Republic of Uganda

Ministry of Water and Environment

Electricity Access Scale Up Project (EASP)

Project ID: P166685

Supply, Installation and Commissioning of Solar Photovoltaic (PV) Energy Packages for Water Supply Schemes

Lot 3: Supply, Installation and Commissioning of 10 Solar Photovoltaic (PV) Energy Packages for Water Supply Schemes in Kasanje, Kyamulibwa, Kakyanga, Nabigasa-Lyabugumu, Ntungu, Isingiro TC, Rubaya, Kabura, Katuna, and Nyakashaka- Rubingo

Procurement Reference No: MWE/SUPLS/23-24/00007/3

Volume 2 - Price Schedules

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Electricity Access Scale Up Project (EASP)- Water Component

Lot 3: Supply, Installation and Commissioning of 10 Solar Photovoltaic (PV) Energy Packages for Water Supply Schemes in Kasanje, Kyamulibwa, Kakyanga, Nabigasa- Lyabugumu, Ntungu, Isingiro TC, Rubaya, Kabura, Katuna, and Nyakashaka- Rubingo

Schedule of Rates and Prices

Schedule No. 1. Plant and Mandatory Spare Parts Supplied from Abroad

Item	Description	Code[1]	Qty.	Unit	Unit Price[2]		Total Price[2]
						CIP	
			(1)		*(2)*	*(3)*	*(1) x (3)*
1	**Solar Array mounting frame**						
1.1	Solar Array mounting frame made from rust free/resistant aluminium metal supported by aluminium angle sections onto reinforced concrete base supplied and constructed to specifications. Special bolts and nuts with arren-keys shall be supplied for fastening modules, enhanced for theft-proof or spot welded as required by specifications for Kasanje water supply scheme		4	No	US Dollars		0.0
1.2	Solar Array mounting frame with specifications as in 1.1 - Kyamulibwa water supply scheme		2	No	US Dollars		0.0
1.3	Solar Array mounting frame with specifications as in 1.1 - Kakyanga water supply scheme		2	No	US Dollars		0.0
1.4	Solar Array mounting frame with specifications as in 1.1 - Nabigasa water supply scheme		2	No	US Dollars		0.0
1.5	Solar Array mounting frame with specifications as in 1.1 - Ntungu water supply scheme		5	No	US Dollars		0.0
1.6	Solar Array mounting frame with specifications as in 1.1 - Isingiro TC water supply scheme		3	No	US Dollars		0.0
1.7	Solar Array mounting frame with specifications as in 1.1 - Rubaya water supply scheme		2	No	US Dollars		0.0
1.8	Solar Array mounting frame with specifications as in 1.1 - Kabura water supply scheme		3	No	US Dollars		0.0
1.9	Solar Array mounting frame with specifications as in 1.1 - Katuna water supply scheme		3	No	US Dollars		0.0
1.10	Solar Array mounting frame with specifications as in 1.1 - Nyakashaka water supply scheme		3	No	US Dollars		0.0
2	**Solar Modules**						
2.1	Solar Modules-(Mono/ Poly-crystalline 295Wp Vmax=31.74V, Imax=9.29A, 25yr warranty >16% cell efficiency) configured using 650 VDC, 25 years warranty, with serial number and MWE-label embedded within encapsulation, with anodized aluminum frame; supplied and installed to specifications for Kasanje water scheme		80	No	US Dollars		0.0
2.2	Solar modules with specifcations as in 2.1 - Kyamulibwa water supply scheme		40	No	US Dollars		0.0
2.3	Solar modules with specifcations as in 2.1 - Kakyanga water supply scheme		40	No	US Dollars		0.0
2.4	Solar modules with specifcations as in 2.1 - Nabigasa water supply scheme		40	No	US Dollars		0.0
2.5	Solar modules with specifcations as in 2.1 - Ntungu water supply scheme		100	No	US Dollars		0.0
2.6	Solar modules with specifcations as in 2.1 - Isingiro TC water supply scheme		60	No	US Dollars		0.0
2.7	Solar modules with specifcations as in 2.1 - Rubaya water supply scheme		40	No	US Dollars		0.0
2.8	Solar modules with specifcations as in 2.1 - Kabura water supply scheme		60	No	US Dollars		0.0
2.9	Solar modules with specifcations as in 2.1 - Katuna water supply scheme		60	No	US Dollars		0.0
2.10	Solar modules with specifcations as in 2.1 - Nyakashaka water supply scheme		60	No	US Dollars		0.0
3	**Power Inverter & Pump Controller**						
3.1	15.0kW Power Inverter & Pump controller (Compatible with submersible pumps, surface pumps using induction motors) with pure sinewaye output at 98% efficiency at full-load, 650VDC/ 415VAC-variable speed drive with MPPT technology, 50Hz (Variable speed, +5hz selectable speed increase); Hybrid AC Power with solar priority; Built in remote monitor module; support multi linkage system; IP 65 full protection; Full automatic operation. 8 years storage capacity for operation data; with surge protection, overload, underload, pump dry-run and full-tank shutoff protection; supplied and installed to specifictions for Kasanje water scheme		1	No	US Dollars		0.0
3.2	7.5kW Power Inverter & Pump Controller with specifcations as in 3.1 - Kyamulibwa water supply scheme		1	No	US Dollars		0.0
3.3	7.5kW Power Inverter & Pump Controller with specifcations as in 3.1 - Kakyanga water supply scheme		1	No	US Dollars		0.0
3.4	7.5kW Power Inverter & Pump Controller with specifcations as in 3.1 - Nabigasa water supply scheme		1	No	US Dollars		0.0
3.5	22.0kW Power Inverter & Pump Controller with specifcations as in 3.1 - Ntungu water supply scheme		1	No	US Dollars		0.0
3.6	11.0kW Power Inverter & Pump Controller with specifcations as in 3.1 - Isingiro TC water supply scheme		1	No	US Dollars		0.0
3.7	7.5kW Power Inverter & Pump Controller with specifcations as in 3.1 - Rubaya water supply scheme		1	No	US Dollars		0.0
3.8	11.0kW Power Inverter & Pump Controller with specifcations as in 3.1 - Kabura water supply scheme		1	No	US Dollars		0.0
3.9	11.0kW Power Inverter & Pump Controller with specifcations as in 3.1 - Katuna water supply scheme		1	No	US Dollars		0.0
3.10	11.0kW Power Inverter & Pump Controller with specifcations as in 3.1 - Nyakashaka water supply scheme		1	No	US Dollars		0.0
4	**Water Pump**						
4.1	11kW water pump (Head 190m, yield=12.0m3/hr), multistage centrifugal submersible, 3-phase Induction motor, 380-400-415V, 50Hz variable speed motor, 0.77pf at rated current, with capacity to deliver as per design (flunge connection type) stainless steel casing, supplied and installed with dry-run protection and all accessories; supplied and installed to specifications for Kasanje water scheme		1	No	US Dollars		0.0
4.2	5.5kW water pump (Head=130m, yield=8.0m3/hr) with specifcations as in 4.1 - Kyamulibwa water supply scheme		1	No	US Dollars		0.0
4.3	4.0kW water pump (Head=100m, yield=10.0m3/hr) with specifcations as in 4.1 - Kakyanga water supply scheme		1	No	US Dollars		0.0
4.4	4.0kW water pump (Head=116 m, yield=8.0m3/hr) with specifcations as in 4.1 - Nabigasa water supply scheme		1	No	US Dollars		0.0
4.5	15.0kW water pump (Head 120m,yield 17.0m3/hr) with specifcations as in 4.1 - Ntungu water supply scheme		1	No	US Dollars		0.0
4.6	7.5kW water pump (Head=160m,yield=12.0m3/hr) with specifcations as in 4.1 - Isingiro TC water supply scheme		1	No	US Dollars		0.0
4.7	5.5kW water pump (Head=180m, yield=6.0m3/hr) with specifcations as in 4.1 - Rubaya water supply scheme		1	No	US Dollars		0.0
4.8	7.5kW water pump (Head=180m,yield=8.0m3/hr) with specifcations as in 4.1 - Kabura water supply scheme		1	No	US Dollars		0.0
4.9	7.5kW water pump (Head=130m,yield=12.0m3/hr) with specifcations as in 4.1 - Katuna water supply scheme		1	No	US Dollars		0.0
4.10	7.5kW water pump (Head=185m, yield=10.0m3/hr) with specifcations as in 4.1 - Nyakashaka water supply scheme		1	No	US Dollars		0.0
5	**Well head assembly** Drop pipes for water pump made from PE/ HDPE in accordance to the pump installation depth; Well head assembly structures; 2 flanged gate valves, Flanged Non-return valve, Flanged Air release valve, inclusive of remote monitoring sensors (Liquid Pressure Sensor, Liquid Level Sensor, flanged bulk digital elctronic Water Meter) for interconnection with exisiting transmission to tank and associated accessories done to specifications and to the satisfaction of the engineer; for all water schemes in Lot		10	No	US Dollars		0.0
6	**Remote Monitoring Unit** Data Monitors for GPRS remote monitoring & Bluetooth near field monitoring; IP 65 Protection grade; Ambient temperature (-25℃～+60℃); Integrated with 2G/4G communication module to implement solar pumping system remote monitoring & control. Supports in data collection of temperature, monitor water pressure, water level and water flow within water meter; for all water schemes in Lot		10	No	US Dollars		0.0
7	**Equipment & Tool set** Equipment & Tool set to be used by Scheme operator (Digital multimeter-rating 1000V, set of screw drivers, pliers, phase tester, Cable cutter, pliers, Hummer, set of Arren-keys, Insulating tape-10pcs, adjustable wrench) for all water schemes in Lot		10	No	US Dollars		0.0
8	**Spare parts for repairs and replacements** Spare parts for repairs and replacements parts. Attach a list of spare parts to be supplied within the contract as required by GCC.7.3 for all sites in Lot						
8.1	Solar Modules-(Mono/ Poly-crystalline 295Wp Vmax=31.74V, Imax=9.29A, 25yr warranty >16% cell efficiency) configured using 650 VDC, 25 years warranty, with serial number and MWE-label embedded within encapsulation, with anodized aluminum frame		40	No	US Dollars		0.0
8.2	PV-Disconnect Switch/ Minature Circuit breaker with total capacity of 10A, 650VDC.		250	No	US Dollars		0.0
8.3	6-11W/240VAC Lights		250	No	US Dollars		0.0
8.4	DC750V Fuses		250	No	US Dollars		0.0
8.5	Blocking diodes		250	No	US Dollars		0.0
	TOTAL (to Schedule No. 5. Grand Summary)						**0.0**

Name of Bidder	
Signature of Bidder	

[1] Bidders shall enter a code representing the country of origin of all imported plant and equipment.

[2] Specify currency. Create and use as many columns for Unit Price and Total Price as there are currencies.

Electricity Access Scale Up Project (EASP)- Water Component

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Schedule of Rates and Prices

Schedule No. 2. Plant and Mandatory Spare Parts Supplied from Within the Employer's Country

Item	Description	Qty (1)	Unit	EXW Unit Price[1] (UGX) (2)	Sales and other taxes payable per line item if Contract is awarded (in accordance with ITB 17.5 (b) (ii) (3)	EXW Total Price[1] (1)x(2)
1	**PV-Disconnect Switch/ Minature Circuit breaker**					
1.1	PV-Disconnect Switch/ Minature Circuit breaker with total capacity of 10A, 650VDC, to be installed at the terminating junction box of each panel, supplied to specifications for Kasanje water supply scheme	4	No			0.0
1.2	PV-Disconnect Switch with specifications as in 1.1 - Kyamulibwa water supply scheme	2	No			0.0
1.3	PV-Disconnect Switch with specifications as in 1.1 - Ulepi water supply scheme	2	No			0.0
1.4	PV-Disconnect Switch with specifications as in 1.1 - Inde water supply scheme	2	No			0.0
1.5	PV-Disconnect Switch with specifications as in 1.1 - Ntungu water supply scheme	5	No			0.0
1.6	PV-Disconnect Switch with specifications as in 1.1 - Isingiro TC water supply scheme	3	No			0.0
1.7	PV-Disconnect Switch with specifications as in 1.1 - Rubaya water supply scheme	2	No			0.0
1.8	PV-Disconnect Switch with specifications as in 1.1 - Kabura water supply scheme	3	No			0.0
1.9	PV-Disconnect Switch with specifications as in 1.1 - Katuna water supply scheme	3	No			0.0
1.10	PV-Disconnect Switch with specifications as in 1.1 - Nyakashaka water supply scheme	3	No			0.0
2	**Change-over switch**					
2.1	Change-over switch rated 60A 3-phase (TPN) 415V, manually operated and to be used for hybrid switching operation of Solar-PV system with Diesel generator system supplied to specifications for Kasanje water supply scheme	1	No			0.0
2.2	60A, 415V Change-over switch rated with specifications as in 2.1 - Kyamulibwa water supply scheme	1	No			0.0
2.3	60A, 415V Change-over switch rated with specifications as in 2.1 - Ulepi water supply scheme	1	No			0.0
2.4	60A, 415V Change-over switch rated with specifications as in 2.1 - Inde water supply scheme	1	No			0.0
2.5	80A, 415V Change-over switch rated with specifications as in 2.1 - Ntungu water supply scheme	1	No			0.0
2.6	60A, 415V Change-over switch rated with specifications as in 2.1 - Isingiro TC water supply scheme	1	No			0.0
2.7	60A, 415V Change-over switch rated with specifications as in 2.1 - Rubaya water supply scheme	1	No			0.0
2.8	60A, 415V Change-over switch rated with specifications as in 2.1 - Kabura water supply scheme	1	No			0.0
2.9	60A, 415V Change-over switch rated with specifications as in 2.1 - Katuna water supply scheme	1	No			0.0
2.10	60A, 415V Change-over switch rated with specifications as in 2.1 - Nyakashaka water supply scheme	1	No			0.0
3	**Assortment set of electrical cables**					
3.1	Assortment set of electrical cables, interconnects and accessories for complete system wiring, including where necessary, underground cables, wired in full-conduit technique; supplied and installed to specifications Kasanje water supply scheme	1	No			0.0
3.2	Assortment set of electrical cables with specifications as in 2.1 - Kyamulibwa water supply scheme	1	No			0.0
3.3	Assortment set of electrical cables with specifications as in 2.1 - Ulepi water supply scheme	1	No			0.0
3.4	Assortment set of electrical cables with specifications as in 2.1 - Inde water supply scheme	1	No			0.0
3.5	Assortment set of electrical cables with specifications as in 2.1 - Ntungu water supply scheme	1	No			0.0
3.6	Assortment set of electrical cables with specifications as in 2.1 - Isingiro TC water supply scheme	1	No			0.0
3.7	Assortment set of electrical cables with specifications as in 2.1 - Rubaya water supply scheme	1	No			0.0
3.8	Assortment set of electrical cables with specifications as in 2.1 - Kabura water supply scheme	1	No			0.0
3.9	Assortment set of electrical cables with specifications as in 2.1 - Katuna water supply scheme	1	No			0.0
3.10	Assortment set of electrical cables with specifications as in 2.1 - Nyakashaka water supply scheme	1	No			0.0
4	**System grounding** System grounding with equi-potential bonding to earth impedence lower than 5ohms; for all conducting parts within the installation including the inverter, array mounting frame, metal cabinets, and metal pipes supplied and installed to specifications for water supply schemes	10	No			0.0
5	**Lightenning Protection system**					
5.1	Lightenning Protection system set with spike, copper tape; including the lightening surge protection switch-gear at the main-junction box of solar array and AC-side of inverter; supplied and installed to specifications for Kasanje water supply scheme	2	No			0.0
5.2	Lightenning Protection system with specifications as in 2.1 - Kyamulibwa water supply scheme	1	No			0.0
5.3	Lightenning Protection system with specifications as in 2.1 - Kakyanga water supply scheme	1	No			0.0
5.4	Lightenning Protection system with specifications as in 2.1 - Nabigasa water supply scheme	1	No			0.0
5.5	Lightenning Protection system with specifications as in 2.1 - Ntungu water supply scheme	3	No			0.0
5.6	Lightenning Protection system with specifications as in 2.1 - Isingiro TC water supply scheme	2	No			0.0
5.7	Lightenning Protection system with specifications as in 2.1 - Rubaya water supply scheme	1	No			0.0
5.8	Lightenning Protection system with specifications as in 2.1 - Kabura water supply scheme	2	No			0.0
5.9	Lightenning Protection system with specifications as in 2.1 - Katuna water supply scheme	2	No			0.0
5.10	Lightenning Protection system with specifications as in 2.1 - Nyakashaka water supply scheme	2	No			0.0
6	**Auxilliary Solar-PV Lighting system** Auxiliary solar-PV lighting system featuring a 2x240Wp solar modules, 1x750Wp inverter, module mounting, 1x20A Regulator, 2x200Ah Battery, 6-11W/240VAC Lights, with switches, sockets, and lamp holders complete supplied and installed to specifications for all water schemes in Lot	10	No			0.0
7	**Alarm system** Alarm system set with siren for intrusion and safety protection of solar modules, where intrusion detection is based on mechanical vibrations/ tampering of the solar array structure, wired and integrated within the installation; complete with all accessories; for all water schemes in Lot	10	No			0.0
	TOTAL (to Schedule No. 5. Grand Summary)					**0.0**
					Name of Bidder	
					Signature of Bidder	

1 Specify currency in accordance with specifications in Bid Data Sheet under ITB 18.1

Electricity Access Scale Up Project (EASP)- Water Component

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Schedule of Rates and Prices

Schedule No. 3. Design Services

Item	Description	Qty. (1)	Unit	Unit Price[1]		Total Price[1] (1)x(2)
				Local Currency Portion (2)	Foreign Currency Portion (optional)	
1	**Design Services**					
1.1	Design services for Kasanje water supply scheme	1	lumpsum			0.0
1.2	Design services for Kyamulibwa water supply scheme	1	lumpsum			0.0
1.3	DDesign services for Kakyanga water supply scheme	1	lumpsum			0.0
1.4	Design services for Nabigasa water supply scheme	1	lumpsum			0.0
1.5	Design services for Ntungu water supply scheme	1	lumpsum			0.0
1.6	Design services for Isingiro TC water supply scheme	1	lumpsum			0.0
1.7	Design services for Rubaya water supply scheme	1	lumpsum			0.0
1.8	Design services for Kabura water supply scheme	1	lumpsum			0.0
1.9	Design services for Katuna water supply scheme	1	lumpsum			0.0
1.10	Design services for Nyakashaka water supply scheme	1	lumpsum			0.0
TOTAL (to Schedule No. 5. Grand Summary)						**0.0**
					Name of Bidder	
					Signature of Bidder	

Electricity Access Scale Up Project (EASP)- Water Component

Lot 3: Supply, Installation and Commissioning of 10 Solar Photovoltaic (PV) Energy Packages for Water Supply Schemes in Kasanje, Kyamulibwa, Kakyanga, Nabigasa- Lyabugumu, Ntungu, Isingiro TC, Rubaya, Kabura, Katuna, and Nyakashaka- Rubingo

Schedule of Rates and Prices

Schedule No. 4. Installation and Other Services

Item	Description	Qty. (1)	Unit	Unit Price[1]		Total Price[1]	
				Foreign Currency Portion (2)	Local Currency Portion (3)	Foreign (1)x(2)	Local (1)x(3)
1	**Contractual Requirements**						
1.1	Processing of Perfomance Security	1	No				0.0
1.2	Processing of Advance Payment Guarantee	1	No				0.0
1.3	Processing of Contractor's All Risk Insurance with Employer and its associates as co-insured for Lot	1	No				0.0
	Site Sign Board						
2	Manufacture, transport and erect site sign boards designed as directed by Employer for all sites done to satisifaction of the supervising engineer for all water schemes in Lot	10	No				0.0
	Mobilization, Camp Set-up, Demobilization						
3	Mobilisation, setting up camp, Demobilisation on completion of works and costs associated with entry and exit from all sites in Lot	10	No				0.0
	Onsite Storage						
4	Contractor's onsite storage of consignement and supplies on site, and Security of all energy-package installations for the period up to end of Defect Liability for sites in Lot	10	No				0.0
5	**Employer's Requirements**						
5.1a	Availl under lease One (1) Transport vehicle as specified in Volume 4; Item 5.1, for use by the Employer's Supervision Team over a total period of 39 months; Completion and Operational Acceptance (15 months) and Defects Liability Period (24 months); for an approximate total mileage of 70,000Km.	1	lumpsum				0.0
5.1b	Provide for Operation and Maintence of the Vehicle; Comprehensive Insurance at all times; Routine Servicing, Tyre Replacements and Fuel for an approximate total mileage of 70,000Km.	1	lumpsum				0.0
5.2	Plan, coordinate, facilitate and implement Employer's due-diligence inspection, verification of sources/manufacturers for inverters, pumps, and solar modules plus witnessing functional tests at the factory where these are manufactured as described in GCC Clause 23.8, and further specified in Volume 4; Item 5.2.	1	lumpsum				0.0
5.3	Implementation of the Environment and Social Management Plan; including mitigation of all stated negative impacts; plus the environment, health and safety policy; in accordance with the guidelines of the ESIA and environemntal safeguards of World Bank for all the sites in the Lot as further detailed in Volume 4; Item 5.3.	1	lumpsum				0.0
5.4	Create Site access, land easements and expansion of access roads to all sites in Lot; such that all sites are easily accessible by transport means (on foot, bicycle, motor-cycle and vehicle) for all sites in the Lot as further described in Volume 4: Item 5.4.	1	lumpsum				0.0
5.5	Undertake Community Mobilization, training of operators and water boards in operation and maintenance of facilities for all water schemes in the Lot as described in Volume 4; Item 5.5	1	lumpsum				0.0
5.6	Design and production of IEC Materials and O&M manuals, Record keeping books and Facility Data-plate well laminated-framed and hang on the wall inside the pump house for all the schemes in the Lot as described in Volume 4; Item 5.6.	1	lumpsum				0.0
5.7	Plan, coordinate, facilitate and implement Employers' operational system testing, precommissioning, Operational acceptance monitoring, plus final commissioning and handover of facility for all schemes in Lot as described in Volume 4; Item 5.7	1	lumpsum				0.0
6	**Grabbing of site**						0.0
6.1	Grabbing of site, free of grass, shrubs, levelling and other related earth-moving works, done to the satisifaction of the Engineer for the square metre area where the entire installation will be placed Kasanje Water Supply system	1008.0	m²				0.0
6.2	Grabbing of site for specified square meter done to specifcations refered in 6.1 - Kyamulibwa water supply scheme	600.0	m²				0.0
6.3	Grabbing of site for specified square meter done to specifcations refered in 6.1 - Kakyanga water supply scheme	600.0	m²				0.0
6.4	Grabbing of site for specified square meter done to specifcations refered in 6.1 - Nabigasa water supply scheme	600.0	m²				0.0
6.5	Grabbing of site for specified square meter done to specifcations refered in 6.1 - Ntungu water supply scheme	2520.0	m²				0.0
6.6	Grabbing of site for specified square meter done to specifcations refered in 6.1 - Isingiro TC water supply scheme	1008.0	m²				0.0
6.7	Grabbing of site for specified square meter done to specifcations refered in 6.1 - Rubaya water supply scheme	600.0	m²				0.0
6.8	Grabbing of site for specified square meter done to specifcations refered in 6.1 - Kabura water supply scheme	1008.0	m²				0.0
6.9	Grabbing of site for specified square meter done to specifcations refered in 6.1 - Katuna water supply scheme	1008.0	m²				0.0
6.10	Grabbing of site for specified square meter done to specifcations refered in 6.1 - Nyakashaka water supply scheme	1008.0	m²				0.0

	Guard House						
7	Construct the Guard house with a water borne toilet inclusive of scheme water tank and soak pit as per drawing No.1 and done to specifications and to the satsifaction of the engineer for water scheme	10	No				0.0
	Pump House						
8	Construct the Pump house as per drawing No.1 and done to specifications and to the satsifaction of the engineer for water scheme	10	No				0.0
9	**Fencing and Gate**						
9.1	Construct a fence with reinforced concrete post (100mmx100mm cross section area) with rust-free chain link of wire gauge-12.5 with plastered brick curtain wall and razor wire done to specifications per Linear meter and to the satsifaction of the engineer for Kasanje Water Supply system	142	m				0.0
9.2	Construct a fence with reinforced concrete post done to specifications in 9.1 for Kyamulibwa Water Supply system	142	m				0.0
9.3	Construct a fence with reinforced concrete post done to specifications in 9.1 for Kakyanga Water Supply system	142	m				0.0
9.4	Construct a fence with reinforced concrete post done to specifications in 9.1 for Nabigasa Water Supply system	142	m				0.0
9.5	Construct a fence with reinforced concrete post done to specifications in 9.1 for Ntungu water supply scheme	355	m				0.0
9.6	Construct a fence with reinforced concrete post done to specifications in 9.1 for Isingiro TC Water Supply system	142	m				0.0
9.7	Construct a fence with reinforced concrete post done to specifications in 9.1 for Rubaya water supply scheme	142	m				0.0
9.8	Construct a fence with reinforced concrete post done to specifications in 9.1 for Kabura Water Supply system	142	m				0.0
9.9	Construct a fence with reinforced concrete post done to specifications in 9.1 for Katuna water supply scheme	142	m				0.0
9.10	Construct a fence with reinforced concrete post done to specifications in 9.1 for Nyakashaka Water Supply system	142	m				0.0
							0.0
10	**Pre-cast garden kerbs**						0.0
10.1	Construct pre-cast garden kerbs (width 75mm,height 150mm), with base embedded in 150mm widex100mm thick mass concrete around solar array area off-set 1m from foundation studs and works done to specifications per linear metre and to the satsifaction of the engineer for Kasanje Water Supply system	124.4	m				0.0
10.2	Construct pre-cast garden kerbs done to specifications in 10.1 for Kyamulibwa Water Supply system	78.0	m				0.0
10.3	Construct pre-cast garden kerbs done to specifications in 10.1 for Kakyanga Water Supply system	78.0	m				0.0
10.4	Construct pre-cast garden kerbs done to specifications in 10.1 for Nabigasa Water Supply system	78.0	m				0.0
10.5	Construct pre-cast garden kerbs done to specifications in 10.1 for Ntungu water supply scheme	311.0	m				0.0
10.6	Construct pre-cast garden kerbs done to specifications in 10.1 for Isingiro TC Water Supply system	124.4	m				0.0
10.7	Construct pre-cast garden kerbs done to specifications in 10.1 for Rubaya water supply scheme	78.0	m				0.0
10.8	Construct pre-cast garden kerbs done to specifications in 10.1 for Kabura Water Supply system	124.4	m				0.0
10.9	Construct pre-cast garden kerbs done to specifications in 10.1 for Katuna water supply scheme	124.4	m				0.0
10.10	Construct pre-cast garden kerbs done to specifications in 10.1 for Nyakashaka Water Supply system	124.4	m				0.0
							0.0
11	**Machine crushed stone aggregate**						0.0
11.1	Provide and place machine crushed stone aggregate of size 25mm, for a layer of thickness 75mm placed within the square metre area covered by solar array, done to specifications and satisifaction of the Engineer for Kasanje Water Supply system	359.7	m²				0.0
11.2	Provide and place machine crushed stone aggregate done to specifications in 11.1 for Kyamulibwa Water Supply system	191.8	m²				0.0
11.3	Provide and place machine crushed stone aggregate done to specifications in 11.1 for Kakyanga Water Supply system	191.8	m²				0.0
11.4	Provide and place machine crushed stone aggregate done to specifications in 11.1 for Nabigasa Water Supply system	191.8	m²				0.0
11.5	Provide and place machine crushed stone aggregate done to specifications in 11.1 for Ntungu water supply scheme	899.3	m²				0.0
11.6	Provide and place machine crushed stone aggregate done to specifications in 11.1 for Isingiro TC Water Supply system	359.7	m²				0.0
11.7	Provide and place machine crushed stone aggregate done to specifications in 11.1 for Rubaya water supply scheme	191.8	m²				0.0
11.8	Provide and place machine crushed stone aggregate done to specifications in 11.1 for Kabura Water Supply system	359.7	m²				0.0
11.9	Provide and place machine crushed stone aggregate done to specifications in 11.1 for Katuna water supply scheme	359.7	m²				0.0
11.10	Provide and place machine crushed stone aggregate done to specifications in 11.1 for Nyakashaka Water Supply system	359.7	m²				0.0
							0.0

12	**Site landscaping**						0.0
12.1	Site landscaping including planting of grass, and construction of drainage channels to prevent surface runn-off as well as water logging during rainy seasons; clearing the site off all the debris as required for Kasanje Water Supply system (square meter)	636.3	m²				0.0
12.2	Site landscaping done to specification as refered to 12.1 for Kyamulibwa Water Supply system (square meter)	396.2	m²				0.0
12.3	Site landscaping done to specification as refered to 12.1 for Kakyanga Water Supply system (square meter)	396.2	m²				0.0
12.4	Site landscaping done to specification as refered to 12.1 for Nabigasa Water Supply system (square meter)	396.2	m²				0.0
12.5	Site landscaping done to specification as refered to 12.1 for Ntungu Water Supply system (square meter)	4021.8	m²				0.0
12.6	Site landscaping done to specification as refered to 12.1 for Isingiro TC Water Supply system (square meter)	636.3	m²				0.0
12.7	Site landscaping done to specification as refered to 12.1 for Rubaya Water Supply system (square meter)	396.2	m²				0.0
12.8	Site landscaping done to specification as refered to 12.1 for Kabura Water Supply system (square meter)	636.3	m²				0.0
12.9	Site landscaping done to specification as refered to 12.1 for Katuna Water Supply system (square meter)	636.3	m²				0.0
12.10	Site landscaping done to specification as refered to 12.1 for Nyakashaka Water Supply system (square meter)	636.3	m²				0.0
13	**Solar Array mounting frame Installation**						
13.1	Install Solar Array mounting frame in Schedule 1 to Specifcations for - Kasanje water supply scheme	7	No			0.0	
13.2	Install Solar Array mounting frame in Schedule 1 to Specifcations for - Kyamulibwa water supply scheme	4	No			0.0	
13.3	Install Solar Array mounting frame in Schedule 1 to Specifcations for - Kakyanga water supply scheme	4	No			0.0	
13.4	Install Solar Array mounting frame in Schedule 1 to Specifcations for - Nabigasa water supply scheme	4	No			0.0	
13.5	Install Solar Array mounting frame in Schedule 1 to Specifcations for - Ntungu water supply scheme	1	No			0.0	
13.6	Install Solar Array mounting frame in Schedule 1 to Specifcations for - Isingiro TC water supply scheme	3	No			0.0	
13.7	Install Solar Array mounting frame in Schedule 1 to Specifcations for - Rubaya water supply scheme	2	No			0.0	
13.8	Install Solar Array mounting frame in Schedule 1 to Specifcations for - Kabura water supply scheme	2	No			0.0	
13.9	Install Solar Array mounting frame in Schedule 1 to Specifcationse for - Katuna water supply scheme	4	No			0.0	
13.10	Install Solar Array mounting frame in Schedule 1 to Specifcations for - Nyakashaka water supply scheme	3	No			0.0	
14	**Solar Module Installation**						
14.1	Install Solar modules in Schedule 1 to Specifcations for - Kasanje water supply scheme	140	No			0.0	
14.2	Install Solar modules in Schedule 1 to Specifcations for - Kyamulibwa water supply scheme	80	No			0.0	
14.3	Install Solar modules in Schedule 1 to Specifcations for - Kakyanga water supply scheme	80	No			0.0	
14.4	Install Solar modules in Schedule 1 to Specifcations for - Nabigasa water supply scheme	80	No			0.0	
14.5	Install Solar modules in Schedule 1 to Specifcations for - Ntungu water supply scheme	20	No			0.0	
14.6	Install Solar modules in Schedule 1 to Specifcations for - Isingiro TC water supply scheme	60	No			0.0	
14.7	Install Solar modules in Schedule 1 to Specifcations for - Rubaya water supply scheme	40	No			0.0	
14.8	Install Solar modules in Schedule 1 to Specifcations for - Kabura water supply scheme	40	No			0.0	
14.9	Install Solar modules in Schedule 1 to Specifcations for - Katuna water supply scheme	80	No			0.0	
14.10	Install Solar modules in Schedule 1 to Specifcations - Nyakashaka water supply scheme	60	No			0.0	
15	**Power Inverter & Pump Controller Installation**						
15.1	Install 15.0kW Power Inverter & Pump controller in Schedule 1 to Specifcations for - Kasanje water supply scheme	1	No			0.0	
15.2	Install 7.5kW Power Inverter & Pump Controller in Schedule 1 to Specifcations for - Kyamulibwa water supply scheme	1	No			0.0	
15.3	Install 7.5kW Power Inverter & Pump Controller in Schedule 1 to Specifcations for - Kakyanga water supply scheme	1	No			0.0	
15.4	Install 7.5kW Power Inverter & Pump Controller in Schedule 1 to Specifcations for - Nabigasa water supply scheme	1	No			0.0	
15.5	Install 22.0kW Power Inverter & Pump Controller in Schedule 1 to Specifcations for - Ntungu water supply scheme	1	No			0.0	
15.6	Install 11.0kW Power Inverter & Pump Controller in Schedule 1 to Specifcations for - Isingiro TC water supply scheme	1	No			0.0	
15.7	Install 7.5kW Power Inverter & Pump Controller in Schedule 1 to Specifcations for - Rubaya water supply scheme	1	No			0.0	
15.8	Install 11.0kW Power Inverter & Pump Controller in Schedule 1 to Specifcations for - Kabura water supply scheme	1	No			0.0	
15.9	Install 11.0kW Power Inverter & Pump Controller in Schedule 1 to Specifcations for - Katuna water supply scheme	1	No			0.0	
15.10	Install 11.0kW Power Inverter & Pump Controller in Schedule 1 to Specifcations - Nyakashaka water supply scheme	1	No			0.0	

16	**Water Pump Installation**						
16.1	Install 11.0kW water pump in Schedule 1 to Specifcations for - Kasanje water supply scheme	1	No			0.0	
16.2	Install 5.5kW water pump in Schedule 1 to Specifcations for - Kyamulibwa water supply scheme	1	No			0.0	
16.3	Install 4.0kW water pump in Schedule 1 to Specifcations for - Kakyanga water supply scheme	1	No			0.0	
16.4	Install 4.0kW water pump in Schedule 1 to Specifcations for - Nabigasa water supply scheme	1	No			0.0	
16.5	Install 15.0kW water pump in Schedule 1 to Specifcations for - Ntungu water supply scheme	1	No			0.0	
16.6	Install 7.5kW water pump in Schedule 1 to Specifcations for - Isingiro TC water supply scheme	1	No			0.0	
16.7	Install 5.5kW water pump in Schedule 1 to Specifcations for - Rubaya water supply scheme	1	No			0.0	
16.8	Install 7.5kW water pump in Schedule 1 to Specifcations for - Kabura water supply scheme	1	No			0.0	
16.9	Install 7.5kW water pump in Schedule 1 to Specifcations for - Katuna water supply scheme	1	No			0.0	
16.10	Install 7.5kW water pump in Schedule 1 to Specifcations - Nyakashaka water supply scheme	1	No			0.0	
	Well head assembly Installation						
17	Install Drop pipes for water pump made from PE/ HDPE in accordance to the pump installation depth inclusive of the Well head assembly structures and associated accessories done to specifications and to the satisfaction of the engineer for all water schemes in Lot	10	No			0.0	
	Remote Monitoring Unit Installation						
18	Install Data Monitors in Schedule 1 to Specifcations for all water schemes in Lot including all associatated accessories in order for remote monitoring to be done	10	No			0.0	
19	**PV-Disconnect Switch/ Minature Circuit breaker Installation**						
19.1	Install PV-Disconnect Switch in Schedule 2 to Specifcations - Kasanje water supply scheme	4	No				0.0
19.2	Install PV-Disconnect Switch in Schedule 2 to Specifcations - Kyamulibwa water supply scheme	2	No				0.0
19.3	Install PV-Disconnect Switch in Schedule 2 to Specifcations - Kakyanga water supply scheme	2	No				0.0
19.4	Install PV-Disconnect Switch in Schedule 2 to Specifcations - Nabigasa water supply scheme	2	No				0.0
19.5	Install PV-Disconnect Switch in Schedule 2 to Specifcations - Ntungu water supply scheme	5	No				0.0
19.6	Install PV-Disconnect Switch in Schedule 2 to Specifcations - Isingiro TC water supply scheme	3	No				0.0
19.7	Install PV-Disconnect Switch in Schedule 2 to Specifcations - Rubaya water supply scheme	2	No				0.0
19.8	Install PV-Disconnect Switch in Schedule 2 to Specifcations - Kabura water supply scheme	3	No				0.0
19.9	Install PV-Disconnect Switch in Schedule 2 to Specifcations - Katuna water supply scheme	3	No				0.0
19.10	Install PV-Disconnect Switch in Schedule 2 to Specifcations - Nyakashaka water supply scheme	3	No				0.0
20	**Change-over switch**						
20.1	Install 60A Change-over switch in Schedule 2 to Specifcations - Kasanje water supply scheme	1	No				0.0
20.2	Install 60A Change-over switch in Schedule 2 to Specifcations - Kyamulibwa water supply scheme	1	No				0.0
20.3	Install 60A, Change-over switch in Schedule 2 to Specifcations - Kakyanga water supply scheme	1	No				0.0
20.4	Install 60A, Change-over switch in Schedule 2 to Specifcations - Nabigasa water supply scheme	1	No				0.0
20.5	Install 80A, Change-over switch in Schedule 2 to Specifcations - Ntungu water supply scheme	1	No				0.0
20.6	Install 60A, Change-over switch in Schedule 2 to Specifcations - Isingiro TC water supply scheme	1	No				0.0
20.7	Install 60A, Change-over switch in Schedule 2 to Specifcations - Rubaya water supply scheme	1	No				0.0
20.8	Install 60A, Change-over switch in Schedule 2 to Specifcations - Kabura water supply scheme	1	No				0.0
20.9	Install 60A, Change-over switch in Schedule 2 to Specifcations - Katuna water supply scheme	1	No				0.0
20.10	Install 60A, Change-over switch in Schedule 2 to Specifcations - Nyakashaka water supply scheme	1	No				0.0

21	**Assortment set of electrical cables Installation**						
21.1	Install Assortment set of electrical cables in Schedule 2 to Specifcations - Kyamulibwa water supply scheme	1	No				0.0
21.2	Install Assortment set of electrical cables in Schedule 2 to Specifcations - Kyamulibwa water supply scheme	1	No				0.0
21.3	Install Assortment set of electrical cables in Schedule 2 to Specifcations - Kakyanga water supply scheme	1	No				0.0
21.4	Install Assortment set of electrical cables in Schedule 2 to Specifcations - Nabigasa water supply scheme	1	No				0.0
21.5	Install Assortment set of electrical cables in Schedule 2 to Specifcations - Ntungu water supply scheme	1	No				0.0
21.6	Install Assortment set of electrical cables in Schedule 2 to Specifcations - Isingiro TC water supply scheme	1	No				0.0
21.7	Install Assortment set of electrical cables in Schedule 2 to Specifcations - Rubaya water supply scheme	1	No				0.0
21.8	Install Assortment set of electrical cables in Schedule 2 to Specifcations - Kabura water supply scheme	1	No				0.0
21.9	Install Assortment set of electrical cables in Schedule 2 to Specifcations - Katuna water supply scheme	1	No				0.0
21.10	Install Assortment set of electrical cables in Schedule 2 to Specifcations - Nyakashaka water supply scheme	1	No				0.0
22	**System grounding Installation** Install System grounding with equi-potential bonding in Schedule 2 to Specifcations for all water schemes in lot	10	No				0.0
23	**Lightenning Protection system Installation**						
23.1	Install Lightenning Protection system in Schedule 2 to Specifcations- Kasanje water supply scheme	2	No				0.0
23.2	Install Lightenning Protection system in Schedule 2 to Specifcations- Kyamulibwa water supply scheme	1	No				0.0
23.3	Install Lightenning Protection system in Schedule 2 to Specifcations- Kakyanga water supply scheme	1	No				0.0
23.4	Install Lightenning Protection system in Schedule 2 to Specifcations- Nabigasa water supply scheme	1	No				0.0
23.5	Install Lightenning Protection system in Schedule 2 to Specifcations- Ntungu water supply scheme	3	No				0.0
23.6	Install Lightenning Protection system in Schedule 2 to Specifcations- Isingiro TC water supply scheme	2	No				0.0
23.7	Install Lightenning Protection system in Schedule 2 to Specifcations- Rubaya water supply scheme	1	No				0.0
23.8	Install Lightenning Protection system in Schedule 2 to Specifcations- Kabura water supply scheme	2	No				0.0
23.9	Install Lightenning Protection system in Schedule 2 to Specifcations- Katuna water supply scheme	2	No				0.0
23.10	Install Lightenning Protection system in Schedule 2 to Specifcations- Nyakashaka water supply scheme	2	No				0.0
24	**Auxiliary solar-PV lighting system Installation** Install Auxiliary solar-PV lighting system in Schedule 2 to Specifcations for all water schemes in lot	10	No				0.0
25	**Alarm system Installation** Install Alarm system set with siren for intrusion in Schedule 2 to Specifcations for all water schemes in lot	10	No				0.0
26	**System Testing** Installation systems testing and commissioning plus all costs associated with special kits for measuring and conducting functional tests as well as record keeping and analysis to ensure that functional guarantees are attained as well as monitoring, plus final commissioning and handover of facilities for sites in lot	10	No				0.0
27	**As-built Drawings** Provide As-built Drawings for each site including Solar array and Systems Layout, electrical wiring diagrams and all facilities (5 copies-printed in full-colour and well bound in a booklet) to satisfaction of Engineer	10	No				0.0
28	**After Sales Service** After Sales Service: Bidder shall offer free extended service to any malfunction of products bought from manufacturers which is caused by quality within the warranty, and permanent maintenance on purchaser's dispense for products beyond the warranty — a) Solar water pumping inverter: 5years from the date of installation at site b) Solar modules: 25 years for materials and workmanship from the date of installation at site; under standard test conditions, output power no less than 90% of rated power in 10 years and no less than 80% of rated power in 25 years guaranteed c) Water pump: 2years starting from the date of installation	10	No			0.0	
29	**User Training Methodology** User Training Methodology: Bidder shall provide full day re-orientation solar water pumping user training in Operations and Maintenance per scheme to the employer's personnel at the end of defects liability-monitoring period with emphasis placed on remote sensing capabilities incorporated in the pump controller	10	No			0.0	0.0
	TOTAL (to Schedule No. 5. Grand Summary)					**0.0**	**0.0**

Name of Bidder	
Signature of Bidder	

Electricity Access Scale Up Project (EASP)- Water Component

Lot 3: Supply, Installation and Commissioning of 10 Solar Photovoltaic (PV) Energy Packages for Water Supply Schemes in Kasanje, Kyamulibwa, Kakyanga, Nabigasa-Lyabugumu, Ntungu, Isingiro TC, Rubaya, Kabura, Katuna, and Nyakashaka- Rubingo

Schedule of Rates and Prices

Schedule No. 5 Grand Summary

Item	Description	Total Price[1]	
		Foreign	Local
1	Total Schedule No. 1. Plant, and Mandatory Spare Parts Supplied from Abroad	0.0	
2	Total Schedule No. 2. Plant, and Mandatory Spare Parts Supplied from Within the Employer's Country		0.0
3	Total Schedule No. 3. Design Services		0.0
4	Total Schedule No. 4. Installation and Other Services	0.0	0.0
TOTAL		**0.0**	**0.0**
	Add 10% Contingency		
	Add 18% VAT		
	GRAND TOTAL (to Letter of Bid)		
		Name of Bidder	
		Signature of Bidder	