

# **Amendment No.1**

Ref. N	o: CESL/06/2024-25/E-bicycle/24250910/Amdt-1	Date: 14/11/2024
To M/s	······································	
	t: Amendment No.1 in the tender for "Procurement and Supply ting micro mobility solutions across India."	of Electric Cycles for
Refere	nce:	
	Our tender no.: CESL/06/2024-25/E-bicycle/24250910 for " <b>Procu Electric Cycles for promoting micro mobility solutions across Ind</b> Pre-Bid Meeting dated: 12.11.2024.	110
Sir/ Ma	adam,	
a.	For Clarification/ Corrigendum(s)/ Amendment(s)/ Response to Pre-b Annexure-A.	oid queries please refer
Rest al	l terms and conditions remain unchanged.	
Thanki	ng you,	
		nd on behalf of CESL wned subsidiary of EESL,

	Annexure A						
S. No.	Particulars	Description as per RFP	Queries/ Clarification of the bidder	Amendments/Clarifications by CESL			
1.	ITB Clause 11	Documents Comprising the Bid	only this tender document to be uploaded or also the previous tender document with all documents	Clarification: Only this tender document vide NIT no: CESL/06/2024-25/E-Bicycle/24250910			
2.	ITB Clause 22.2 & Section 2 Page 2-5	Signing of all Bid Documents	All Tender document pages can be digitally signed instead of physical signature and stamp	Clarification: All documents can be signed physically or digitally along with stamp.			
3.	Clause 2.2.1 Contractual Experience	Duly Certified copy of bill/ invoice required for 1080 cycles for establishing credentials	Whether consolidated statement of Invoices certified by statutory auditor is sufficient OR all individual invoices of all customers each of them certified by statutory auditor is required	Clarification: Consolidated statement to be certified by statutory auditor with stamp. Individual invoices can be self-certified by the bidder as explained during the pre-bid meeting.			
4.	Clause 2.2.1 Contractual Experience	Form Exp-2	Cycle sold data can be mentioned from FY-22,23 &24 OR from FY-21,22,23 for which the audited financial statements are being provided as per financial eligibility criteria	Clarification – No changes, clause remain same as per RfP.			
5.	Clause 2.2.1 Contractual Experience	Form Exp-2 & Exp-1	Is the form required to be certified from statutory auditor or self-certified	Clarification – Self-certified as clarified during the Pre-bid meeting.			
6.	Clause 2.3.2 Size of Operation	Form FIN-2	FY2024 is also required to be mentioned in addition to FY-21,22 & 23	Clarification – As clarified during the Pre-bid.			
7.	Clause 2.3.2 Size of Operation	Form Fin-2	Please confirm the applicable dates for Exchange rates	<b>Clarification:</b> As per clause ITB 21.1 in Section-2 of the RfP.			
8.	Section 4 Page 4-25	Form Fin-3 Cash Flow Capacity	Cannot locate criteria 2.4.3; this form is applicable for whom and what is the criteria	Not Applicable.			



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Serial No: 1730C1E
PB: mvenugopal(MANGALI VENUGOPAL)
Date: 14-11-2024

9.	Motor Certification	As per IS 1391 (PART 2): 2018 or equivalent international standard	IS 1391 (PART 2): 2018 is applicable for air conditioning motors but not for EV Motors, we have CE UDEM Certificate for BLDC motor as equivalent	Amended in Section 6: Product Specifications Motor Certification: As per AIS 041 or equivalent international standard
10.	Cabling	Internal with IP65 / IP 67 protection	All cables are having IPX6 protection. Dust Protection not applicable for cables as per our supplier	Amended in Section 6: All exposed cabling / connectors should be IP65/67.
11.	Locking Mechanism	Ignition Cut off	Do you need only Ignition Cut-off or a key should be associated	Amended in section 6: Locking Mechanism: Ignition Cut off with key
12.	Frame	Steel tubes – 2039 (parts 1 to 3): 1991	1. You have mentioned two different standards for this component 2. We have a sample IS3074:2013 test certificate for Frame When we will go for fresh orders after award of LOA then the supplier will provide the relevant test certificate based on the steel tubes used during that point in time, which will be through a NABL/GOI recognised testing agency	Amended in Section 6.  Steel/ Alloy frame. Test Certificate as per EN 15194:2017 (E) or equivalent international standard.
13.	Saddle (Wide)	Extra Foam and Wide seat with - Size- 24.1 cm x 29.2 cm (+/- 10%)	Our Saddle size is 21 cm x 25 cm	<b>Clarification</b> – No changes, clause remain same as per RfP.
14.	Mudguards	Steel - Front and Back Weight and dimensions: Min 500 g or equivalent Front length: Min 635 mm (1 stay) or equivalent Back length: Min 1147 mm (2 stays) or equivalent	Steel - Front and Back - YES Weight and dimensions: 560 gms Front length: Max. 614 mm (1 stay) Back length: Max. 948 mm (1 stay)	Clarification – No changes, clause remain same as per RfP.
15.	All Components	Test reports as per EN 15194:2017 (E) or equivalent international standard	The word "International" to be omitted to cover both Indian and International standards	<b>Clarification</b> – No changes, clause remain same as per RfP.



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USer ID: mvenugopal
Serial No: 1730C1E
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Date: 14-11-2024

## Section 6 - Schedule of Supply

## **Contents**

1.	List of Goods and Related Services	6-4
2.	Delivery and Completion Schedule	6-Error! Bookmark not defined.
3.	Technical Specifications	6-Error! Bookmark not defined.
4.	Drawings	6-24

## 6.1 Background

Rural India, home to nearly 70% of the Indian population, plays an immensely significant role in the country's economy. However, a vast majority of villages across India still lack proper transportation facilities. This issue has been exacerbated by the rising costs of fuel and vehicles in recent years. Consequently, inhabitants of rural areas, particularly women working in self-help groups (SHGs), factories, manufacturing units, and school children, heavily rely on public transportation for their basic travel needs.

Due to the longer distances between travel destinations, the use of active modes of transportation, such as walking and conventional cycling, is often not a viable option. Moreover, public transport in low-density rural areas tends to be very limited or unavailable. It is here that the introduction of electric bicycles would play a crucial role, offering a reliable mode of transportation to the commuters. Electric bicycles would support more sustainable rural mobility by enhancing accessibility and offering health and environmental benefits.

The Asian Development Bank (ADB) has secured a technical assistance (TA) from the Global Environment Facility (GEF) for India electric mobility (e-mobility) project to enable Government of India and relevant stakeholders to make the transformative shift to decarbonize transport systems, catalyze access to finance for a large-scale adoption of Electric Vehicles across vehicle segments and reduce air pollution in cities by promoting scale-up of electric mobility in India.

Energy Efficiency Services Limited is the Executing Agency for this TA-9874 IND program and Convergence Energy Services Limited (CESL) is entrusted with the responsibility of doing the procurement and monitor the implementation for this Pilot Program. CESL, under Ministry of Power is implementing this program for EESL:

- Enabling scale-up of electric vehicle markets through pilot demonstrations
- Enabling conditions for e-mobility investments created, new business models and charging infrastructure plans developed at city level

Keeping in view the above, CESL wants to conduct a pilot demonstration program by deploying electric bicycles for SHG women in three states in India and analyze the impact of electric bicycles on lives of SHG women in one of the states.

Initiative aligns with the Indian government's "Lakhpati Didi" scheme, designed for SHG women to empower them by providing essential skills for establishing micro-enterprises. Supplying these women with electric bicycles for mobility would not only expand the reach of the program but also support in graduating SHG members into micro-entrepreneurs and allow livelihood diversification.

#### **Brief about the Pilot Project:**

This Pilot shall be known as "Sustainable Transport for Rural Entrepreneurs through Electric Cycles-S.T.R.E.E."

The pilot program will be executed in collaboration with respective State Rural Livelihood Missions' (SRLMs) with overall support from Ministry of Rural Development in the States of **Bihar, Kerala, and Others.** 

**Note:** The pilot program in Bihar would be comprehensive covering deployment electric bicycles and training of end users however, the program would be restricted to deployment of electric bicycles in remaining States.

#### (i) Pilot in Patna, Vaishali and Muzaffarpur, Bihar

Deployment of 500 cargo electric cycles in districts of Bihar in collaboration with State Rural Livelihood Mission. In addition to deployment of 500 electric cycles in the districts, the pilot will also cover training of 50 SHG women through a technical institute (engaged by CESL), and an Impact Assessment Study through an agency engaged by CESL.

**Key pilot activities:** The broad scope of work envisages:

- Awareness and mobilization camps on electric cycles
- Procurement and deployment of cargo electric cycles
- Providing warranty services for a period of three (03) years
- Capacity development and training of SHG Women
- Impact assessment post deployment of electric cycles

# (ii) Pilot in Remaining States of Kerala, Madhya Pradesh (MP) and Andhra Pradesh(AP)

Deployment of 1,300 cargo electric cycles in the states of Kerala, MP and AP.

- ❖ 800 in Palakkad and Kannur, Kerala
- 500 in Vidisha, MP and Kuppam, AP

**Key pilot activities:** The broad scope of work of the pilot envisages:

- Procurement and deployment of cargo electric cycles
- ❖ Providing warranty services for a period of three (03) years

CESL's objective through this pilot is to demonstrate a working model for micro mobility in rural context and accelerate adoption of electric cycles by bringing economies of scale with an aim to develop a self-sustaining electric cycle market in India. This will further proliferate awareness of electric cycles as a clean, sustainable and affordable mobility option among end users.

In addition to the procurement and deployment of electric cycles in various cities across the country as mentioned above, the proposed pilot in **Bihar** will also measure the benefits of the pilot program through impact assessment study for the rural economy focusing on SHG

women. The outcome of the pilot will feed into the policy makers to design programs/ schemes focused on rural and sustainable micro mobility in India.

## 6.2 List of Goods and Related Service

Lot No.: 1							
Lot Name of Bihar	Lot Name: Cargo electric cycles with GPS in Patna, Vaishali and Muzaffarpur districts of Bihar						
Item No.	Name of Goods or Related Services	Description	Unit of Measurement	Quantity Allocation			
1	Electric Cycle	Cargo – with GPS service for a period of one year	Nos.	500			

Lot No: 2							
Lot Name	Lot Name: Cargo electric cycles in Palakkad and Kannur, Kerela						
Item No.	Name of Goods or Related Services	Description	Unit of Measurement	Quantity Allocation			
1	Electric Cycle	Cargo	Nos.	800			

Lot No.: 3								
Lot Name	Lot Name: Cargo electric cycles in the districts of Vidisha, MP and Kuppam (AP)							
Item No.	Name of Goods or Related Services	Description	Unit of Measurement	Quantity Allocation				
1	Electric Bicycle	Cargo	Nos.	500				

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## 6.3 Scope Of work

This RfP has been prepared for procurement of 1,800 cargo electric cycles with three (03) years comprehensive warranty. The scope of the bidder(s) shall include designing, engineering, manufacturing, testing, inspection, supply, transportation, complete bicycle warranty & transit insurance and delivery to project site for promoting micro mobility solutions in the districts of **Bihar**, **Kerala**, **Madhya Pradesh and Andhra Pradesh**. The bidder(s) shall also provide comprehensive onsite warranty for a period of three (03) years including no cost maintenance and arranging periodic service of electric cycles deployed in different cities for a period of one (01) year from the date of deployment at the specified location.

#### The scope of work for CESL shall be as follows:

#### 1. Procurement

- 1.1. CESL shall procure and deliver **1,800 nos. of cargo electric cycles** in **three (03) Lots** through this tender to its clients.
- 1.2. Procurement will be done as per ADB procurement policy.
- 1.3. The rate quoted by bidder(s) shall be inclusive of freight & transit insurance on CIF basis till the delivery locations, free periodic maintenance service for a period of one year and 3-year comprehensive warranty. CESL's scope is limited to coordinating delivery of products through selected bidder till the delivery location.
- 1.4. CESL may carry out quality inspection of material wherever necessary at manufacturing company / dealer locations. Expense towards boarding/lodging/incidental for the same is in the scope of CESL.
- 1.5. The delivery period required for supply of electric cycles would be within 90 days from the release of purchase order by CESL. In case of any changes in the delivery period, the same shall be informed in advance to the selected bidder.
- 1.6. CESL shall provide the details of beneficiaries to the selected bidder at the time of confirmation for the delivery of electric bicycles.

#### 2. Payment

- 2.1. CESL shall facilitate the release of payment through ADB to the selected bidder(s) post confirmation received from the client regarding successful delivery of cargo electric cycles at the location specified by CESL and Proof of Delivery (PoD) (signed delivery challan (PoD) and proof of assembly) duly signed by the client representative & submitted by the bidder(s) along with the invoice.
- 2.2. CESL shall submit joint statement signed by CESL and respective state rural livelihood mission (SRLM) to ADB with the checklist for selecting each woman beneficiary along with the details of the electric cycle issued i.e. serial number etc. to the respective beneficiary. The bidder shall facilitate in collecting and providing the details of beneficiaries as defined in Section 9- Annexure I under Declaration of Delivery of Electric Cycles. The template for beneficiary data collection at Annex I may get modified as per site/ location requirements. The signed

joint statement shall be submitted along with other documents mentioned in 2.1 to ADB for processing of the payment.

#### The scope of work for Bidder(s) shall be as follows:

#### 1. Tender

- 1.1. The bidder shall provide the quotes separately for each of the lots for deployment of electric cycles including one-year free maintenance and three (03) years comprehensive warranty package coverage and / or any other cost / margins direct or indirect through service provider / dealership / channel partners / any other source on electric cycles. The quote shall be exclusive of all applicable taxes and duties. Comprehensive warranty shall mean that all components of the cycle shall be either repaired or replaced as per the requirements for a period of three (03) years from the date of deployment. However, any physical damage or wear and tear shall not be covered under the comprehensive warranty.
- 1.2. The bidder is required to provide GPS as a service for a period of one (01) year from the date of deployment under LOT I in districts of Bihar.
- 1.3. For remaining LOTs, deployment of electric cycles is to be done without the GPS.

#### 2. Delivery

- 2.1. The successful bidder(s) will ensure timely delivery of electric cycles to CESL's client location as per the scheduled timelines.
  - ➤ LOT I –The successful bidder must ensure that electric cycles to be delivered in Patna, Vaishali and Muzaffarpur districts of Bihar are provided along with GPS as a service for a period of one (01) year.
  - ➤ LOT II & III The successful bidder(s) to ensure the timely delivery of electric cycles in districts of Kerala, Madhya Pradesh and Andhra Pradesh respectively. Please note, GPS as a service is not required for these lots.

Since the locations are multiple in each district, bidder(s) may incorporate the transportation cost suitably while quoting rates. There shall be no additional transportation cost provided to the bidder(s).

Selected bidder(s) shall ensure delivery of electric cycles at the client's location without any physical damage/ wear and tear. In case of any physical damage during transit, the bidder(s) shall ensure timely replacement of such electric cycles with another having similar specifications. At the time of delivery, the bidder(s) will have to collect proof of delivery from the clients' nominated representative.

 Proof of Delivery shall include signed delivery challan (PoD) and proof of assembly of each electric cycle as well. The bidder shall maintain a record of the details of end

- beneficiary along with the Serial No. of electric cycle allotted and submit the same to CESL for purpose of invoicing.
- Assembly of the electric cycle shall be carried out within 5 calendar days from the date of delivery at the location.
- Assembly job card shall be prepared for each electric cycle having details of the beneficiary as per the list provided by CESL and it is the responsibility of the successful bidder(s) to get it duly signed by the representative of the CESL's client. A copy of the assembly job card shall be provided to CESL's client as well.
- Assemble job card shall include the UIN along with the other key components, ID, including GPS device no. linked with the electric cycle (wherever the GPS devices are installed). A consolidated list of cycle UIN no. along with corresponding GPS IDs (wherever installed) would be provided to CESL immediately after assembly at any location.
- The succesful bidder(s) is also required to map each cycle with each beneficiary as per the information provided CESL/ CESL's client. (Format defined under Annexure I Section 9). The template for beneficiary data collection at Annex I may get modified as per site/ location requirements.
- 3. **Post-delivery invoicing:** Submits invoice to CESL for 100% payment after delivery and assembly of electric cycles with proof of delivery signed and duly accepted by client nominated representative.

#### 4. Post delivery Warranty and maintenance service- All LOTS

- 4.1. The battery capacity must exceed the allowed degradation at all times during the initial three (03) years of continuous operations from the date of delivery of vehicle.
- 4.2. The bidder shall provide comprehensive battery warranty of three (03) years with minimum 2,000 charging cycles and provide necessary support in battery replacement of the electric cycles from the date of deployment in case of any issue in battery performance during the warranty period.
  - **Note:** Comprehensive battery warranty shall mean that all components of the battery are either repaired or replaced as per the requirements at the client location.
- 4.3. The bidder(s) shall mention in its technical proposal on how the **warranty services** shall be ensured at the delivery locations.
- 4.4. In case of replacement of product/part due to manufacturing defect successful bidder(s) shall ensure the product should be of similar specification. The successful bidder(s) shall support in resolving all the warranty obligations which come across during the warranty period and supply of material issues, if any.
- 4.5. Bidder(s) shall support in providing maintenance facilities for electric cycles wherever deployed. However, bidder(s) should intimate the location of existing dealerships. (Bidders may use their own format).
- 4.6. The selected bidder(s) shall provide necessary support in replacement of battery at end of life with proper disposal of existing battery. The bidder(s) shall mention in its technical proposal on how the used/depleted batteries shall be disposed post end of

- life or any replacement during warranty period as per the Government norms at that point of time. Beyond, the period of three (03) years, the bidder(s) shall ensure to attend service calls on chargeable basis and ensure safe disposal of battery and other electronic parts as may be required.
- 4.7. Service Camps: During the first year of operation, successful bidder(s) shall provide three (03) free maintenance service camps at different locations (~25 locations) of each district in coordination with CESL's client as per the schedule mentioned in this document under section 6.5 (B). (Location of the camps to be discussed with CESL and its client during the course of the project). The bidder shall include the maintenance schedule in its technical proposal.

## **Example of tentative schedule for a single district:**

	3 months			6 months			12 Months						
	Locat	Locat	Locat	Locati on "n"	Locat	Locat	Locat	Loca n "n'		Locat	Locat	Locat	Locati
	ion 1	ion 2	ion 3	on n	ion 1	ion 2	ion 3	n n		ion 1	ion 2	ion 3	on "n"
Distr													
ict 1													
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4.8. The successful bidder shall inform CESL and its client 15-20 days prior to scheduling the camp for arranging/ ensuring appropriate and timely participation from end beneficiaries.

#### 5. Dashboard and Escalation Matrix for Complaint Handling Mechanism

- 5.1. The successful bidder(s) shall develop a complaint handling mechanism having the following:
- a customer service helpline number for calling, SMS and WhatsApp enabled during the business hours along with a dedicated email address for customer queries/ complaints etc.
- The bidder(s) must ensure at least 2 workmen to address the complaints/ queries during the business hours.
- . The bidder(s) shall mention how it will facilitate/setup complaint handling mechanism in its technical proposal.
- The successful bidder(s) shall develop and maintain a dashboard for addressing and resolving complaints from end users and the admin access to the dashboard must be with the CESL as well. A monthly resolution report to be submitted to CESL covering all the necessary details of resolution of maintenance/ warranty complaints raised by end user, daily usage, total resolution time of complaints, and other parameters affecting their economic activities.
- 5.2 The successful bidder(s) shall develop a robust complaint handling mechanism having different levels of transfer customer conversations to team members who can resolve them quickly speeding up the overall resolution process and boosting customer

satisfaction. A representative escalation matrix is provided below for reference (Bidder shall develop their own with highest authority being CESL):



#### 6. Adhere to SLAs- ALL LOTS

- 6.1. The turn-around time for repairs should be in line with SLA mentioned at **Section 6.5.** It is the Bidder(s) responsibility to ensure that there are sufficient number of dealerships to cater to the volume of electric cycles planned to be introduced in each district and adhere to the SLA's.
- 6.2. The successful bidder(s) will be penalized at delay over and above the defined SLAs, in the event of defined SLA's not being adhered to as mentioned in **Section 6.5.**

#### 7. Logo, Packaging and Unique Identification Number:

- 7.1. The electric cycle box/carton shall be as per statutory requirements of Weights & Measurement Act. In addition, information related to weight of the electric cycles, manufacturing location, MRP etc. are to be clearly mentioned by the bidder(s) on the box/cartons. Further, the bidder(s) shall comply with all the statutory compliances, pertaining to The Legal Metrology Act 2009 & The Legal Metrology Act (Packaged Commodities Rules) 2011.
- 7.2. The successful bidder(s) shall provide a tamper proof laser printed logo of CESL at the main frame of the electric cycle and QR code having details of bidders helpline no., details of electric cycle and its operating manual(pictorial self service manual in Hindi ,English or any other local language as specified by CESL during the project period). The design of the logo shall be provided by CESL, separately.
- 7.3. Each electric cycle shall have its own Unique Identification Number (UIN) in the form of OEM CODE: MFG YEAR: MFG MONTH: SL. NUMBER

- 7.4. Each electric cycle shall have a self-service manual Easy to understand colorful pictorial representations for self-assembly, repair and easy maintenance. The manual as well as video shall be in Hindi ,English or any other local language as specified by CESL during the project period. A QR Code for the video shall be provided in the manual for easy reference.
- 7.5. Indelible labeling mentioning batch no., UIN: Successful bidder(s) has to emboss or use indelible labeling to mention Batch No. and/or product UIN on the electric cycles as well as on box/carton.
- 7.6. The labels/packaging may be physically inspected during the pre-dispatch inspection of electric cycles.
- 7.7. Leaflet The bidder(s) shall include a leaflet entailing relevant information about the electric cycle. The leaflet shall contain installation instructions, details about electric cycle parts and its charging. Additionally, DOs & DONTs of electric cycle usage is to be provided along with each product. Bidder(s) has to share the content of the leaflet with CESL and take prior approval before printing and distribution.
- 7.8. Customer Care: Printing of successful bidder(s) customer care number, WhatsApp and email id on the box and leaflet is compulsory.
- 7.9. The electric cycle shall be provided in a single-color theme only (Blue PANTONE P 115 14C). CESL may ask successful bidder(s) to provide any other colour based on its client's requirements, well in time and vendor needs to accommodate the same.



**PANTONE P 115 - 14C** 

## Additional Services required for LOT 1- Muzaffarpur, Bihar

- 1. GPS as a Service: Bidder is to deploy electric cycles with provision of GPS as a service for a period of one (01) year from the date of delivery. The data from the device shall be the property of CESL and post the project period, the bidder may discontinue the GPS service and take back the devices. Key responsibilities of the selector vendor are as follows:
  - Appointing one Nodal person for co-ordination work with CESL (or its appointed agency) for the GPS service during the complete period of requirement.
  - Installation and maintenance of the 100% GPS hardware, software and all other GPS requirements.
  - Removal of GPS devise in the 3<sup>rd</sup> maintenance Schedule from all the bicycles.
     CESL requires GPS as a service and post removal selected bidder (s) have full authorization of the GPS device for its future usage.
  - GPS devices to be installed properly in the electric bicycles, to ensure the minimum wear and tear during the usage and climatic conditions (sunlight/rain/dust).
  - Proper security measure to avoid any unauthorized access/breakage etc.
  - Ensuring proper communication of GPS devise all the time with the selected bidder's server for data collection.

- In case of any issues in auto data transfer (communication) or in the GPS devise, selected bidder (s) to ensure the resolution of issue either from the backend or on-site (if required) and getting the data downloaded manually till the resolution of the issue.
- In case of any fault in GPS devise beyond repair, replacement with no additional cost to CESL during the defined period.
- Keeping records of the data collected for a period of minimum 2 years or as confirmed by the CESL. Post confirmation by CESL, destroying of data as per the applicable laws of the land.
- Maintaining dashboard for access of the data downloaded from the GPS and Providing dashboard access rights to CESL or any of its authorized agency.
- Periodically (weekly/fortnightly/monthly) providing 100% complete data or in any MIS (Management Information Sheet) format prescribed by the CESL.
- Ensuring help/training in understanding data and providing any tools (software etc.) required for analysis of GPS data.
- All data collected shall be the property of the CESL and selected bidder (s)
  neither use data nor share it with any other party, without taking prior written
  permission (with purpose) from the CESL.
- Selected Bidder shall be fully responsible for the Security of the GPS data which contains personal data of the usage/movement of the beneficiaries.
- Purpose of installation of GPS is to do the impact analysis on different parameters for the selected beneficiaries and CESL will appoint agency for the same. Selected bidder to ensure proper Co-ordination with the Impact Assessment (IA) agency appointed by the CESL for all matters related to GPS and its day-to-day operations.
- Selected Bidder require to bear all expenses related to providing GPS service (hardware, software, communication etc).
- Separate prices require to be quoted for GPS as a service in the prescribed bid format.
- CESL has all the rights to reduce/increase the number of electric bicycles with GPS services and shall intimate the selected bidder (s) before the delivery of electric bicycles at the designated locations. Accordingly, payments will be made as per the actual GPS services availed.
- Any other requirement from CESL for ensuring the proper impact analysis.
- 2. Data Collection: The bidder shall provide GPS data on weekly/fortnightly/monthly basis to CESL as per agreed terms. The bidder shall maintain a dashboard for the same. List of few essential parameters to be considered for collection data from GPS enabled e-bicycles are:
  - Lat Long
  - Historical Location Data: Past locations and routes taken by the vehicle over a specific period.
  - Time Stamp
  - Packet Counter

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- Speed
- SOC
- 2 digital I/O
- GSM Signal Strength
- IP protection
- No. of GPS Satellites
- Sleep Mode
- Active GSM Provider
- Trip and total odometer
- Frame number
- Low Battery
- 3. Training SHG Women: The successful bidder shall educate the SHG Women on the functionality, usage, maintenance and operations of the electric cycles through different methods like in personal sessions, online sessions or manuals etc as communicated by CESL. Bidder shall facilitate in training the SHG women in the following:
  - Complete operation of the electric cycle including assembly, technical aspects, battery charging optimization, periodic maintenance, warranty services, spares, use of tool kit etc. (Through a proper training module in Hindi, English or any other local language)
  - Facilitate interested SHG women to operate their own repair and maintenance shops for their community in the future. Ensure time to time skill upgradation of the SHG women.
  - 4. Support during Impact Assessment: The bidder is required to support CESL in carrying out impact assessment related activities in Muzaffarpur by assuring that all GPS devices are active during the project period and in case of any fault the same is rectified/replaced at the earliest.
  - 5. **Device Collection:** Post the impact assessment, the bidder is required to collect and take back the GPS devices from all 500 electric cycles during the last periodic maintenance.

#### 6.4 PRODUCT SPECIFICATION – ALL LOTS

The desired functional and technical specifications of electric cycles (applicable in Indian conditions) have been mentioned in this section of the document. However, the intent is not to specify and capture all the aspects of design and installation associated with electric cycles mentioned herein. It shall be the obligation of bidder(s) that all the systems, sub-systems and equipment's/devices shall conform in all respect to high standards of engineering, design and workmanship, and shall be capable of performing continuous commercial operation as per best industry standards.

The functionality and specification of the electric cycles (unless otherwise mentioned in this document) need to be in accordance with the "Central Motor Vehicles Rules, 1989" of Government of India as per the below mentioned information:

- (a) vehicle is equipped with an electric motor having thirty minute power less than 0.25 KW;
- (b) maximum speed of the vehicle is less than 25 km/hr;
- (c) vehicle is fitted with suitable brakes and retro-reflective devices, i.e. one while reflector in the front and one red reflector at the rear;
- (d) unladen weight (excluding battery weight) of the vehicle is not more than 60 kg;
- (e) in case of pedal assisted vehicle equipped with an auxiliary electric meter, in addition to above, the thirty minute power of the motor is less than 0 .25 KW, whose output is progressively reduced and finally cut off as the vehicle reaches a speed of 25 km/hr, or sooner, if the cyclist stops pedaling.

#### Technical Specifications of Electric Cycles - Cargo

<del>Parameter</del>	Cargo electric cycle
Motor	
Type	Brush Less DC (BLDC)
Capacity	Less than 250 W with IP65 protection
Certification	As per IS 1391 (PART 2): 2018 or equivalent international standard
Battery- LFP Type	e having minimum 2000 charging cycles
Type	Detachable Rechargeable Lithium ion battery (LFP) with IP65/ IP67 protection
<b>Battery Capacity</b>	440 Wh having minimum range of 40 km in throttle mode
Charging rate	<del>0.2C</del>
Charger Type	36V/2A, Input 230V AC - Waterproof Charging Pin (IP 65 / IP67 Protection)
<b>Battery Warranty</b>	3 years with battery degradation of not more than 2.5% annually
Certification	IP 65 / IP67 Protection Certifications as per IS 16046 / AIS 156 or equivalent international standard
Electronics	
Display and Controller	Displaying On/Off, battery level, speed modes etc.
Cabling	Internal with IP65 / IP 67 protection
E-Braking	E-brake cut off (cut off power supply while braking)
	Brakes and Reflectors and other equipment
Front wheel	<del>Disc Brake</del>
Rear wheel	Disc / Drum brake
Front reflector	One white reflector (to be placed as per industry standards)
Back reflector	One red reflector (to be placed as per industry standards)
Indicators	LED Type (preferably orange) - Left - Right Indicators (Rear)

<b>Parameter</b>	Cargo electric cycle			
<b>Headlights</b>	LED Type - Front (On Mudguard)			
Electric Horn	On Handle and sound range between 83-112db			
<del>Locking</del>	Ignition Cut off			
<b>Mechanism</b>	<del>ignition out on</del>			
	Other Components			
<b>Frame</b>	Steel tubes - 2039 (parts 1 to 3): 1991			
Frame Type	UNISEX- Frame design Suitable for women			
Rim Type	Double wall alloy			
Rim size	24" X Minimum 1.9"			
Gear	Single speed			
Fork	Spring Type Suspension - Testing to be done as per EN 15194:2017 (E)			
TOIR	or equivalent international standard			
Handlebar	Testing to be done as per EN 15194:2017 (E) or equivalent			
Handiebar	international standard			
Certification	All test certificates to be provided by NABL certified Labs			
Saddle (Wide)	Extra Foam and Wide seat with - Size- 24.1 cm x 29.2 cm (+/- 10%)			
Max Speed	<del>25 kmph</del>			
Unladen weight of	ef <60 kg			
the cycle	<del>200 kg</del>			
<del>Payload</del>	<del>120 kg</del>			
<del>Tyre</del>	Nylon tube tyre			
	Steel - Front and Back			
<b>Mudguards</b>	Weight and dimensions: Min 500 g or equivalent			
maagaarao	Front length: Min 635 mm (1 stay) or equivalent			
	Back length: Min 1147 mm (2 stays) or equivalent			
Basket/ Carrier	Steel - Front Basket  L X W X H- Minimum 13"X7.2"X8"  Sample Image			
	Steel - Long tail carrier and front load basket as per industry standards			
<del>Lock</del>	External number chain lock			
Cycle Stand	As per industry standards			
Comprehensive Warranty on Product	3 Years (motor, controller, frame, fork, battery)			

Parameter	Cargo electric cycle
Motor	
Туре	Brush Less DC (BLDC)
Capacity	Less than 250 W with IP65 protection
Certification	As per AIS 041 or equivalent international standard
Battery- LFP Type with key lock havi	ng minimum 2000 charging cycles
Туре	Detachable and Lockable-Rechargeable Lithium-ion battery (LFP) with IP65/ IP67 protection
Battery Capacity	Type: Detachable with lock- Rechargeable Lithiumion battery (LFP) with IP65/ IP67 protection Minimum 440 Wh having a minimum range of 40 km in throttle mode.
Charging rate	0.2C
Charger Type	2A DC Voltage – Waterproof Charging Pin (IP 65 / IP67 Protection)
Battery Warranty	3 years with battery degradation of not more than 15% after 3 years.
Certification	(i) IP 65 / IP67 Protection (ii) Certifications as per IS 16046 or AIS 156 or equivalent international standard
Electronics	
Display and Controller	Displaying On/Off, battery level, speed modes etc.
Cabling	All exposed cabling / connectors should be IP65/67
E-Braking	E-brake cut off (cut off power supply while braking)- Testing to be done as per EN 15194:2017 (E) or equivalent international standard
Brakes and Reflectors and other equ	ipment
Front wheel	Disc Brake
Rear wheel	Disc / Drum brake
Front reflector	One white reflector (to be placed as per safety standards)
Back reflector	One red reflector (to be placed as per safety standards)
Indicators	LED Type (preferably orange) - Left - Right Indicators (Rear)
Electric Horn	On Handle and sound range between 83-112db
Locking Mechanism	Ignition Cut off with key
Other Components	
Frame	Steel / Alloy frame. Test Certificate as per EN 15194 :2017 (E) or equivalent international standard.

Frame Type	Female friendly frame(Saree clad rider). Bidder to provide signed copy of drawings in the technical proposal. The drawings should be signed by a person with the proper authority to sign documents that are binding on the manufacturer.
Rim Type	Double wall alloy with Spokes- Testing to be done as per EN 15194:2017 (E) or equivalent international standard
Rim size	24" X Minimum 1.9"
Gear	Single speed
Fork	Spring Type Suspension - Testing to be done as per EN 15194:2017 (E) or equivalent international standard
Handlebar	Testing to be done as per EN 15194:2017 (E) or equivalent international standard
Chain	Chainset along with Chainguard
Spokes, Chain, Pedal, Seat, Brakes	Test Report as per EN 15194 :2017 (E) or equivalent international standard
Stand (Prop and Centre)	Test Report as per EN 15194 :2017 (E) or equivalent international standard
LED Headlight	Lighting to be as per EN 15194 :2017 (E) or equivalent international standard. To be placed at the front of the electric bicycle and should be adjustable.
Saddle (Wide)	Extra Foam and Wide seat with - Size- 24.1 cm x 29.2 cm (+/- 10%)
Max Speed	25 kmph
Unladen weight of the cycle	<60 kg
Payload	120 kg
Tyre	Nylon tube tyre
Mudguards	Steel - Front and Back Weight and dimensions: Min 500 g or equivalent Front length: Min 635 mm (1 stay) or equivalent Back length: Min 1147 mm (2 stays) or equivalent
Basket/ Carrier	Steel - Front Basket  L X W X H- Minimum 13"X7.2"X8"  Sample Image  Carrier -Heavy Duty Steel - Long tail carrier and front load basket
External Lock	External number chain lock

Comprehensive Warranty on Product

Unconditional comprehensive warranty shall include Battery, motor, controller (with display, throttle and pedal assist sensor), frame and charger.

Warranty shall be applicable in case the seal of the parts has not been tampered with wherever applicable.

Certificate Requirement	Testing Agency	Timelines**			
For the Product					
Test Certificate as per technical parameters mentioned in the Central motor vehicle rules, 1989 of Government of India** (described in Section 6 under 6.4 Technical Specifications)	For Indian Bidders:  ARAI/ ICAT or any Govt. of India Certified agencies  For International Bidders: Test report from their place of origin from a "Government certified testing agency".	The bidder has to submit the test certificate at the time of bidding along with the technical proposal.			
<b>Component Wise Test Reports</b>					
Frame- Test Report as per EN 15194 :2017 (E) or equivalent international standard.					
Fork- Test Report as per EN 15194 :2017 (E) or equivalent international standard.					
Handlebar - Test Report as per EN 15194 :2017 (E) or equivalent international standard	BIS/ NABL or any Govt of India accredited	The bidder has to submit the test certificate at the			
Spokes, Chain, Pedal, Seat, Brakes - Test Report as per EN 15194 :2017 (E) or equivalent international standard	testing agencies or international testing agencies	time of bidding along with the technical proposal.			

Stand (Prop and Centre)- Test Report as per EN 15194 :2017 (E) or equivalent international standard
LED Headlight: Test Report as per EN 15194 :2017 (E) or equivalent international
Motor- Test Report as per AIS 041 or equivalent international standard
Battery- Test Report as per AIS 156 or IS 16046 (Part 2): 2018/ IEC 62133-2:2017 or equivalent international standard

#### \*\*Note for Bidders:

- (i) Bidders participating in the procurement process for electric bicycles are required to submit test certification as per Govt. of India's Central Motor Vehicle Rules 1989 from government recognized agencies in India or outside India. If this certification is not available at the time of bid submission, bidders must provide documentation proving that they have applied for the test certificate from a government-recognized agency.
- (ii) The electric bicycle components should comply with the test requirements mentioned in EN15194:2017 (E) or equivalent international standards for electric bicycles.
- (iii) Relevant certification of components mentioned in the table above is mandatory and to be provided at the time of bidding along with the technical proposal. If this certification is not available at the time of bid submission, bidders must provide documentation proving that they have applied for the test certificate from a government-recognized agency.

In cases where certification is not available at the time of bid submission, bidders must provide proof of application for the test certificate from a government-recognized agency. Following the award of the work, bidders shall submit the final certificate within 28 days before signing of agreement. However, failure to comply with this requirement will result in disqualification of the lowest bidder (L1), with the letter of award being transferred to the next lowest bidder (L2) and subsequent bidders if necessary.

The electric cycles before delivery, should meet all the regulatory and statutory norms and obtain all the approvals/NOCs from appropriate Indian Govt. agencies such as ICAT/ ARAI/ NABL/ AIS/ BIS etc.

Rear view mirrors, mobile holder, mobile bag, water bottle holder, additional seat, insulated bag, additional bag etc. are not part of the standard product. These should be provided at additional cost (as per actuals).

6.5 Service Level Agreement, Liquidated Damages, Penalty and periodic Maintenance for Electric Bicycles- ALL LOTS

## A. The bidder to follow the following SLA:

S. No	Service Level Parameter Description	Parameter Service Validation Description	
1	Timely Delivery of Electric bicycle in working conditions:  The bidder must ensure the electric bicycles are delivered as per scheduled date of delivery at designated place stated in LoA/ purchase order.  The electric bicycles to be equipped with agreed design and accessories.	<ul> <li>bicycle to the client locations within 90 days of the issuance of the LoA/purchase order by CESL (in multiple lots) or as communicated by CESL before the delivery.</li> <li>Copy of LoA/PO /intimation, Challan from Client: Delivery challan to be signed by representative of OEM and Client.</li> <li>Invoice and warranty card (describing the T&amp;C's of the warranty) to be delivered to the end user along with the electric bicycles.</li> </ul>	0.5 % of the contract value per week or part thereof., with a maximum amount of liquidated damages @ 10% of the contract price. As defined in GCC 27.1, Section 8.
S. No	Service Level Parameter Description	Service Validation Description	Penalty*
	<ul> <li>Helpline         Numbers and         business hours: -</li> <li>A customer         service helpline</li> </ul>	<ul> <li>The bidder must ensure at least 2 workmen assigned to register the ticket during the business hours.</li> <li>The Ticket(s) to be registered/recorded and to be shared with the dealer/technician/bidder/concerning authority.</li> </ul>	Non-working     of complaint     handling     mechanism     for more than     3 working

2	number for calling, SMS and WhatsApp to be enabled during the business hours. A dedicated email address for customer queries/ complaints, should also be enabled.  • "Business Hour" between 900 to 1800 hours IST, excluding Sundays and public holidays.	<ul> <li>The complaint must be acknowledged withing 2 hours.</li> <li>The resolution time to be noted by client and selected bidder must comply to the SLA mentioned at S.No. 3 below.</li> <li>Develop MIS Dashboard for complaints handling mechanism and may integrate with EESL/CESL's system.</li> <li>Selected bidder shall submit a quarterly report of complaints registered and resolution timelines to CESL and Client in the format provided by CESL/Client from time to time.</li> </ul>		days during the project period:  1st instance-INR 2000/- 2nd instance-INR 5000/- 3rd and subsequent instances: INR 10,000/-per instance  Multiple instances of non-compliance may lead to encashing of 100% of BG
	Warranty, Repair, and after sale	Severity	Timelines	<ul> <li>In case the bicycle is to</li> </ul>
3	<ul> <li>services of electric bicycle: -</li> <li>Doorstep delivery of warranty services to be provided to end user.</li> </ul>	High:  Electric Components not working.	Turnaround time to replace or repair an electric bicycle component should not be more than 5 days	be replaced: A penalty of INR 1000 per day per bicycle after the assigned time till the time vehicle is
	Based on the availability of technician, nearest dealership, and severity of the defect, the bidder to ensure timely replacement or repair of the electric bicycle or its component(s) under warranty.	Low: Non-Electrical Fault	Turnaround time to replace or repair an electric bicycle component should not be more than 6 days	replaced, will be charged.

	•	Replacement or repair of parts under warranty will be provided at no additional charges. The normal wear and tear related issues shall not be		component is replaced, will be charged.
		a part of warranty services and resolution for the same can be provided on actuals.		
4	•	Periodic Service and Maintenance	The second secon	
		Schedule for	days from completion of service duration schedule as per <b>Point B</b> below	delay or part
		<b>Electric Bicycles</b>		thereof.
5	•	GPS as a Service- Only for 500 electric cycles in Muzaffarpur	<ul> <li>The bidder must ensure the electric bicycles are delivered as per parameters defined in this document for monitoring of electric cycles in Muzaffarpur.</li> <li>The bidder has to ensure the accuracy of the</li> </ul>	for downtime of more than 5 Business
	•	The electric bicycles under LOT I to be equipped with GPS devices. The successful bidder shall provide GPS service for a period of one (01) year from date of	data captured through the devices (i.e location, data update frequency, geographical area, battery consumption, etc.)  The bidder has to ensure full uptime (excluding period of scheduled maintenance)  Any downtime issue to be resolved in 48 hours.  Successful bidder shall maintain/develop a dashboard for the 500 electric cycles and	<ul> <li>2<sup>nd</sup> instance-INR 5000/-</li> <li>3<sup>rd</sup> and subsequent instances:         INR 10,000/-per instance</li> </ul>
		delivery.	<ul> <li>share the admin rights with CESL during the project period.</li> <li>Data shall be collected on weekly/ fortnightly basis and submitted to CESL as and when asked.</li> </ul>	Multiple instances of non-compliance may
5		Awareness of Warranty services at the time of delivery: -	<ul> <li>The bidder to mention the terms and conditions of the warranty on the warranty card.</li> </ul>	
	<u> </u>	y-		_

Awareness of the warranty services and its timeframe to be given to the end user.	The timeframe of servicing of different components of electric bicycle to be mentioned clearly in the warranty card.				
*The maximum amount of penalty shall be: 10% of the contract price.					

## B. Periodic Service and Maintenance Schedule for Electric Bicycles

SI. NO	JOBS /ACTIONS	1ST SERVICE 3 months	2ND SERVICE 6 months	3RD SERVICE 12 months
1	Whole cycle	С	С	С
2	Brake system	C,I & A	C,I & A	C,I & A
3	Wheels/ Mudguards	I & A	I & A	I & A
4	Handle adjustment	A, I	A, I	A, I
5	Chain/Crank/Pedal	A, I, L	A, I, L	A, I, L
6	Fork/ suspension	C, I,L	C, I,L	C, I,L
7	Tyre pressure (30-40 PSI)	I	I	I
8	Electrical switches/ Lights/ wire harness	I	I	I
	Nuts & Bolts (Fasteners)	Т	Т	Т
9	Rim/ Spokes	T & A	T & A	T & A
10	Battery functioning (cell voltage check, Capacity test)	I	I	I

A- Adjust, C-clean, L - Lubricate, I - Inspect & correct, T- Tighten

# NOTE: Even if the free maintenance service is not availed by the end user, the product warranty shall remain intact.

The Successful Bidder(s) shall ensure that turnaround time for handling minor and major complaints for the electric bicycles is as per the SLAs at Section 6.5. This is a mandatory requirement.

The bidder needs to provide doorstep repair and maintenance services to the end user during the warranty period as a part of the contract. The bidder needs to ensure that supplied electric cycle at the site should be complete in all respect with necessary toolkit.

In case of any delay from the successful bidder(s) in delivery and maintenance of the electric bicycle as per stipulated timelines in this document and penalty amount becomes due as per the penalty clauses above, CESL reserves the right to raise a demand for which the successful

bidder will have to make payment to CESL within 15 days of raising the demand in case of any delay CESL has the right to charge interest @1.5% per month or part thereof.

Penalty shall be recovered from the performance security/PBG submitted by the successful bidder without any maximum limit.

In case the demand is not paid within a stipulated duration, CESL has the right to recover the same by encashing the PBG as stated in PBG clauses.

#### **Periodic Maintenance**

- The selected bidder/s shall provide free periodic maintenance of electric cycle as defined in this tender for a period of one (01) year from the date of delivery. The cost shall be borne by the bidder(s) and should be included in the BOM.
- The maintenance may be extendable after the completion of one (01) year. It is at the sole discretion of the end user to avail the services of the selected bidder(s) for continuing the maintenance at appropriate market rate and mutually agreed at that point of time.
- It will be the sole responsibility of the end user to avail the maintenance services as defined in this tender after the initial period of one year.

# 7. Delivery and Completion Schedule

The delivery period required for supply of electric bicycles would be within 90 days from the release of LoA/purchase order by CESL.

Item No.	Description of Goods or Related Services	Delivery Schedule (Duration)	Location	Required Arrival Date of Goods or Completion Date for Related Services
LOT 1	Electric Bicycle Cargo	90 Days from the release of LOA/purchas e order by CESL	Patna, Vaishali and Muzaffarpur, Bihar	Within 90 Days
LOT 2	Electric Bicycle Cargo	90 Days from the release of purchase order by CESL	Palakkad and Kannur, Kerala	Within 90 Days
LOT 3	Electric Bicycle Cargo	90 Days from the release of purchase order by CESL	Vidisha (Madhya Pradesh), Kuppam (Andhra Pradesh)	Within 90 Days

## 8. Drawings

NA