

HARIPUR MUNICIPALITY

Office of municipal executive

Sarlahi, Madhesh Pradesh, Nepal

Technical specification and cost estimation of Electric loader (EV loader)

S.N	Criteria	Technical requirements	Offered specifications
1.	General	Electric loader of sturdy design , suitable for riding in smooth and rough condition of Nepal having kerb weight not less than 200kg (without battery).	Model: Make year: Kerb weight:
3.	Rated motor power	2200 watt BLDC (brushless direct current) motor that provides main driving power.	Rated power: Motor type:
4.	Peak power (max. power)	More than 3000 watt while climbing to high hill road	Peak power:
5.	Climbing/ gradeability	Normally 15 degree to 20 degree capability	Gradeability:
6.	Gauges	To include necessary gauges and meter for efficient operation and maintenance of the vehicle.	
7.	Transmission power	Differential shaft (motor directly attached with differential) or direct drive.	Type:
8.	Controller	Heavy duty electronic controller for motor drive with smooth operation.	
9.	Current rating of controller	Equal to or more than 80 ampere for smooth operation	Rating:
10.	Throttle	Either hand or foot throttle (depends on model) that sends signal to motor to speed up or slow down the vehicle.	Throttle type:
11.	Battery type	Lead acid or lithium ion (optional)	Type:
12.	Battery capacity	Not less than 60v160ah	
13.	Operating voltage	60 volt (nominal) and 66.5volt (high cut-off voltage)	
14.	Charging voltage	220-240v AC with 50Hz frequency	
15.	Charging time	6-8 hours (depend on battery type and charger)	Charging time:
16.	Brake	Rear drum brake and front disc or drum brake(optional)	
17.	Frame	Steel or welded tubular frame of sturdy design.	
18.	Suspension	Front: telescopic forks Rear: leaf spring suspension for rough roads.	
19.	Ground clearance Wheel base	Minimum 150mm Minimum 2000-2150mm	GC: WB:
20.	Loading capacity	minimum 1000kg (1 Ton)	
21.	Size of trolley (dhaala)	Atleast 6ft*4ft (L*B)	
22.	Instruction	All sign and instruction on the E-rickshaw shall be in English.	
23.	Manuals	One set of operators and owner's instruction manual in English shall be supplied with each E-rickshaw.	

24.	Tools	One set of tools as required for general maintenance shall be supplied with each unit.	
25.	Additional features	<ul style="list-style-type: none"> Instrument Panel or cluster: Basic meter with battery indicator, odometer, tachometer. Lighting: Headlights, rear lights, indicators (LED or conventional). Accessories: Horn, windshield wiper, cloth or metal roof. 	
26.	Tyre	Standard size 3.50-12 inch front tyre minimum 3.50-12 inch rear tyre minimum	Front tyre: Rear tyre:
27.	Colour	Any standard colour.	
28.	Warranty	Manufacture shall provide minimum of 6 months warranty on battery, motor and controller and 1 year free service.	
29.	Range or mileage	Minimum 80-110km depends on load carry by vehicle and surface gradient of road surface.	
31.	Delivery	<p>The E-rickshaw shall be delivered to: Haripur municipality Office of municipal executive Sarlahi, madhesh Pradesh, Nepal</p>	

NOTE: The major items are indicated by bold and highlighted letter/alphabet in the technical specifications.