

## 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 <b>sturdy design</b> , 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	<b>2200 watt</b> BLDC (brushless direct current) motor that provides main driving power.	Rated power: Motor type:
4.	Peak power (max. power)	More than <b>3000 watt</b> 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 <b>80 ampere</b> 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 <b>60v160ah</b>	
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	<b>Rear drum brake and front disc or drum brake(optional)</b>	
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 <b>150mm</b> Minimum <b>2000-2150mm</b>	GC: WB:
20.	Loading capacity	minimum <b>1000kg (1 Ton)</b>	
21.	Size of trolley (dhaala)	<b>Atleast 6ft*4ft (L*B)</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"> <li>• <b>Instrument Panel or cluster:</b> Basic meter with battery indicator, odometer, tachometer.</li> <li>• <b>Lighting:</b> Headlights, rear lights, indicators (LED or conventional).</li> <li>• <b>Accessories:</b> Horn, windshield wiper, cloth or metal roof.</li> </ul>	
26.	Tyre	Standard size <b>3.50-12 inch</b> front tyre minimum <b>3.50-12 inch</b> rear tyre minimum	Front tyre: Rear tyre:
27.	Colour	Any standard colour.	
28.	Warranty	Manufacture shall provide minimum of <b>6 months</b> warranty on battery, motor and controller and 1 year free service.	
29.	Range or mileage	Minimum <b>80-110km</b> depends on load carry by vehicle and surface gradient of road surface.	
31.	Delivery	<p>The E-rickshaw shall be delivered to:</p> <p><b>Haripur municipality</b> 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.