installation of AC Circuit Breaker 4P - MCB Type	No	1.00			
5	24-30-a-04	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE) Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (75 mm dia) PN-8	Meter	55.06			
6	03-09-b	Earth excavation in open cut upto 3 m depth for drains, pipes etc & disposal : in Hard Soil	m3	12.74			
7	26-01-g-03	Supply and Erection 1x6 sq.mm single core (XPLE/XPLO insulated/PCV sheathed) flexible copper cable	Meter	180.00			
8	06-05-f	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	Cum	4.59			
<b>Solar Pumping Inverter with allied accessories</b>							
9	26-01-i-03-B	Supply and Erection of 3 phase 380V Solar Pump inverter (MPPT) 13 KW	No	1.00			
10	26-01-j-01	Supply and Erection of dV /dT or Sine Filter or dV/dT filter 11 KW to 18.5 KW	No	1.00			
<b>Solar Pumping Machinery with allied accessories</b>							
11	24-90-D	Supply & Installation, testing and commissioning of Submersible Pump (ISO - 9906 Certified) coupled with Submersible rewind-able Electric Motor with AC winding for discharge less than or equal to 3000 IGPH and output capacity greater than 6 WHP and upto 10 WHP (As per Approved Technical Specifications)	WHP	6.87			
12	24-56-c	Supply and Fixing MS Column pipe with flanges for sub,erssible pump : 2.5" ( 63 mm) Nominal Pipe Size (NPS), 3/16" thick, 10' length	Meter	70.12			
13	24-50-c-01	Supply and installation of Submersible Flat Cable made of 99.9% copper, coated with double PVC as per BSS Standards, 4x10 mm2	Meter	89.43			
14	24-30-b-01	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE) Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (20mm dia) PN-10	Meter	73.15			
15	14-176	Providing and fixing sluice valve of BSS quality (BS 5163) and weight Class 'B' for Cast Iron & AC pipe line (including cost of jointing material):- a) 2.5" (75 mm) dia of Valve	Each	2.00			
<b>Solar Lightening System</b>							

**REHABILITATION & SOLARIZATION OF EXISTING DRINKING WATER SUPPLY SCHEMES UNDER KP-RIISP**

**Rehabilitation of Existing Non - Functional Drinking Water Supply Schemes Old Hospital Khar, Civil Colony Khar, Kandaro Utman Khel, Dabdabo Khar, Ghani Adai Khar, Shinkai Alizai Khar, Bandagai Shukrata Utman Khel, District Bajaur**

**Contract Package : BJ-SW-R-02 ( Shinkai Alizai Khar )**

**BILL OF QUANTITIES**

**SOLAR PUMPING MACHINERY WITH FIXED STRUCTURE**

**Sr No: 6. INSTALLATION OF SOLAR SYSTEM**

S.No	MRS 2025 B-I	Description	Unit	Quantity	Unit Rate (PKRs)		Amount (Rs)
					In Figure	In Words	
16	26-01-d-01	Supply and Erection of Solar PV Module (Solar Panel) Mono-crystalline A-Grade with 25 Years Power Output Warranty Lates IEC 2016 Codes, (per Watt) (As per Approved Specifications)	Watt	600.00			
17	26-01-m-01	Supply and Erection of hot dipped (80 microns Average) galvanized steel of minimum thickness of 12 SWG / 2.64 mm Channel / Pipe or 8 SWG / 4.06 mm Angle	KG	36.00			
18	26-01-o	Supply and Erection of BOX / STAND for Batteries SHS Inverter & Charge Controller	Watt	600.00			
19	26-01-e-12	Supply and Installation of SOLAR MPPT CHARGE CONTROLLER (FOR SOLAR DC SYSTEM, 45A (12V/24V)	No	1.00			
20	26-01-g-01	Supply and Erection 1x2.5 sq.mm flexible copper cable	Meter	54.86			
21	26-01-b-01	Supply and Erection PVC flexible pipe : 1" i/d	Meter	7.62			
22	26-01-l-02	Supply and Erection of DC CEILING FANS 48 inch 30-36 W	No	1.00			
23	26-01-f-07	Supply and Erection Lithium LiFeP04 battery 100 AH 12V 6000 cycles	No	2.00			
<b>Earthing/Grounding with Allied Accesories</b>							
24	26-02-e-01	Supply and Installation of Copper Rod/ Plate with copper clamps	KG	3.00			
25	26-02-e-02	Supply and Installation of Earthing Chemical	KG	14.00			
26	26-02-b-07	Supply and Installation of DC surge protection device 2P 1000VDC, In = 20kA & I <sub>max</sub> = 40kA	No	2.00			
27	26-01-n-01	Supply and Erection of Copper Conductor of 10 AWG	meter	45.00			
28	03-09-b	Earth excavation in open cut upto 3 m depth for drains, pipes etc & disposal : in Hard Soil	m3	1.36			
							<b>Total Amount Rs. (S.I)</b>
							<b>Add 8% Area Factor</b>
							<b>Grand Total Amount Rs.</b>
<b>Non Schedule Items</b>							
29	NSI	Providing and Fixing of Reflux valves/Non return valve (NRV) of BSS quality (BS 5163) for GI, PVC, MS, HDPE and also for all type of pipes i/c rubber sheet, jointing material complete in all respect 2.5" 63 mm) dia of Valve complete in all respects.	Each	1.00			
30	NSI	Providing and Fixing of MS Bend Pipe along with Top set contain MS pipe for testing and fixing of Psi Guage, 02 Nos Sluice valves & 01 No NRV Valve complete in all respects 2.5 Inch " (63") dia	Each	1.00			
31	NSI	DC Flood Lighting 30W, 12V/24V, IP 65	Job	2.00			
32	NSI	Combiner Box Hot Dipped Galvanized avg 80 Micron 18 SWG 12"x18 " with bus bar for earthing connectivity complete in all respects	Job	1.00			
33	NSI	DC phone charger and 02 Nos LED Lights 10W	Job	1.00			
							<b>Total Amount Rs. (N.S.I)</b>
							<b>Grand Total Amount Rs. (S.I+N.S.I)</b>

**REHABILITATION & SOLARIZATION OF EXISTING DRINKING WATER SUPPLY SCHEMES UNDER KP-RIISP**

Rehabilitation of Existing Non - Functional Drinking Water Supply Schemes Old Hospital Khar, Civil Colony Khar, Kandaro Utman Khel, Dabdabo Khar, Ghani Adai Khar, Shinkai Alizai Khar, Bandagai Shukrata Utman Khel, District Bajaur

Contract Package : BJ-SW-R-02 ( Bandagai Shukrata Utman Khel )

**BILL OF QUANTITIES**

**SOLAR PUMPING MACHINERY WITH FIXED STRUCTURE**

**Sr No.7: INSTALLATION OF SOLAR SYSTEM**

S.No	MRS 2025 B-I	Description	Unit	Quantity	Unit Rate (PKRs)		Amount (Rs)
					In Figure	In Words	
		<b>Discharge(IGPH)</b>		<b>4500</b>			
		<b>Head feet</b>		<b>515</b>			
		<b>Pump Setting feet</b>		<b>125</b>			
<b>Schedule Items</b>							
<b>Solar Panel with allied accessories</b>							
1	26-01-d-01	Supply and Erection of A-Grade Solar PV Modules containing N-Type Mono-crystalline silicon A-Grade solar cells, As per approved specifications.	watt	29137.00			
2	26-01-m-01	Supply & Erection of elevated structure of hot dipped (80 microns Average) G.I Sheet Channel, angle as per design. including Stainless Steel Nuts & Bolts/washers	KG	1105.00			
3	26-02-a-11	Supply and Installation of DC Circuit breaker 2P - MCB Type	No	3.00			
4	26-02-a-03	Supply and Installation of AC Circuit Breaker 4P - MCB Type	No	1.00			
5	24-30-a-04	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE) Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (75 mm dia) PN-8	Meter	200.00			
6	03-09-b	Earth excavation in open cut upto 3 m depth for drains, pipes etc & disposal : in Hard Soil	m3	14.58			
7	26-01-g-03	Supply and Erection 1x6 sq.mm single core (XPLE/XPLO insulated/PCV sheathed) flexible copper cable	Meter	360.00			
8	06-05-f	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	m3	8.41			
<b>Solar Pumping Inverter with allied accessories</b>							
9	26-01-i-03-f	Supply and Erection of 3 phase 380V Solar Pump inverter (MPPT) 22 KW	No	1.00			
10	26-01-j-02	Supply and Erection of dV /dT or Sine Filters 22 KW to 45 KW	No	1.00			
<b>Solar Pumping Macinery with allied accessories</b>							
11	24-91-e	Supply & Installation, testing and commissioning of Submersible Pump (ISO - 9906 Certified) coupled with Submersible rewind-able Electric Motor with AC winding for discharge greater than 3000 iGPH and output capacity greater than 10 WHP and upto 15 WHP (As per Approved Technical Specifications)	WHP	11.70			
12	24-56-c	Supply and Fixing MS Column pipe with flanges for sub,erssible pump : 2.5" ( 63 mm) Nominal Pipe Size (NPS), 3/16" thick, 10' length	Meter	41.16			
13	24-50-c-01	Supply and installation of Submersible Flat Cable made of 99.9% copper, coated with double PVC as per BSS Standards, 4x10 mm2	Meter	50.81			
14	24-30-b-01	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE) Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (20mm dia) PN-10	Meter	44.21			
15	14-176	Providing and fixing sluice valve of BSS quality (BS 5163) and weight Class 'B' for Cast Iron & AC pipe line (including cost of jointing material):- a) 2.5" (63 mm) dia of Valve	Each	2.00			
<b>Solar Lightening System</b>							
16	26-01-d-01	Supply and Erection of Solar PV Module (Solar Panel) Mono-crystalline A-Grade with 25 Years Power Output Warranty Lates IEC 2016 Codes, (per Watt) (As per Approved Specifications)	Watt	600.00			
17	26-01-m-01	Supply and Erection of hot dipped (80 microns Average) galvanized steel of minimum thickness of 12 SWG / 2.64 mm Channel / Pipe or 8 SWG / 4.06 mm Angle	KG	36.00			
18	26-01-o	Supply and Erection of BOX / STAND for Batteries SHS Inverter & Charge Controller	Watt	600.00			

**REHABILITATION & SOLARIZATION OF EXISTING DRINKING WATER SUPPLY SCHEMES UNDER KP-RIISP**

Rehabilitation of Existing Non - Functional Drinking Water Supply Schemes Old Hospital Khar, Civil Colony Khar, Kandaro Utman Khel, Dabdabo Khar, Ghani Adai Khar, Shinkai Alizai Khar, Bandagai Shukrata Utman Khel, District Bajaur

Contract Package : BJ-SW-R-02 ( Bandagai Shukrata Utman Khel )

**BILL OF QUANTITIES**

**SOLAR PUMPING MACHINERY WITH FIXED STRUCTURE**

Sr No.7: **INSTALLATION OF SOLAR SYSTEM**

S.No	MRS 2025 B-I	Description	Unit	Quantity	Unit Rate (PKRs)		Amount (Rs)
					In Figure	In Words	
19	26-01-e-12	Supply and Installation of SOLAR MPPT CHARGE CONTROLLER (FOR SOLAR DC SYSTEM, 45A (12V/24V)	No	1.00			
20	26-01-g-01	Supply and Erection 1x2.5 sq.mm flexible copper cable	Meter	54.86			
21	26-01-b-01	Supply and Erection PVC flexible pipe : 1" i/d	Meter	7.62			
22	26-01-l-02	Supply and Erection of DC CEILING FANS 48 inch 30-36 W	No	1.00			
23	26-01-f-07	Supply and Erection Lithium LiFeP04 battery 100 AH 12V 6000 cycles	No	2.00			
<b>Earthing/Grounding with Allied Accesories</b>							
24	26-02-e-01	Supply and Installation of Copper Rod/ Plate with copper clamps	KG	3.00			
25	26-02-e-02	Supply and Installation of Earthing Chemical	KG	14.00			
26	26-02-b-07	Supply and Installation of DC surge protection device 2P 1000VDC, In = 20kA & Imax = 40kA	No	3.00			
27	26-01-n-01	Supply and Erection of Copper Conductor of 10 AWG	meter	45.00			
28	03-09-b	Earth excavation in open cut upto 3 m depth for drains, pipes etc & disposal : in Hard Soil	m3	1.36			
<b>Total Amount Rs. (S.I)</b>							
<b>Add 8% Area Factor</b>							
<b>Grand Total Amount Rs.</b>							
<b>Non Schedule Items</b>							
29	NSI	Providing and Fixing of Reflux valves/Non return valve (NRV) of BSS quality (BS 5163) for GI, PVC, MS , HDPE and also for all type of pipes i/c rubber sheet , jointing material complete in all respect 2.5" 63 mm) dia of Valve complete in all respects.	Each	1.00			
30	NSI	Providing and Fixing of MS Bend Pipe along with Top set contain MS pipe for testing and fixing of Psi Guage, 02 Nos Sluice valves & 01 No NRV Valve complete in all respects 2.5 Inch " (63" dia	Each	1.00			
31	NSI	DC Flood Lighting 30W, 12V/24V, IP 65	Job	2.00			
32	NSI	Combiner Box Hot Dipped Galvanized avg 80 Micron 18 SWG 12"x18 " with bus bar for earthing connectivity complete in all respects	Job	1.00			
33	NSI	DC phone charger and 02 Nos LED Lights 10W	Job	1.00			
<b>Total Amount Rs. (N.S.I)</b>							
<b>Grand Total Amount Rs. (S.I+N.S.I)</b>							

**REHABILITATION & SOLARIZATION OF EXISTING DRINKING WATER SUPPLY SCHEMES UNDER KP-RIISP**

**Rehabilitation of Existing Non - Functional Drinking Water Supply Schemes Old Hospital Khar, Civil Colony Khar, Kandaro Utman Khel, Dabdabo Khar, Ghani Adai Khar, Shinkai Alizai Khar, Bandagai Shukrata Utman Khel, District Bajaur**

**Contract Package : BJ-SW-R-02**

**BILL OF QUANTITIES**

**E&S COMPLIANCE COST**

Sr. No.	Description	Unit	Quantity	Unit Rate (PKRs)		Amount (Rs)
				In Figure	In Words	
1	Provision of green cloth, 4 colour waste bins (240 Liters), safety signages (including Grievance Redress Mechanism (GRM) details, Emergency contact numbers, PPEs requirements, First Aid / Fire Extinguisher placement, emergency exit etc), warning tape, necessary plastic and tarpulin sheet for covering of construction raw material on site and during transportation to the site	Each Site	7			
2	Handling of solid waste (storage, collection, transportation, utilization, and final disposal of solid wastes)	Each Site	7			
3	DCP Fire extinguishers (6 kg) in case of fire (The material of the cylinder is steel. The extinguishing agent is mono ammonium phosphate and ammonium sulfate powder and the discharge time of the agent is 13 seconds). Including the refilling of used chemical and replacement of expired chemical.	Each Site	7			
4	Fire alarm (Signal Transmission: Wired Alarm, Working Principle: Manual Alarm Button)		1			
5	Ear plugs (corded Reusable silicon Earplugs)	Each	163			
6	Safety Helmets (PE shell with vents Lining; material: Plastic Chin strap included; Adjust head size by ratchet knob)	Each	70			
7	Safety shoes (Renowned brand)	Each	35			
8	Protective goggles (Anti-fog, Anti scratch, Poly-carbonate Scratch and impact resistant, side protection sheet)	Each	35			
9	Gloves (made up of nylon, polyurethane with ironclad) and safety Vest	Each	35			
10	Dust Mask	Each	233			
11	First Aid Kit (pain killers, eyewash solution, antibiotic ointment, thermometer, plasters, sterile gauze dressings, sterile eye dressings, triangular bandages, crepe rolled bandages, safety pins, disposable sterile gloves and tweezers). Including the refilling of the contents and replacement of expired content.	Each site	7			
<b>Total Amount</b>						