



Amendment No. 5

Ref: CESL/06/2022-23/ebuses/GC-2/222309007/Amdt-5

Date: 02.12.2022

To,	
M/s	

<u>Subject:</u> Amendment no-5 for "Request for Proposal Selection of bus operator for Procurement, Operation and Maintenance of 5,690 Electric Buses and development of allied electric and civil infrastructure on Gross Cost Contracting (GCC) under National E-Bus Program (NEBP)-Phase-1

References:

- NIT/Bid Document No. CESL/06/2022-23/ebuses/GC-2/222309007 dated 22.09.2022 (E-Tender Id-1897)
- Amendment no-1 dated: 06.10.2022, Amendment no-2 dated:04.11.2022, Amendment no-3 dated: 11.11.2022 Amendment no-4 dated 21.11.2022

Dear Sir/Madam,

The following clarification to above mentioned RfP is hereby authorized: -

- 1. The amended Volume-I, Volume-II and Volume-III of Section-4 of RfP has been placed.
- 2. The Bid Schedule mentioned in RfP/Tender Document is amended as below:

Sr. No.	Description/Query/Clarification	As per RfP and its subsequent amendments	Amended as
1.	Last date &time for downloading RfP from website	From 21.09.2022 to 05.12.2022 (Upto 14:00 Hrs) IST	Extended upto 15.12.2022 (Upto 14:00 Hrs) IST
2.	Online Bid Submission period	From 21.09.2022 to 05.12.2022 (Upto 14:30 Hrs) IST	Extended upto 15.12.2022 (Upto 14:30 Hrs) IST
3.	Techno-Commercial E-bid opening date & Time	From 21.09.2022 to 05.12.2022 (Upto 15:00 Hrs) IST	On 15.12.2022 at 15:00 Hrs IST

Other terms and conditions of subject tender remain unchanged.

Thanking You

Sd-/ For and on behalf of CESL (A wholly owned subsidiary of EESL)



Volume 1 – Instructions to Bidders

Request for Proposal

for

Selection of bus operator for Procurement, Operation and Maintenance of 6,465 5690 Electric Buses and development of allied electric and civil infrastructure on Gross Cost Contracting (GCC) under National E-Bus Program (NEBP) – Tender 1

THE TERMS AND CONDITIONS OF THIS SECTION (VOL 1) WILL PREVAIL IN CASE OF INCONSISTENCY WITH ANY OTHER PART OF THIS TENDER.



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1. Aim and Objectives

CESL aims to augment public sector bus fleet with a view to strengthening, modernizing and greening public transport in India. An increase in the number of buses on Indian roads will help to enhance economic development commuter, local production, air pollution, climate change and employment. Crucially, changing to eBuses will reduce fossil fuel import bills. To this end, CESL on behalf of State Transit Authorities (also referred to as Authorities or State Transport Corporations in this Tender), is floating a tender for "*Selection of Bus Operator for Procurement, Supply, Operation and Maintenance of 6,465 5690 buses*". Buses shall be fully built electric buses (eBuses) of 7m, 9m, and 12m length and allied electrical & civil Infrastructure under Gross Cost Contract (GCC) Model (the "Project").

2. Background

India is at the cusp of an e-mobility revolution. The Government of India (GoI) is moving towards accelerated adoption of EVs to cut down its fuel import bills, carbon emissions and air pollution. It has announced a target to reach 30% EV adoption by 2030.

Convergence Energy Services Limited (CESL), a subsidiary of EESL recently discovered the lowest ever prices for the biggest ever tender of 5,450 electric buses in 5 cities through a Grand Challenge method under the FAME subsidy program. The rates discovered are 27% lower than diesel and 25% lower than CNG without subsidy. This was achieved by aggregating demand and floating a unified tender with standardized parameters and contract terms.

Based on this outcome, CESL has been requested by NITI Aayog and MoRTH to scale up the model and to play the role of program manager to deploy eBuses under a "National Electric Bus Program (NEBP)". The NEBP will seek to aggregate demand from bus transport agencies and conduct tendering on an aggregated basis. CESL will also support the creation of infrastructure to operate 50,000 eBuses in a phased procurement manner across Indian cities.

Based on the above, consultations with State Transport Undertakings (STUs) vide dated 8th July 2022 with the participation of MoRTH was conducted. A number of industry consultations have been conducted. This Tender is the result of demand aggregated by CESL through an Expression of Interest (EoI) floated by CESL inviting STUs to provide their demand.

The EOI was floated for Public Transport Agencies including State Road Transport Undertakings (SRTUs) on 12 July 2022. The last date for submission of proposals by the eligible entities was on 1 August 2022, which was extended to 10th August 2022.

7 states/cities have subscribed to the NEBP Tender 1 (this tender) for intracity, mofussil, and intercity services, later renamed to Type I, Type II and Type III buses. The states that expressed demand are Delhi, Telangana, Haryana, Gujarat (Surat), Arunachal Pradesh, Kerala, and Karnataka (North-West).

Submissions based on the EoI have been reviewed and thoroughly diligenced.

65 entities have qualified for participation in this Tender for eBuses on a GCC model under a unified tender with CESL as the Program Manager.



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2.1. About CESL

Convergence Energy Services Limited (CESL) is a wholly owned subsidiary of Energy Efficiency Services Limited (EESL), under the administration of Ministry of Power, Government of India headquartered at New Delhi. CESL focuses on green and electric mobility and carbon credits.

3. Summary of Scope of Work

This RFP has been created for the deployment of 7m, 9m and 12m electric buses on a GCC basis through the National Electric Bus Program Concession Agreement (NEBP – CA) between the Selected Bidder and the participating Authority. Fleet level annual assured kms shall be calculated at fleet size multiplied by Guaranteed Availability (95% as defined under Clause 20.3.3 of NEBP-CA) x 365 (annual operational days). The annual assured kms and period of Concession Agreement ("Agreement") for different types of buses is provided below.

		Annual Assured	Concession Period (whichever is earlier)
Lot	Bus Type	Kms	concession remote (whichever is earlier)
Type-1	I* buses		
Lot 1	12m Low Floor AC Bus	70,000	12 years or 10 lakh kms
Lot 2	12m Low Floor Non-AC Bus	70,000	12 years or 10 lakh kms
Lot 3	12m Standard Floor AC Bus	70,000	12 years or 10 lakh kms
Lot 4	9m Low Floor AC Bus	62,500	12 years or 09 lakh kms
Lot 5	9m Standard Floor AC Bus	70,000	12 years or 10 lakh kms
Lot 6	7m Standard Floor AC Bus	70,000	12 years or 10 lakh kms
Type-	III** buses		
Lot 7	12m Standard Floor Non-AC Bus	1,57,500	10 years or 16 18 lakh kms
Type-]	II*** buses		
Lot 8	12m Standard Floor Non-AC Bus	1,22,500	10 years or 12.5 lakh kms
Г Т 1	finition on man AIC, 050		

*Type I definition as per AIS: 052

**Type III definition as per AIS: 052

***Type II definition as per AIS:052

A. Scope of Work of the Selected Bidder(s):

- *a*) The Bidder shall procure finance for, and at its sole cost and expense, the Leasing, Procurement, Supply, Operations and Maintenance of the Buses as per the Procurement/Deployment Schedule provided hereto for providing the services in accordance with the Deployment Plan, Applicable Laws, Applicable Permits, Good Industry Practice and the terms and conditions of this Agreement.
- *b*) Selected Bidder(s) will supply buses, conforming to the Specifications and Standards, in accordance with the provisions of this RFP, under GCC Model, with a minimum fleet availability factor of 95% throughout the concession period.
- c) Bidder(s) shall procure at their cost and expense, all Operator Applicable Permits from Government Instrumentalities including but not limited to the certificate of registration, certification of fitness from the relevant Regional Transport Office (RTO) having jurisdiction over the Project Buses and shall Operate and Maintain the Buses in accordance with the terms and conditions of this Agreement at the Bidders own cost.
- *d*) Selected Bidder(s) will be responsible for Operation and Maintenance of Buses, including engaging all manpower, personnel, drivers, labour, etc., as may be required to be deployed by it for implementation of the Project, under GCC basis, in accordance with the provisions of this RFP.



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- e) Selected Bidder(s) will be responsible for setting up of Bus Maintenance Facilities at depots and downstream infrastructure beyond HT metering level (6/11/22/33 KV) 0.415 kV provided at the depot site by the Authority, including cost of charging equipment, required necessary transformer and other civil cost for installation of required charging infrastructure for day- to-day operations and maintenance of the buses. Separate metering at LT/HT level for ancillary load for administration and maintenance activities performed by the bidder and sub-metering for Authority related activities will be set up at each depot site.
- *f*) Selected Bidder shall operator eBuses with a minimum of 25% women drivers, 25% women staff at the depots and 25% women workforce at the plants. Bidder shall ensure appropriate safety conditions to enable this.
- g) GCC bids to be inclusive of electricity cost (inclusive of fixed charges, cess, surcharges taxes and any other charges levied by DISCOM) as per local DISCOM charges of the cities/states in each Lot. The operator is responsible for the payment of electricity charges at the HT metering level to the local DISCOM for operation of buses under the concessionaire agreement (and power consumption from operations of the maintenance depot and use of equipment and machinery). The Authority will not be responsible for payment of any electricity charges related to operations and maintenance of buses. The Authority will bear any changes (increase or decrease) in electricity tariff or other related charges including fixed fee, cess, taxes etc up to the allowable power consumption post the bid submission date.
- h) However, for Lot 3, Lot 5, and Lot 7, where the fleet is distributed amongst multiple cities, GCC rates shall be inclusive of electricity cost with an assumed tariff of ₹ 6.5 per kWh is to be assumed for Lot 3, ₹ 5 per unit for Lot 5, and ₹ 6 per unit for Lot 7. The Authority of city/state that has higher electricity tariffs shall bear the difference in cost between the applicable electricity cost/landed cost of electricity and the rated electricity cost as mentioned for different Lots, provided that they fall in the range of the permissible power consumption as defined in clause 22.5.3 of the Concession Agreement.

The reconciliation of the differential electricity cost will be done as per the local DISCOM billing cycle based on actual receipts provided by the operator and invoices raised to the STU/Authority.

Electricity charges means complete electricity billing charges at HT metering raised by respective DISCOM of concerned Depot.

Participating City	Electricity tariff (landed cost including HT charges, taxes and other charges as levied by the local Discoms)
For Lot 3	
Haryana	INR 7.5 per unit
Surat	INR 6.5 per unit
For Lot 5	
Haryana	INR 7.5 per unit
Arunachal Pradesh	INR 5 per unit
Kerala	INR 6 per unit
For Lot 7	
Telangana	INR 6 per unit
Kerala	INR 6 per unit

In the interest of clarity, an example is provided below for illustration purposes:

Case 1: For Lot 3, the Authority of Haryana must pay differential of INR 1 per kWh. For Lot 5, the Authority of Haryana to pay differential of INR 2.5 per unit (up to the agreed efficiency level). In lot 7,



Participating City	Electricity tariff	Electricity paid by Bidder	Electricity paid by Authority
For Lot 3			
Haryana	INR 7.5 per unit	INR 6.5 per unit	INR 1 per unit
Surat	INR 6.5 per unit	INR 6.5 per unit	Zero
For Lot 5			
Haryana	INR 7.5 per unit	INR 5 per unit	INR 2.5 per unit
Arunachal Pradesh	INR 5 per unit	INR 5 per unit	Zero
Kerala	INR 6 per unit	INR 5 per unit	INR 1 per unit
For Lot 7			
Telangana	INR 6 per unit	INR 6 per unit	Zero
Kerala	INR 6 per unit	INR 6 per unit	Zero

since the base electricity tariff of Telangana and Kerala is the same, Authorities need not pay any differential payment.

Case 2: If tariff of Surat and Arunachal Pradesh is revised to INR 7.5 per unit and INR 6 per unit after closure of bids, Authority of Surat and Arunachal Pradesh shall pay the differential of INR 1 per unit (up to the agreed efficiency level). Similarly, if tariff of Telangana and Kerala is revised to INR 7 per unit after closure of bid, the Authorities shall pay the differential of INR 1 per unit (up to the agreed efficiency level).

Participating City	Electricity tariff	Electricity paid by Bidder	Electricity paid by Authority
For Lot 3			
Haryana	INR 7.5 per unit	INR 6.5 per unit	INR 1 per unit
Surat	INR 7.5 per unit	INR 6.5 per unit	INR 1 per unit
For Lot 5	-		
Haryana	INR 7.5 per unit	INR 5 per unit	INR 2.5 per unit
Arunachal Pradesh	INR 6 per unit	INR 5 per unit	INR 1 per unit
Kerala	INR 7 per unit	INR 5 per unit	INR 2 per unit
For Lot 7			
Telangana	INR 7 per unit	INR 6 per unit	INR 1 per unit
Kerala	INR 7 per unit	INR 6 per unit	INR 1 per unit

- *i*) The cost of any electricity consumed on account of (i) charging of the Buses requiring electricity in excess of the Allowed Power Consumption; (ii) the use of any other equipment, plant and machinery at the Maintenance Depot (apart from the Charging Infrastructure); and (iii) the Operations and Maintenance of the Maintenance Depot, shall be payable by the Bidder.
- *j*) Selected Bidder(s) shall set up operations for parking and charging facilities at Depot as per the depot locations provided in the table below, including opportunity charging infrastructure. Opportunity charging shall be available for a maximum period of 45 minutes for Type I & Type II buses and 60 minutes for Type III buses on a depot-in, depot- out basis, at the depot location as per schedule provided by Authority, with provision for adequate infrastructure for metering of consumption of electricity at each of the individual charging points. A detailed list of depots offered by Authorities is given for reference of the Bidders.
- *k*) Charging shall be fast charging and technical specifications are contained in Volume 3 of this Tender "*Technical Specifications for Type-I buses, Type- II buses and Type-III buses*".



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Depot details for Haryana

S. No	Depot Name	Type and Number of buses		No of buses	
		9m Standard Floor AC	12m Standard Floor AC		
1	Panchkula	25	25	50	
2	Ambala	10	40	50	
3	Yamuna Nagar	10	40	50	
4	Karnal	20	30	50	
5	Panipat	20	30	50	
6	Sonepat		50	50	
7	Rohtak		50	50	
8	Hisar		50	50	
9	Rewari	10	40	50	
10	GMCBL	50		50	
11	FMDA	30	20	50	

Depot Details for Telangana

Type-II	I Bus Services		
1	Warangal-I	12m Non-AC Standard Floor	50
2	Karimnagar-II	12m Non-AC Standard Floor	50
3	Nizamabad-II	12m Non-AC Standard Floor	50
4	Mahabubnagar	12m Non-AC Standard Floor	50
5	Nalgonda	12m Non-AC Standard Floor	50
6	Khammam	12m Non-AC Standard Floor	50
7	Suryapet	12m Non-AC Standard Floor	50
8	Siddipeta	12m Non-AC Standard Floor	50
9	Janagaon	12m Non-AC Standard Floor	50
10	Sangareddy	12m Non-AC Standard Floor	50
Type-I	Bus Services	· · · · · · · · · · · · · · · · · · ·	
11	Chengicherla	12m Non-AC Low Floor	80
12	Barkathpura	12m Non-AC Low Floor	80
13	Mehdipatnam	12m Non-AC Low Floor	80
14	Kacheguda	12m Non-AC Low Floor	80
15	Mushirabad-2	12m Non-AC Low Floor	80
16	BHEL	12m Non-AC Low Floor	100

Depot Details for Surat

S. No	Depot Name	Type of buses	No of buses
1	Palanpor	12m AC Standard Floor	75
2	Althan	12m AC Standard Floor	75
3	Magob	12m AC Standard Floor	75
4	Vesu	12m AC Standard Floor	75



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5	Bhestan	12m AC Standard Floor	75
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Depot Details for Arunachal Pradesh

S. No	Depot Name	Type of buses	No of buses
1	Itanagar/NRISBT	7m AC Low Floor	4
2	Namsai	9m AC Low Floor	2
3	Roing	9m AC Low Floor	1
4	Tezu	9m AC Low Floor	1
5	Pasighat	9m AC Low Floor	2

Depot Details for Delhi (Delhi Transport Corporation)

S. No	Depot Name	Type of buses	Bus Parking Capacity
1	Bawana	9m AC Low Floor	189
2	Ghumman Hera-I	9m AC Low Floor	137
3	Kharkhari Nahar	9m AC Low Floor	169
4	Dwarka -II	9m AC Low Floor	169
5	East Vinod Nagar	9m AC Low Floor	161
6	Rohini-III	9m AC Low Floor	169
7	Rohini-IV	9m AC Low Floor	150
8	Shadipur	9m AC Low Floor	157
9	Nangloi	9m AC Low Floor	150
10	IP Depot	9m AC Low Floor	195
11	Peeragarhi	9m AC Low Floor	117
12	Rajghat -I	9m AC Low Floor	195
13	Dichaon Kalan	9m AC Low Floor	117
14	Hari Nagar-I & II	9m AC Low Floor	493
15	Central Workshop Okhla	9m AC Low Floor	306
16	Vasant Vihar	9m AC Low Floor	404
17	GT Karnal Road	9m AC Low Floor	156
18	Kanjawala -I	9m AC Low Floor	150
19	Sarojini Nagar	9m AC Low Floor	130
20	Narela	9m AC Low Floor	156
21	Nand Nagri	9m AC Low Floor	156
22	Sriniwas Puri	9m AC Low Floor	169
23	Dwarka -8	9m AC Low Floor	169
24	Gazipur	9m AC Low Floor	150
25	Keshopur	9m AC Low Floor	156
26	Ambedkar Nagar	9m AC Low Floor	169
27	Tehkhand	9m AC Low Floor	169

* the final allotment of depot for 9-meter low floor AC E-buses will be made out of these depots at the time of finalization of tender.



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S. No	Depot Name	Type of buses	Bus Parking Capacity
1	Rohini sector 37- II*	12m AC Low Floor	140
2	Burari-I*	12m AC Low Floor	190
3	Kushak Nala Depot	12m AC Low Floor	280
4	Narela	12m AC Low Floor	250
5	Burari-II	12m AC Low Floor	200
6	Dwarka Sector 22	12m AC Low Floor	250
7	BBM-I	12m AC Low Floor	72
8	Okhla - IV	12m AC Low Floor	96
9	Dilshad Garden	12m AC Low Floor	90
10	BBM-II	12m AC Low Floor	60
11	Rajghat	12m AC Low Floor	96
12	Seemapuri	12m AC Low Floor	125
13	Kair	12m AC Low Floor	324
14	Dichaon Kalan - II	12m AC Low Floor	120
15	East Vinod Nagar	12m AC Low Floor	103
16	Shastri Park	9m AC Low Floor	80
17	Majlis Park	9m AC Low Floor	80
18	Welcome	9m AC Low Floor	32
19	Kohat Enclave	9m AC Low Floor	35
20	Rithala	9m AC Low Floor	105
21	Nangloi	9m AC Low Floor	60
22	Mundaka	9m AC Low Floor	60
23	Dwarka	9m AC Low Floor	48
24	Gadaipur	9m AC Low Floor	160
25	Chattarpur	9m AC Low Floor	60
26	Kapashera	9m AC Low Floor	80
27	Daurala	9m AC Low Floor	400

Depot Details for Delhi (Department of Transport)

*the final allotment of depot for 12-meter and 9-meter low floor AC E-buses will be made out of these depots at the time of finalization of tender.

Depot Details for Kerala

S. No	Depot Name	Type of buses	No of buses
Type-I B	is Services		
1	Ernakulam	9m AC Standard Floor	50
2	Kozhikode	9m AC Standard Floor	25
3	Thrissur	9m AC Standard Floor	25
4	Palakkad	9m AC Standard Floor	25
Type -II	Bus Services		
5	Ernakulam	12m Non-AC Low Floor	50
6	Kozhikode	12m Non-AC Low Floor	50
7	Trivandrum	12m Non-AC Low Floor	200
Type -III	Bus Services		
8	Kozhikode	12m Non-AC Standard Floor	100
9	Thrissur	12m Non-AC Standard Floor	25



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10	Palakkad	12m Non-AC Standard Floor	25
11	Trivandrum	12m Non-AC Standard Floor	100
12	Ankamali	12m Non-AC Standard Floor	100
13	Kannur	12m Non-AC Standard Floor	25
14	Kollam	12m Non-AC Standard Floor	25
15	Malappuram	12m Non-AC Standard Floor	25
16	Thodupuzha	12m Non-AC Standard Floor	25

- D Bidder shall quantify its GHG emissions from eBus manufacturing for all three Scopes -1, 2, and 3 as per the international defacto standard GHG Protocol. Bidder shall demonstrate efforts to reduce such emissions over the deployment period, including if necessary, purchase offsets. Should offsets be purchased, then they must use an internationally recognized methodology and ensure that the offset project is located in India.
- m) Buses shall be enabled with a uniform ITMS that is integrated between STUs, CESL/Central Agency, vehicles and Operators. Bidders shall support integration with existing or newly installed ITMS by the respective Authority including testing, debugging and calibration of OBITS data.
- The Selected Bidder(s) shall enter into a Management Services Agreement with CESL for the payment of service n) fees defined as Project Management Charges (PMC). Such Charges and Fees are together with their milestones are defined in scope of CESL clause (f).

B. Scope of Work of the Authority:

Authority shall provide adequate vacant land at the depot, free from encumbrances, along with road connectivity *a*) and right of way, upstream infrastructures including civil/electrical work and electric connection at available HT metering level (6/11/22/33 KV connection) including on-site sub-stations for stepping down voltage to 0.415 KV and all requisite licence/permissions for set-up and operation of maintenance depots, charging infrastructure, and parking of buses. The Authority shall handover peaceful and unencumbered possession of maintenance depots to the operator.

The following minimum depot infrastructure shall be provided by Authority:

- Adequate parking area (minimum 150 sq.m per bus including basic depot requirements, such as parking, workshops, staff amenities, administrative block, etc.) for parking of buses allocated to the depot.
- Depots with civil infrastructure facilities that include adequate space for office, security booths, medical facility and rest room for drivers, canteen, spare parts store, workshop sheds (for washing facilities, maintenance / service pits @ 2 pits per 50 buses). No additional charges for parking of buses or use of facilities will be levied on the bidder.
- Boundary wall: 2 m height with 0.6M railing.
- Provision for sanitary installations, external services connections, internal electrical connections, power wiring, telephone conduits, computer conduits, streetlight, signage, and septic tank.
- In case the Authority is unable to provide the above basic minimum specs, the Authority shall allow the same to be b) developed by the Bidder and its cost shall be reimbursed by the Authority on actuals. Further, at the discretion of the Authority, the Bidder shall be given additional time for the development of such basic depot infrastructure that is not provided by the Authority.



- c) The Authority shall provide a deployment plan for buses including operational routes and schedules in accordance with the provisions of the Agreement. The Authority shall provide schedules with opportunity charging for a period of 45 minutes for Type I & Type II buses and 60 minutes for Type III buses on a depot-in, depot-out basis, at depot location before prototype testing for the subsequent charger installation by the Bidder.
- *d*) Authority shall implement and adopt a uniform ITMS that is integrated between STUs, CESL/Central Agency, vehicles and Operators.
- e) Authority is not liable for electricity consumption costs incurred by the Operator for the operations and maintenance of buses. For Lot 3, Lot 5, and Lot 7 where lot bus fleet is distributed amongst more than one city/Authority, the Authority of city/state with higher electricity tariff will bear the differential cost (as explained with example under *Scope of Bidder(s)* section earlier) between the applicable electricity cost/landed cost of electricity and the quoted electricity cost (for city/state with lower landed electricity cost) up to the allowed power consumption (as defined in clause 22.5.3 of the NEBP-CA Concession Agreement). The reconciliation of the differential electricity cost will be done as per the local DISCOM billing cycle based on actual receipts provided by the operator and invoices raised to the STU/Authority. The permissible power consumption shall be 0.8 kWh/km for 7m AC buses; 0.85 kWh/km for 9 m non-AC buses; 1 kWh/km for 9m AC buses and 1.1 kWh/km for 12m non-AC buses; 1.3 kWh/km for 12m AC buses for Type-I buses, and 0.9 kWh/km for 12 m Type-III buses, trued annually to account for seasonal variations.
- *f*) Authority shall provide depot space for minimum of 50¹ buses per depot, including opportunity charging infrastructure. Opportunity charging shall be available for a maximum period of 45 minutes for Type I & Type II buses and 60 minutes for Type III buses on a depot-in, depot-out basis, at depot location as per schedule provided by Authority, with provision for adequate infrastructure for metering of consumption of electricity at each of the individual charging point. In case depots are to be shared by more than one operator, the Authority shall ensure segregated and adequate allocation of space for parking, setting up charging infrastructure and maintenance facilities to the bidders. Separate metering and/or submetering for activities of different operators shall be set up by the Authority. In other words, the Authority shall find a mutually agreeable solution to manage the compliance obligations of all Bidders.
- *g*) Authority shall inform CESL upon issuing of the Letter of Award a template of which will be provided by CESL and signing of the NEBP Concession Agreement.
- *h*) The Authority shall on or before the Lot COD of the first Lot of Buses, deposit in the Escrow Account a sum equal to 2 (two) months' estimated Fees payable to the Operator as detailed out in Article 27 of Concession Agreement. Detailed escrow mechanism shall be notified by CESL. This requirement shall remain a Condition Precedent to the NEBP Concession Agreement.
- *i*) In the event of a dispute, and during its resolution period (i.e. until such time a resolution has been arrived), the Authority shall allow the Bidder to redeploy the assets (i.e. eBuses and their chargers) during the course of dispute or termination process. Where the Bidder has paid for the transformer, this may also be redeployed.

C. Scope of CESL

a) CESL plays the role of a Program Manager for deploying electric buses under the NEBP.

Roles are as follows:

- i. Aggregate demand from STUs/Authorities through Expression of Interest (EoI) subscription
- ii. Detailed assessment of technical and commercial preparedness of the recipient cities:

¹ The minimum number of buses per depot clause is not valid for Arunachal Pradesh as the total bus requirement is less than 50 and in case of Delhi some of the depots cannot accommodate 50 buses on account of limited depot area



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- iii. Ensuring availability of adequate and appropriate land with access to utility infrastructure with the STUs which could be offered as depots
- iv. Review of existing bus operations and planned deployment of buses over next 10-15 years
- v. Assessment of various route lengths and minimum annual assured kms
- vi. Review existing eBus policies and various incentives to promote eBuses and charging facilities
- vii. Assessment of financial strength of the STUs and ability to make regular payments
- viii. Assessment of existing owning and operating cost of buses
- ix. Design an appropriate mix of business models: Based on the assessment of various cities, alternative models need to be analyzed including Gross Cost Contract (GCC), Net Cost Contract (NCC), un-bundled (bus supply and operation by separate entities) and other appropriate model(s) to be finalized
- x. Design of the NEBP program, its rules and allocation methods;
- xi. Standardization of parameters and contract terms through consultation with subscribing STUs/ transit agencies
- xii. Designing of robust payment security mechanism: Design robust payment security mechanism based on the assessment of the financial and credit strength of STUs
- xiii. Increased competition: Designing conditions to increase the universe of eligible bidders through encouraging collaboration between OEMs, operators, financiers; domestic and foreign financial institutions; infrastructure service companies and financial investors such that there is adequate competition;
- xiv. Manage a consultative process: Facilitate consultations amongst stakeholders to evaluate alternative business models, arrive at common standard technical specifications and commercial terms to help design bankable and attractive structure
- xv. Designing and implementing a transparent and fair competitive bid process
- xvi. Capacity Building: As eBuses deployment on PPP is a new and innovative concept, it is important to develop institutional capacity of relevant STUs to help them understand and implement the contract efficiently.
- xvii. Design and drafting of bid documents, agreements and other documentation;
- xviii. Finalization of the technical specifications for buses suitable for the participating STUs
- xix. Floating of RfP/tender to select bidders (OEM/ Operators) for eBus deployment
- xx. Discovery of GCC prices and communicate the same to STUs.
- xxi. Assist STUs and the winning bidder to finalize the Concession agreement
- xxii. Design initiatives to increase employment, diversity of workforce
- xxiii. Design initiatives to support India's ambitious Nationally Determined Contribution.
- xxiv. Development of carbon credits
- b) CESL or an independent third party hired by CESL will be the centralized agency for prototype testing on category basis and city specific basis (in collaboration with participating Authorities) to ensure timely commencement of operations.
- c) CESL shall have the right to prepare and monetize the carbon assets from the NEBP. CESL shall register the project for carbon credits under Clean Development Mechanism (CDM) and/or voluntary market mechanisms as considered appropriate. This means it shall have the right to register the project under Clean Development Mechanism ("CDM") and/or voluntary market registries. CESL shall decide the preparation pathway most suited for availing carbon credits. The Authority and bidder shall extend support to CESL for the project preparation and registration under CDM and/or Voluntary market mechanisms. The revenue spilt shall be on a 50-50 basis between the Authority and successful Bidder, less registration and costs (including third party costs) incurred for preparation of the Carbon Asset payable to CESL, unless otherwise decided in writing. Authorities and/or Bidders



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- d) CESL role will end with the deployment of the last bus in the participating cities.
- e) CESL recognizes concerns from OEMs and potential investors/bidders, including from the industry association SIAM, around the financial health of STUs/STCs and the resultant risk of payment default to the Bidder. In response and to support the development of an ecosystem for electric buses and public transport, CESL has submitted a proposal to MoRTH for the creation of a payment security fund to protect Bidders/operators in the unlikely event that STCs default on their payments. At the time of writing this Tender, such payment security fund is under consideration. If and once finalized and operational, Operators under this Tender may avail of such payment security fund.
- f) CESL will charge Project Management Charges (PMC) from the Successful-Bidder(s) in each lot. A PMC of INR 41,000 per bus shall be charged which includes upfront fee of INR 11,000 per bus to be paid at the time of bid submission by all the bidders. The fee will include a fixed cost of INR 1 crore for each STU allocated to the successful bidder plus a Variable Fee for each bus of INR 47,000. GST will be extra as applicable. Balance payment is required to be paid by the successful bidders as per the milestones defined in clause (f).

Activity	PMC Fee	Remarks
At the time of Bid Submission by all the bidders	Upfront ₹11,000 per bus + GST (18%)	For unsuccessful Bidders, full refund will be made after deduction of 2% of the upfront payment. Refunds will be made no more than 90 days from the successful allocation of lots to winning bidders.

All bidders shall pay the Upfront Fee before the submission of Bids through NEFT/RTGS only, as per the CESL banking details given below and include the Receipt copy in the Envelope-I. CESL will reject the bid in case of non-payment of upfront fee.

Convergence Energy Services Limited
000705051799
Current
ICICI Bank, New Delhi Branch
ICIC0000007
110229002

g) CESL will enter into a Management Services Agreement with the winning Bidder and based on milestones, will raise invoices for PMC charges on successful bidder. CESL will raise invoices on successful bidder as per the milestone defined below. GST will be extra as applicable.

Milestone	Activity completed	PMC fee	Remarks
1st	Upon execution or the issue of supply order/LoA from STU to selected bidder, whichever is earlier. This fee is on a "per STU" basis.	₹10,000 per bus +GST INR 1 Cr*. Per STU + GST	1/3rd of the balance fees (₹.30K) for the overall awarded quantity



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2nd	Upon signing of the MCA agreement by STU with selected bidders. (For the awarded quantity)	₹10,000 per bus +GST 50% of variable fees for the overall awarded quantity	1/3rd of the balance fees (₹.30K) for the overall awarded quantity
3rd	Upon delivery of Buses as per Deployment plan (Payment to be made as per actual deployed quantity)	₹10,000 per bus +GST 50% of variable fees for the awarded quantity	1/3rd of the balance fees (₹.30K) for the overall awarded quantity

*For Arunachal Pradesh the amount will be INR 1 lac + GST per bidding bus quantity.

The bidder will be required to make the payment against the invoice Payment of invoices raised by the CESL shall be made within 30 days of invoicing date else an interest charges @ 18% p.a. will be charged on delayed payment from the due date.

For further details on each party's scope, please refer to the Volume 2, containing the Concession Agreement, to be signed between Authority and Selected Bidder(s).

- i. Scope of Selected Bidder(s): Please refer to the Concession Agreement for detailed scope of work of the Selected Bidder(s)
- ii. Scope of Authority: Please refer to the Concession Agreement for detailed scope of work of the Authority.

4. Brief Description of the bidding process

This Section 4 of RFP comprises of three volumes:

- Instructions to Bidders (Volume I)
- Concession Agreement (Volume II)
- Technical Specifications (Volume III)

The Bidder is expected to examine all Instructions to Bidders, Data Sheet, Annexures, Standard and Specifications and Master Concession Agreement in the RFP Document and to furnish with its Proposal all information or documentation as is required by the RFP Document.

The bidding documents including this RFP Document and all attached documents are and shall remain the property of the Authority and are transmitted to the Bidders solely for the purpose of preparation and the submission of their respective Proposal in accordance herewith. Bidders are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their Proposal. The Authority will not return any Proposal, or any information provided along therewith.

The statements and explanations contained in this RFP are intended to provide an understanding to the Bidders about the subject matter of this RFP and shall not be construed or interpreted as limiting in any way or manner whatsoever the scope of services, work and obligations of the Successful Bidder to be set forth in the MCA or the Authority, the Authority's right to amend, alter, change, supplement or clarify the scope of service and work, the MCA to be awarded pursuant to the RFP Document including the terms thereof, and this RFP including terms herein contained. Consequently, any omissions, conflicts or contradictions in the Bidding Document including this RFP are to be noted, interpreted and applied appropriately to give effect to this intent and no claim on that account shall be entertained by the Authority.



Subject: CN=MAHENDRA SINGH, SERIALNUMBER=6cbeabfc6d23672f81d4da801b75i 6722444d6ec7e96fa1c207cc28d61b8, ST=DELHI, OID.2.5,4.20=5e847f7b32a1996688234344cba31cddfeb25666927a5e1d6b 17.2.5,4.20=5e847f7b32a19996688234344cba31cddfeb25666927a5e1d6b 27acb4dd2fc, OU=SUPPLY CHAIN MANAGEMENT, O=ENERGY EFFICIENCY SERV ICES LIMTED, C=IN User ID : mahendra.singh Serial No: 1628840 PB : mahendra.singh(Mahendra Singh) Date : 02-12-2027 The key points of bidding process are:

Bidding process: CESL has adopted a single-stage, three-envelope process (referred to as the "Bidding Process") for selection of the Bidder for award of the Project. Under this process, a Bid shall be invited under three envelopes. Along with the Bid, the Bidder shall pay to CESL a sum of INR 25,000 towards bid-document fees. Eligibility in terms of MSME status, EMD/ Bid Documents fees submission etc will be first determined on the basis of envelope 1 and qualification of the Bidder will be subsequently examined based on the details submitted under second envelope (Technical Bid) with respect to eligibility and qualifications criteria prescribed in Section 6 of this RFP. (The "Bidder", which expression shall, unless repugnant to the context, include the members of the Consortium). The Financial Bid as the third envelope shall be opened of only for those Bidders whose Technical Bids are responsive to eligibility and qualifications requirements as per this RFP.

Evaluation and Allocation Process

Bids will be evaluated based on the INR per km rate quoted by the Bidders for each lot. The award quantities for each lot is presented in the table below. Please refer to Clause 9 of this RFP for further details on award of contract and the evaluation process.

Lot	Bus Type	Number of buses	Award of Contract*
Type-I b	ouses		
		1900	L1: L2: L3 (50:30:20) =
Lot 1	12m Low Floor AC Bus		950:570:3800
Lot 2	12m Low Floor Non-AC Bus	500	L1 = 500
Lot 3	12m Standard Floor AC Bus	525	L1 = 525
		2080	L1: L2: L3 (50:30:20) =
Lot 4	9m Low Floor AC Bus		1040:630:410
Lot 5	9m Standard Floor AC Bus	306 181	$L1 = \frac{181}{306}$
Lot 6	7m Standard Floor AC Bus	4	L1 = 4
Type-III	buses		
Lot 7	12m Standard Floor Non-AC Bus	950 500	L1: L2 = 500:450**
Type- II	buses		
Lot 8	12m Standard Floor Non-AC Bus	200	L1 = 200***
	12111 Stalluaru 17001 Noll-AC Bus	200	$L1 - 200^{111}$

* LOA

** In Lot 7, 500 buses for TSRTC will be awarded to the L1 bidder, while 450 buses for KSRTC will be awarded to the L2 bidder

*** Bidders shall quote the price at S No. 8 (Optional 1) of the price bid for this lot.

Due Diligence and site visit: Bidders are encouraged to examine and familiarize themselves fully about the nature of assignment/project, local conditions, availability of necessary materials, applicable laws and regulations, and any other matters considered relevant by them before submitting the bid. Bidders are encouraged to visit the depots where possible. Any comments shall be sent in writing and will be addressed by CESL during the Pre-Bid Meeting.

Acknowledgement by bidder: It shall be deemed that by submitting the bid, bidder has made a complete and careful evaluation of RFP, received all relevant information from CESL, accepted risk of inadequacy, error or mistakes provided in RFP, acknowledged no conflict of interest, agreed to bound by undertakings provided by it under and in terms hereof. CESL shall not be liable for any omission, mistake or error in respect of any of the above or on account of any matter or thing arising out of or concerning or relating to the RFP or the Bidding Process, including any error or mistake therein or in any information or data given by the Authority.

Cost of bid: Bidders shall be responsible for all the costs associated with the preparation of their eligibility, submission



and participation in the bid process. CESL will not be responsible or in any way liable for such costs, regardless of the conduct or outcome of the bidding process.

Bid Currency: All prices quoted in the Bid shall be quoted in Indian National Rupee(s) (INR)

Bid Validity: Bid shall remain valid for a period of 180 days from bid due date. CESL reserves the right to reject a bid as non-responsive if such bid is valid for a period of less than bid validity period and CESL shall not be liable to send an intimation of any such rejection to such bidder.

In exceptional circumstances, prior to expiry of the original bid validity period, CESL may request the bidders to extend the period of validity for a specified additional period. The request and the responses thereto shall be made in writing. A bidder may refuse the request without forfeiting their bid security. A bidder agreeing to the request will not be permitted to modify his bid but will be required to extend the validity of his bid security/EMD for the period of the extension, and in compliance with RFP terms in all respects. The price as per the bid shall be valid for the entire duration of the contract when awarded within the bid validity period.

Number of Bids by Bidder: No bidder, its associate or any of consortium members or their associates shall submit more than one bid submission and price bid per Lot pursuant to this RFP. Any bidder applying individually as single bidder or a part of a group of bidders applying as a consortium shall not be entitled to submit another bid either individually or as members of another consortium, directly or indirectly through an associate of any other bidder in, as the case may be, the same lot. If a bidder submits or participates in more than one bid in this manner, such bids shall be disqualified and rejected. The term "Associate(s)" is defined in this RFP. For the purpose of clarity, the bidder can participate as a single bidder or part of a consortium in any other lot under the tender.

The aforementioned clause would not restrict OEM(s) to have MoU(s) with multiple financial aggregators or operators participating as single bidders in this bid.

Price Bid: The bidder needs to meet the eligibility criteria provided to qualify in the RFP. Bidder would be required to quote the rate in INR/km as per the contract conditions specified in this RFP. Price bid of the bidders fulfilling the eligibility and qualification criteria shall be opened. The bidder having the lowest and responsive price bid as per clause 9, shall be considered as preferred bidder for award of the project.

Quotations: Bidders should quote their rates in figures and numbers in the unit of Indian Rupees per kilometer, specified in the e-tender by carefully punching in the appropriate field. All prices quoted in the Bid shall be quoted in Indian Rupee(s) (INR). All taxes & charges necessary to affect the procurement and services for Operation of Stage Carriage Services of Electric Buses such as Goods & Service Tax (GST) etc. under the project should be included in the unit rate quoted by the bidder. clearly indicated by Bidder in the price bid in percentage/amount. Unless specifically mentioned, it will be. It is presumed that the quoted rate is inclusive of GST and/or other charges stated above, and no variation whatsoever will be allowed subsequently.

If GST is included in the basic quoted rate, then the bidder should indicate percentage of such GST (GST included in rate). If the bidder does not indicate percentage of GST included in basic quoted rate, any claim for revision in price due to subsequent change in GST for whatsoever reason will not be granted.

Since at present GST on stage carriage services of electric buses is NIL, and the unit rate quoted by the bidder is exclusive of GST. In case GST on the unit rate quoted is imposed after the bid submission date, the same shall be borne by the Authority in accordance with the applicable GST rates. if bidders have specially mentioned the rates of GST.

All Bids shall be submitted through the e-tendering system and Bidders shall take utmost care while quoting rates



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5. Earnest Money Deposit (EMD) / Bid Security

- a) Bidder shall furnish a separate bid security for the captioned work. It shall be provided from scheduled banks only, in form of irrevocable bank guarantee/ account payee demand draft in favour of CESL payable at New Delhi. Account Name: Convergence Energy Services Limited Account Number: 000705051799 IFSC Code: ICIC0000007 MICR Code: 110229002 Customer ID: 578807920
- b) Bidders may submit EMD and Performance Security in the form of Insurance Surety Bonds.

Lot Type	Number of buses	Amount in Crore (INR)
Type I Bus		·
Lot 1 – 12m Low Floor AC bus	1,900	14.64
Lot 2 - 12m Low Floor Non-AC Bus	500	3.55
Lot 3 - 12m Standard Floor AC Bus	525	3.57
Lot 4 – 9m Low Floor AC Bus	2,080	12.46
Lot 5 - 9m Standard Floor AC Bus	306 181	1.70 1.01
Lot 6 – 7m Standard Floor AC Bus	4	0.02
Type III Bus		
Lot 7 - 12m Standard Floor Non-AC Bus	950 500	9.16 4.82
Type II Bus		
Lot 8 – 12m Standard Floor Non-AC Bus	200	1.78

- c) If a Bidder opts to bid for more than one Lot, then the EMD requirement for the Bidder would be the cumulative EMD requirement for all the lots being bid for.
- d) EMD of the successful bidder will be returned after providing the Contract Performance Bank Guarantee (CPBG) to the STU is furnished, and the STU confirms the same to CESL and all dues to CESL are paid. CESL will hold the proportionate EMD to the extent of future PMC payments and the same will be released after clearing of PMC charges to CESL. If the EMD is not splitable than the successful bidder needs to deposit the EMD/BG to CESL for the balance PMC recoverable amount from the successful bidder before release of the original EMD. The EMD will be forfeited by CESL if the dues are not cleared by the successful bidder as per due dates.
- e) EMD paid by the Bidder is liable to be forfeited if the Bidder withdraws or amends or impairs or derogates from the bid in any respect or engages in any fraudulent practices within the period of validity of bid after the bid due date.



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- f) No interest will be payable by CESL on the Earnest Money Deposit.
- g) The EMD of the successful bidder will be returned after the Contract Performance Bank Guarantee (CPBG) to the STU is furnished, and the STU confirms the same to CESL in writing and all dues to CESL are paid. CESL will hold the proportionate EMD to the extent of future PMC payments and the same will be released after clearing of PMC charges to CESL.
- h) If the successful bidder fails to furnish the performance security as specified in the Concession Agreement, then the Earnest Money deposit (EMD) shall be liable to be forfeited by CESL, in addition to any other actions as per terms and conditions stipulated in the bid-documents.
- EMD of all unsuccessful bidders will be returned to them at the earliest after expiry of the final bid validity date and latest by the fifteen date of signing of the concession agreement between the Authority and the successful Bidder. EMD of all unsuccessful bidders (i.e. techno-commercially non responsive) will be returned to them within 30 days of opening of the price bid. EMD of all successful bidders to whom awards have not been made will be returned latest by the 15th day of signing of the Concession Agreement between the Authority and the Successful Bidder.
- j) The Bid Security of a Bidder shall be forfeited in the following events:
 - i. If a bidder withdraws/modifies/changes the bid during the period of bid validity
 - ii. In the case of a successful bidder, if the bidder fails to sign the Concession Agreement for any default on their part within the stipulated time as specified by CESL.
 - iii. Successful bidder fails to furnish the required performance security within stipulated time as per the terms and conditions mentioned in RFP
 - iv. Successful bidder fails to furnish the required performance bank guarantee adjustable security deposit within stipulated time in accordance with RFP terms set forth herein.
 - v. In case of a fraudulent offer and involved in fraudulent or corrupt practice as per RFP terms.
 - vi. In the event, bidder, after the issue of communication of acceptance of his bid by CESL, fails/refuses to start/execute the work as herein the bidder shall be deemed to have abandoned the work/contract and such an act shall amount to and be construed as the bidder's calculated and willful breach of contract, the cost and consequences of which shall be to the sole account of the bidder and in such an event that CESL shall have full right to claim damages thereof in addition to the forfeiture of the Bid security deposited as per terms of this bid documents.
 - vii. In case of occurring of any other event as may be specifically stated in the RFP document.
- k) Where Bidder is bidding with its holding company, then the EMD may be provided by the Bidder's holding company.
- 1) EMD may be provided by more than one bank.

6. Qualification and Eligibility Criteria

SN	General Eligibility	Details of the Documents submitt bidder(s)	ted by
		18 CESLING CONTRACTOR	, OID.2.5.4.17=110003, O cbd6feb2b686c927a5e1d6b

(A)	(B)	(C)
	 Bidders may be any of the following types of entities: (i) OEMs or (ii) Operating subsidiary of OEM or (iii) Financial aggregator or (iv) Operator 	Self-declaration as a single bidder including demonstration of MoU with OEM(s) if the single bidder is a financial aggregator or an operator.
G1	 Bidders may also be a Consortium of maximum 3 (three) members led by a lead bidder. If the bidder wishes to be a single bidder, and is either a financial aggregator or an operator, then the bidder shall furnish MOU with the OEM(s) they seek to purchase buses from, for the entire quantity that they are bidding for. Should this bidder become the winning bidder, the same OEM or OEMs shall enter into a tripartite Concession agreement with the STU for the complete duration of the contract. Maximum number of consortium members is limited to 3 (three), namely an OEM, an Operators, a Financial Aggregator. One of the members of the consortium must be an OEM/OEM's subsidiary. In case the lead bidder is not an OEM, the OEM/OEM's subsidiary is required to stay in the contract for complete duration of contract The OEM is also required to cover all applicable warranties of battery and technologies for the entire duration of the contract. 	In the case of a Consortium, then a consortium agreement, clearly mentioning lead and non-lead members Self-declaration to be provided on letter head of lead bidder with sign and stamp from competent authority
	in the bid) including name of lead and non-lead members. The OEM (as single bidder or in consortium) shall be a registered bus manufacturer with bus manufacturing	Self-declaration, Manufacturing Facility address, Office Address, License to Manufacture buses
G2	facilities in India under applicable laws	Self-declaration to be provided on letter head of company (OEM) with sign and stamp from competent authority
	Bidder or/and all members of the Consortium must be either:	
G3	A company incorporated in India under or prior to the Companies Act, 1956 (as amended or re- enacted or restated, and including the Companies Act, 2013 as notified from time to time) OR	Copy of Certificate of Incorporation, Memorandum and Article of the association of the bidder should be submitted
	A Trust/Society/Financial Institute/Alternative Investment	Copy of Registration certificate from



	Fund (AIF) registered with competent authority i.e. Reserve Bank of India (as defined in Section 45I(c) of Chapter IIIB of the RBI Act,1934) or Security Exchange Board of India (SEBI) OR	RBI or under section 4A of the Companies Act 1956
	Similar International Financial Institutions registered with applicable regulators aboard but also registered / licensed to conduct business in India OR	In addition, GST number and PAN card for the FI must also be submitted.
	Partnership firm registered under the Indian Partnership Act OR	Copy of registered Partnership Deed should be submitted
	An LLP incorporated under Limited Liability Partnership Act, 2008/Companies Act 2013 OR	Copy of Certificate of Incorporation, and Registration Certificate of the bidder should be submitted
	A registered proprietary firm in India	Copy of sales tax/GST registration, EPF registration, Shops and Establishment Dept. registration certificate, as may be applicable, should be submitted
	The Bidder/s or its parent/subsidiary/sister concern, (any	
G4	member of consortium) shall not have been blacklisted or barred from carrying out its business by any Regulator / Government Authority/Court of Law, or proved to have indulged in serious fraudulent practices by a Court of Law or an independent Commission of Inquiry in India or abroad at the time of due date of submission or at any stage during the bid evaluation process till the issuance of LoA.	A notarized certificate of non-blacklisted status in respect of the participating bidder/consortium members is required to be provided.
	OEM should have completed testing and certification requirement under Central Motor Vehicle Rules 1989 (CMVR) of at least one (1) of tendered product i.e. 7m, 9m or 12m Electric Bus (100% battery operated) from the designated testing center in India. i.e., CMVR type- approval, homologation certificate.	Type-approval certificate and homologation certificate from a recognized testing agency (ARAI/ICAT/CIRT/ VRDE or other) of at least one model (mini, midi or standard) of electric buses at the time of bidding.
G5	Additionally, it shall also provide any certification that it has obtained for its vehicles or parts tested at reputed institutes like Central Institute of Road Transport, Pune/Central Power Research Institute, Bangalore/ ARAI or at any other Govt. recognized/reputed Institute/Laboratory.	Homologation certificate of the buses to be deployed under this RFP shall be submitted at the time of delivery of buses to the respective STU/Authority.
G6	Provide certificate of compliance for indigenization of xEV parts of eBus as per details provided in clause 22. Certification from approved testing agencies like	Self-certification for compliance of indigenization to be provided at the time of bidding.
	ARAI/ICAT/CIRT etc. of against components/localization	Final certificate complying with clause 22 as applicable to be submitted at the time of delivery of buses.

SN	Financi	ial Qualifications		Details of the Documents submitted by bidder(s)
(A)	(B)			
F1	(MAA' The fin 2020-2	should have Minimum T), during the last 3 years nancial years which will 1 1, 2019- 20 should be e old defined below for each		
	Lot	Bus Type	MAAT Requirement (INR Crore)	period i.e. the financials of last 3 years.
	Type-	l services	· · · · · · · · · · · · · · · · · · ·	
	Lot 1	12m Low Floor AC Bus	137.94	
		12m Low Floor Non-AC		
	Lot 2	Bus	55.69	
		12m Standard Floor AC		
	Lot 3	Bus	56.03	
	Lot 4	9m Low Floor AC Bus	117.44	
		9m Standard Floor AC		
	Lot 5	Bus	26.71 -15.80	
	2010	7m Standard Floor AC		
	Lot 6 Bus		0.33	
	Type-	III Bus Services		
		12m Standard Floor		
	Lot 7	Non-AC Bus	75.74	
	Type-	II Bus Services		
		12m Standard Floor		
	Lot 8	Non-AC Bus	27.98	
	Please	Non-AC Bus note Minimum Average A l as the Revenue from Oper	5	
		e of consortium, combined ers will be considered.	1	
	require	Bidder opts bid for more the ement for the Bidder would requirement for all the lots		
		tion for Micro, Small and I E) in MAAT required provi		
		e Audited Financial stateme ble then Bidder may alterna	0	

Only the Bids of the Bidder meeting above Eligibility Criteria shall be considered for assessment of next stage of assessment of Qualification Criteria.



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	Financial statement of FY 2018-19, FY-2019-20, FY-2020- 21. In this case, Avg. ATO for the Financial year FY 2018- 19, FY-2019-20, FY-2020-21 shall be considered.	
	(i) The net worth of the Bidder firm (manufacturer or principal of authorized representative) should not be negative on 'The Relevant Date' and also	Annual Report (audited balance sheet and profit & loss account of the relevant period i.e. the financials of last 3 years.
F2	(ii) should not have eroded by more than 30% (thirty percent) in the last three years, ending on 'The Relevant Date'.	
	In case of consortium, this condition is to be filled by all the members individually.	

Aggregating the credentials of any Associate of the Bidder for the purpose of meeting the revenue/ATO shall be permitted.

S No.	Technical Qualifications	Details of the Documents to be submitted by bidder(s)	
(A)	(B)	(C)	
	Manufacturing qualificationsBidder should have manufactured and delivered at least 25electric buses or 1000 CNG buses till date in India or abroad.	License of manufacturing buses Proof of manufacturing and sale	
Τ1	Foreign experience will be permitted only for manufacturing. Operational experience must be in India.	(including no. of units sold, customer name and date of supply), proof of manufacturing capacity available in	
	If the single bidder is a financial aggregator or operator, they shall have accompanied back-to-back MOU with OEM(s) and the respective OEM(s) shall be made party to the (tripartite) Concession agreement(s). The experience of the accompanying OEM(s) with whom the bidder has signed MOU(s) shall be used to the requirement of manufacturing qualifications.	India and proof of delivery.	
Т2	Ownership and /or Operation experience Ownership and /or Operation experience (including planning, managing, and monitoring of day-to-day bus/Passenger vehicle operations and/or maintenance) of at least 1 year for a minimum of 25 electric buses or 1000 CNG buses in India till date.	Operation Experience: Contract/Concession Agreement of operation with public sector entity/ Government, semi government or Private sector organization of repute for the operation of buses	
	If OEM or Operating subsidiary of OEM is participating as a single bidder or in a Consortium, it will be exempted from Ownership and Operation experience	Ownership experience: RTO Books, RTO bus ownership certificate any other verifiable proof of ownership	

6.1. Associate (Parent / Subsidiary / Sister Concern) Criteria

In evaluating the Qualifications Criteria of the Bidder herein above, aggregating the financial and technical capability of any Associates of the Bidder for the purpose of meeting the respective Qualifications Criteria required of the Bidder shall be permitted.

For the purpose hereof, the word "Associate" shall mean, in relation to the Bidder, a firm which controls the Bidder (i.e. Parent/Holding Company) or is controlled by the Bidder (i.e. subsidiary), or is under the common control with the Bidder (i.e. sister concern).

- 1. As used here, the expression "control" means, with respect to bidding firm, which is a company,
 - i. the ownership of common shareholders, directly or indirectly (i.e., together with one or more of its subsidiaries/Holding companies), of at least 50% of the voting shares/shareholding of the firm in question, OR
 - ii. the right to appoint majority of the directors or to control the management or policy decisions exercisable by a person or persons acting individually or in concert, directly or indirectly, including by virtue of their shareholding or management rights or shareholders agreements or voting agreements or in any other manner.
- 2. As used here, the expression "control" means, with respect to bidding firm, which is a partnership, the rights of common partners to at least 50% of the profits of the firm in question.
- 3. In case the bidding firm is a Proprietorship, the expression "control" shall mean,
 - i. holding of at least 50% of the voting shares by the Proprietor in the company from which it is taking Associate credit and /or
 - ii. status as a Partner in the Partnership firm from which is taking credit with at least 50% share in the profits of such Partnership firm. (In the event of any confusion or dispute, the provisions of Companies Act 2013, appropriately applied in context, shall prevail)

Any claims of credit from Associate firm must be accompanied by a certificate by a registered chartered accountant clearly explaining how the Associate firm meets the above definition of the Associate firm.

7. Bidding Condition for Single bidder/Consortium and Formation of SPV

7.1. Single Bidder

If the Bid is by a Single Bidder, then the Bid needs to be presented by a registered Bus Manufacturer (Original Equipment Manufacturer for Buses (OEM) or Operating subsidiary of the OEM, or Financial Aggregator, or Operator.

If the Bidder is a Financial Aggregator or an Operator, and they wish to participate as a single bidder, they may do so provided they have an MOU with one or more OEM(s) for the purchase of buses. All Bidders must meet all the prescribed qualifications mentioned in this document. Sub-contracting specific tasks by Single Bidder to experienced / qualified sub-contractors is not restricted.

OEMs that enter into MoUs or agreements with Financial Aggregators or Operators are free to also participate as Single Bidders on their own right.



Subject: CN=MAHENDRA SINGH, SERIALNUMBER=6cbeabfc6d23672f81d4da801b75i 6722444d6ec7e96fa1c207cc28d61b8, ST=DELHI, OID.2.5.4.20=5647f7b32abf99668224344cba31cbdfeb2b686927a5e1d6b 27acb4dd2fc, OU=SUPPLY CHAIN MANAGEMENT, O=ENERGY EFFICIENCY SERV ICCS LIMTED, C=IN User ID : mahendra.singh Serial No: 1628840 PB : mahendra.singh(Mahendra Singh) Date: 10:12-2022 Financial Aggregator and/or Operator may bid with multiple OEMs. However, OEMs must remain in the contract throughout the contract period.

If a non-OEM bidder wins as a single bidder or lead bidder in consortium, then the corresponding OEM(s) with whom the MOU is signed would have to mandatorily sign a tripartite agreement with the Authority and the Selected Bidder for the entire contract duration, in order to ensure the provision of requisite spares and services and cover all applicable warranties of battery and technologies for the entire duration of the contract.

7.2. Consortium

A Consortium is permitted to participate in bidding process. The maximum number of consortium members is limited to 3 (Three) members, with respective qualifications and roles as provided for in the bidding conditions for single bidders and consortiums.

- a) Any member can be the lead in a Consortium. However, it is necessary for an OEM to be a member of the consortium in order to qualify. Members of a Consortium may comprise of the following types of entities:
 - i. OEM or OEM's Operating Subsidiary Mandatory
 - ii. Bus Operator(s)
 - iii. Financial Aggregator
- **b**) A single Bidder cannot also be a member of a Consortium whilst simultaneously bidding in the same Lot. participating in the RFP same lot.
- c) However, a bidder can participate either independently as a single bidder or as part of a consortium in any other Lot. For example, an OEM can participate as a single bidder in Lot 1, and be represented as a consortium member in Lots 2/3/4 etc.
- d) No Bidder or any of its Associates can be represented more than once in the same Lot.
- e) Bidders bidding as consortiums must clearly identify the lead member and non-lead member and their respective roles in the consortium agreement.
- **f**) In case the lead bidder is not the OEM/OEM's subsidiary, the OEM/OEM's subsidiary is required to stay in the contract for the complete duration of contract as mentioned in Concession Agreement. The OEM is also required to cover all applicable warranties of battery and technologies for the entire duration of the contract.
- g) If any member of the consortium wishes to be replaced, this may be permitted provided:
 - They are not an OEM
 - They have received due consent from the relevant STU
- h) Exit of lead member from any consortium shall not be permitted at any stage
- i) The role and responsibility of any member must be commensurate with the technical/financial capabilities that such member is contributing towards meeting the qualification criteria. Each consortium member is liable to contribute resources in terms of knowledge, skills and trained manpower commensurate with its role and responsibilities during the agreement period.

7.3. Special Purpose Vehicle Company (SPV)

Where the Bidder is a single entity, they may choose (optional) to form an / multiple appropriate Special Purpose Vehicle(s), incorporated under the Indian Companies Act 2013 (the "SPV"), to execute the Contract Agreement and implement the Project. In the interest of clarity, multiple SPVs may be formed with a single STU. In case the Bidder is a Consortium, it shall, in addition to forming an SPV, comply with the following additional requirements:



- a. Members of the Consortium shall nominate one member as the lead member (the "Lead Member"), who shall have an equity share holding of at least [38%] (thirty-eight per cent) of the paid up and subscribed equity of the SPV; the Lead Member shall hold equity share capital not less than [38%] (thirty-eight per cent) until the end of the contract. The nomination(s) shall be supported by a Power of Attorney, signed by all the other members of the Consortium.
- b. The SPV shall at no time undertake or permit any Change in Ownership except in accordance with the provisions; and that the Selected Bidder/ Consortium Members, together with its/their Associates, shall hold not less than
 - (i) [51%] (fifty-one per cent) of its issued and paid-up Equity on the date of this Agreement and a period of [3] (three) years from the date of Commercial Operations Date (COD); and
 - (ii) [26%] (twenty-six per cent) thereof, or such lower proportion as may be permitted by the Authority during the remaining Term; and that no Member of the Consortium whose technical and financial capacity was evaluated for the purposes of pre-qualification and short-listing in response to the Request for Qualification shall hold less than [26%] (twenty-six per cent) of the issued and paid-up Equity till the end of contract period. The shareholders of the SPV (Consortium members), with prior approval from the Authority and in line with the Concession Agreement, can disinvest/sell off their respective equity stake, partially subject to limits prescribed above, after completion of first [3] three years of the contract period, to any interested party having eligibility and qualification similar to the selected bidder.
- c. Any non-compliance with the provision hereof by the successful bidder with regards to shareholding requirement during the contract period, and failure to remedy such non-compliance within [30 (thirty)] days from the date of Authority's notice in this regard shall constitute an operator(s) event of default, which shall entitle the Authority to terminate this agreement in accordance with the provisions hereof.
- d. Notwithstanding the provisions of above, the successful bidder shall further ensure, that in the event it has been selected for the project on the strength of the technical and or financial capabilities of its/any of the associates, the said associate shall remain an associate of the successful bidder, for at least first three years of contract period.

8. Conflict of Interest

A Bidder shall not have a conflict of interest (the "Conflict of Interest") that affects the Bidding Process. Any Bidder found to have a Conflict of Interest shall be disqualified. Without limiting the generality of the above, a Bidder shall be deemed to have a Conflict of Interest affecting the Bidding Process, if:

a. The Bidder, its Member or Associate (or any constituent thereof) and any other Bidder, its Member or any Associate thereof (or any constituent thereof) have common controlling shareholders or other ownership interest; provided that this disqualification shall not apply in cases where the direct or indirect shareholding of a Bidder, its Member or an Associate thereof (or any shareholder thereof) having a shareholding of not more than 25% (twenty five percent) of the paid up and subscribed capital; of such Bidder, Member or Associate, as the case may be) in the other Bidder, its Member or Associate, is not more than 25% (Twenty five percent) of the subscribed and paid up equity share capital thereof; provided further that this disqualification shall not apply to any ownership by a bank, insurance company, pension fund or a public financial institution referred to sub-section (72) of section 2 of the Companies Act, 2013. For the purposes of this Clause, indirect shareholding held through one or more intermediate persons shall be computed as follows: (aa) where any intermediary is controlled by a person through management control or otherwise, the entire shareholding held by such controlled intermediary in any other person (the "Subject Person") shall be taken into account for computing the shareholding of such controlling person in the Subject Person; and (bb) subject always to sub-clause (aa) above, where a person does not exercise control over an intermediary, which has shareholding in the Subject Person, the computation of indirect shareholding of such



Supreture :-Subject: CN=MAHENDRA SINGH, SERIALNUMBER=6cbeabfc6d23672f81d4da801b75i 6722444d6ec7e96fa1c207cc28d61b8, ST=DELHI, OID.2.5.4.20=056477fb32abf99668254344cba31cbdfeb2b686(927a5e1d6b 27acb4dd2fc, OU=SUPPLY CHAIN MANAGEMENT, O=ENERGY EFFICIENCY SERV ICCS LIMTED, C=IN USer ID : mahendra.singh 9 serial No: 1628840 PB : mahendra.singh(Mahendra Singh) Date: 02-12-2022 person in the Subject Person shall be undertaken on a proportionate basis; provided, however, that no such shareholding shall be reckoned under this sub- clause (bb) if the shareholding of such person in the intermediary is less than 26% of the subscribed and paid up equity shareholding of such intermediary; or

- b. a constituent of such Bidder is also a constituent of another Bidder; or
- c. such Bidder, its Member or any Associate thereof receives or has received any direct or indirect subsidy, grant, concessional loan or subordinated debt from any other Bidder, its Member or Associate, or has provided any such subsidy, grant, concessional loan or subordinated debt to any other Bidder, its Member or any Associate thereof; or
- d. such Bidder has the same legal representative for purposes of this Bid as any other Bidder; or
- e. such Bidder, or any Associate thereof, has a relationship with another Bidder, or any Associate thereof, directly or through common third party/ parties, that puts either or both of them in a position to have access to each other's information about, or to influence the Bid of either or each other; or
- f. such Bidder or any Associate thereof has participated as a consultant to the Authority in the preparation of any documents, design or technical specifications of the Project.
- g. Such Bidder or any Associate thereof has appointed any official of the Authority, Technical Advisors of Authority for the Project, Legal Advisors of Authority for the Project, Financial Advisors of Authority for the Project, dealing with the Project, within a period of 1 years from the date of award of the Project to that Bidder.

Explanation:

In case a Bidder is a Consortium, then the term Bidder as used in this Clause, shall include each Member of such Consortium.

For purposes of this RFP, Associate means, in relation to the Bidder/Consortium Member, a person who controls, is controlled by, or is under the common control with such Bidder/Consortium Member (the "Associate"). As used in this definition, the expression "control" means, with respect to a person which is a company or corporation, the ownership, directly or indirectly, of more than 50% (fifty percent) of the voting shares of such person, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person by operation of law.

h. A Bidder shall be liable for disqualification and forfeiture of Bid Security if any legal, financial or technical adviser of the Authority in relation to the Project is engaged by the Bidder, its Members or any Associate thereof, as the case may be, in any manner for matters related to or incidental to such Project during the Bidding Process or subsequent to the (i) issue of the LOA or (ii) execution of the Concession Agreement. In the event any such adviser is engaged by the Selected Bidder or Operator, as the case may be, after issue of the LOA or execution of the Contract Agreement for matters related or incidental to the Project, then notwithstanding anything to the contrary contained herein or in the LOA or the Contract Agreement and without prejudice to any other right or remedy of the Authority, including the forfeiture and appropriation of the Bid Security or Performance Security, as the case may be, shall be liable to be terminated without the Authority being liable in any manner whatsoever to the Selected Bidder or Operator of doubt, this disqualification shall not apply where such adviser was engaged by the Bidder, its Member or Associate in the past but its assignment expired or was terminated 6 (six) months prior to the date of issue of RFP for the Project. Nor will this disqualification apply where such adviser is engaged after a period of 3 (three) years from the date of commercial operation of the Project.



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9. Evaluation and Allocation Process

The lot wise and Authority wise demand received is as follows:

Authority/ STU	City	Lot 1: 12m Low Floor AC	Lot 2: 12m Low Floor Non- AC	Lot 3: 12m Std floor AC	Lot 4: 9 m Low Floor AC	Lot 5: 9 m Std Floor AC	Lot 6: 7 m Std Floor AC	Lot 7: (Type -III) 12m Std floor Non- AC	Lot 8*: (Type- II) 12m Std floor Non-AC	Total
Department of Transport, Delhi	Delhi	1,900	-	-	1,040	-				2,940
Delhi Transport Corporation	Delhi				1,040					1,040
Telangana State Road Transport Corporation	Telangana	-	500	-	-	-		500		1,000
Transport Department Haryana	Haryana	-	-	375	-	175				550
Surat Municipal Corporation	Surat	-	-	150	-					150
Department of Transport, Arunachal Pradesh	Arunachal Pradesh					6	4			10
Kerala State Road Transport Corporation	Kerala					125		450	200	775
Total		1,900	500	525	2,080	306 181	4	950 500	200	6,465 5690

*Bidders shall quote the price at S No. 8 (Optional 1) of the price bid

CESL shall appoint successful bidders in the following manner:

- a. Bids will be evaluated independently for each lot, depending on the INR per km rate quoted by the Bidders
- b. A list of all responsive, eligible, and qualified bids will be prepared ranking the Lowest Bidder (L1) up to the Highest Bidder (H1) for each lot. ("Rank List"). The Bidder quoting the Lowest Price (L1 Bidder) shall be considered the "Preferred Bidder" for each lot.
- c. The allocation in each lot will be as follows (subjected to price matching)

Lot	Bus Type	Number of buses	Buses awarded to bidders	
		27	Signature :- Subject : CN=MAHENDRA SINGH, SERIALNUMBER=6cbaabfc6d23672f8 6722444d6ec7e96fa1c207cc28d61b8, ST=DELHI, OID.2,5,4,17=1100 ID.2,5,4,204=8047/fb32abl996688234344cba31cbd6feb2b686c927a5 2055 LIWITED, C=NUPPLY CHAIN MANAGEMENT, O=ENERGY EFFICIEN USET ID : mahendra.singh Serial No : 1628840 PB : mahendra.singh Date : 02-12-2022	a5e1d6b

Lot 1	12m Low Floor AC Bus	1900	L1:L2:L3 (50:30:20) = 950:570:380
Lot 2	12m Low Floor Non-AC Bus	500	L1= 500
Lot 3	12m Standard Floor AC Bus	525	L1 = 525
Lot 4	9m Low Floor AC Bus	2080	L1:L2:L3 (50:30:20) = 1040:630:410
Lot 5	9m Standard Floor AC Bus	306 181	$L1 = 306 \frac{181}{181}$
Lot 6	7m Standard Floor AC Bus	4	L1 = 4
		950 500	L1 (TSRTC): L2 (KSRTC) = 500:450
Lot 7	12m Standard Floor Non-AC Bus		L1 = 500
Lot 8	12m Standard Floor Non-AC Bus	200	L1: 200

- d. Subsequently, CESL shall call the Second Lowest Bidder (L2) for discussions and request to carry out the scope of work as per the RFP at the Lowest Price at which the First Bidder (L1) is considered for award (Price Matching).
- e. In case the L2 bidder agrees to match the Lowest Price (L1), they shall be considered the "Second Preferred Bidders" and be eligible for award of remaining 40% of the total quantity of the lot.
- f. In the event that Second Lowest Bidder (L2) does not agree to match the price of the First Preferred Bidder (L1) but subsequent lowest bidders (L3/L4/L5 etc.) do agree to match the price of the First Preferred Bidder, they shall be considered the "Second Preferred Bidders".
- g. In case none of bidders agree to match the price of First Preferred Bidder (L1), the entire lot may be recommended to be awarded to L1, at the sole discretion of CESL based on their eligibility criteria as defined in the tender document.
- h. CESL, and only CESL, retains right to negotiate with the bidder(s). CESL also does not bind itself to accept the preferred bid before or after the negotiations and it reserves the right to accept or reject any bid, in whole or in part. To be clear, this right is not automatically passed on to STUs participating in this Tender.
- i. Upon opening of the Price bids, in case Price quoted by Lowest Bidder is found seriously unbalanced by CESL in relation to the market rate or its internal estimate or Good Industry Practice, CESL shall be entitled to solicit, at its sole discretion, detailed price analysis for any or all items specified in Price Bid, from the said bidder to demonstrate the internal consistency of those prices.
- j. CESL, after negotiation, shall declare the Preferred Bidder(s) as successful bidder(s) if it's/their bid(s) is/are most favourable as per the provisions of RFP and shall enter into Concession Agreement with the Successful Bidder(s).
- k. After the financial evaluation of the bids received, CESL shall notify the successful bidders on their minimum allocation of quantity (of buses) and the GCC prices discovered thereof.
- 1. If there is only one Bidder for a particular lot, CESL shall deem this a "poor response". CESL shall discuss with STUs and proceed to recommend award of 100% quantity subject to approval of the STU.

10. Preparation and Submission of Technical Bid and Price Bid

10.1. Format and Signing of Bid

- a. The Bidder shall provide all the information sought under this RFP. The Authority will evaluate only those bids that are received online in the required formats and complete in all respects and Bid Security, cost of bid document, Power of Attorney (POA) and Joint Bidding/ Consortium Agreement etc. as specified in the RFP are received in hard copies.
- b. The Bid shall be typed and signed in **indelible blue ink** by the authorized signatory of the Bidder. All the alterations, omissions, additions or any other amendments made to the Bid shall be initialed by the person(s)



signing the Bid.

c. All pages of the Bid shall be serially numbered, and Bid shall comprise of index mentioning the details of all the appendices and annexures and other documents submitted by the Bidder.

10.2. Documents comprising Technical and Financial Bid

The Bidder shall submit the Technical Bid & Financial Bid online through CESL's e-procurement portal comprising of the following documents along with supporting documents as appropriate:

1. Technical Bid:

- i. **Deviation Statement** as per the format at **Attachment-5** of Section-6.
- ii. <u>Scanned Copy to be uploaded:</u> Covering Letter of the bidder, enclosing Techno-commercial bid as indicated in bid documents, i.e., documentary evidence regarding bidder's general eligibility qualification requirement to perform the Contract, as required per the Eligibility Conditions/Criteria, Qualifying Requirements and Bid Evaluation Criteria, and Details of Service Provider team structure as per mentioned in section 5.
- iii. One complete set of RfP documents and subsequent amendments (if any), duly signed and stamped on each page.

2. Price bid:

Format is prescribed at ANNEXURE- D in the Tender document (online only)

The Bidder shall submit all the documents mentioned physically. The Bidder shall not mention the Financial Bid i.e., the Bid Price, anywhere in the Technical Bid. In the case, the Bidder mentions the same, the Bid will be rejected.

11. Quantity variation clause:

Bidders may note that the quantity of Buses awarded to them can is subject to +/- upto 20% upward variation within one year from date of opening of technical bids.

Other requirements

- a. Bidders shall ensure that any number mentioned in the bid shall be followed by words in relation to such numerical format of the number, and in the event there is a conflict in the numerical and word format of the number, the number provided in words shall prevail.
- b. Format and Signing of Bid: The Bidder shall provide all the information sought under this RFP. CESL will evaluate only those Bids that are received in the required formats and complete in all respects. Incomplete and /or conditional Bids shall be liable to rejection.
- c. Uploaded bid documents shall be signed by the authorized signatory of the bidder on each page. In case of a Consortium, this signature shall be that of the authorized signatory and shall bind the bidder to the contract. The signed pages shall be scanned and uploaded at designated places. In case of printed and published documents, only the cover shall be initialed. All the alterations, omissions, additions or any other amendments made to the bid shall be initialed by the person(s) signing the bid. Each page of the Bid must be numbered at the right-hand top corner.
- d. The Bid must be properly signed by the authorized signatory (the "Authorized Signatory") as detailed below:
 - I. By the proprietor, in case Bidder is a proprietary firm; or



- II. By a duly authorized person holding the Power of Attorney, in case bidder is either a limited company or a corporation or an LLP or a Partnership Firm.
- e. In case of the bidder being company incorporated under Indian Companies Act 1956/2013, the power of attorney shall be supported by a board resolution in favour of the person vesting power to the person signing the bid.
- f. All prices and other information having a bearing on the price shall be written both in figures and words in the prescribed bid form. In case of discrepancy, the price given in words shall be considered

12. Rejection of Bid

- 12.1. CESL reserves the right to verify all statements, information and documents submitted by the Bidder in response to the RFP and the Bidder shall, when so required by CESL, make available all such information, evidence and documents as may be necessary for such verification. Any such verification, or lack of such verification by CESL shall not relieve the Bidder of its obligations or liabilities hereunder nor will it affect any rights of the Authority thereunder.
- 12.2. CESL reserves the right to reject any Bid and appropriate the Bid Security or take other administrative action if:
 - a. at any time, a material misrepresentation is made or uncovered, or
 - b. the Bidder does not provide, within the time specified by CESL, the supplemental information sought by the Authority for evaluation of the Bid.

Such misrepresentation/ improper response shall lead to the disqualification of the Bidder. If the Bidder is a Consortium, then the entire Consortium and each Member of the Consortium may be disqualified/ rejected. If such disqualification/ rejection occurs after the Bids have been opened and the lowest Bidder gets disqualified/rejected, then CESL reserves the right to annul the Bidding Process and invites fresh Bids.

- 12.3. A bid can be rejected by CESL without any further correspondence, as non-responsive, if,
 - a. Technical and/or price bid is not submitted online in the manner as prescribed is not in conformity with the terms and provisions
 - b. Technical and/or price bid is not submitted /incomplete submitted in the bid-forms.
 - c. Price Bid submitted in physical form shall be considered nonresponsive and rejected.
 - d. Non submission of bid security (EMD) and RFP fees or EMD do not conform to the provisions set forth in this RFP
 - e. In case of fraudulent bid and involved in corrupt practice.
 - f. Each bidder shall submit only one bid. A bidder who submits or participates in more than one bid under this RFP will be disqualified.
 - g. Misleading or false representation in the forms, statements and attachments submitted under this Tender/RFP.
 - h. Record of poor performance such as abandoning the work, rescinding of contract for which the reasons are attributable to the non-performance of the bidder or consistent history of litigation awarded against the applicant or financial failure due to bankruptcy.
 - i. Debarred or terminated or blacklisted in India by Central Govt. organization / State Govt. organization/any Municipal Corporation / ULBs etc. In this regard, the relevant provisions of Clause 3.5 "Debarment of Suppliers" of Manual of Procurement of Goods (Updated June 2022) issue by Department of Expenditure, Ministry of Finance, GoI shall be applicable.



- j. CESL may disqualify a Bidder from participation in the Bidding Process if it is found that the Bidder or any of its Associates/Affiliates has had any of their contracts terminated by any central, state, or local government or government instrumentality for breach of such contract by the Bidder or any of its Associates/Affiliates, and that such termination has not been set aside or stayed by a competent judicial authority.
- k. CESL may disqualify a Bidder from participation in the Bidding Process, if the Bidder or any of its Associates/Affiliates has been categorized as a wilful defaulter by any lender, in accordance with applicable laws.
- 1. CESL reserves the right to seek information and evidence from the Bidders with respect to their continued eligibility at any time during the Bidding Process and each Bidder undertakes to promptly provide all of the information and evidence requested by CESL.
- m. If, any of the directors, partners or the proprietor has a criminal history or has been convicted by any court of law for any of the offenses under any Indian laws.
- n. If, any criminal proceeding is pending in any court of law in India against any of the directors, partners, or a proprietor and if any such proceeding culminates into conviction
- o. In the event of bidder making an effort to influence CESL in its decisions on bid evaluation, bid comparison or selection of the successful bidder
- p. Bidders may specifically note that while evaluating the Bid, if it comes to CESL's knowledge expressly or implied, that some Bidders may have compounded in any manner whatsoever or otherwise joined to form an alliance resulting in distorting competitive price discovery or delaying the processing of Bid then the Bidders so involved are liable to be disqualified for this contract as well as future bids/contracts.
- q. **Predatory Pricing/Abnormally high price**. In case the Price Bid of the Lowest Bidder is found to be unrealistically lower or unrealistically higher than internal estimate/benchmark or market rate or Good Industry Practice, CESL reserves the right to seek written clarifications from the Bidder, including detailed price analyses of its Bid price in relation to scope, schedule, allocation of risks and responsibilities, and any other requirements of the bid document. If, after evaluating the price analyses, CESL determines that the Bidder has substantially failed to demonstrate its capability to deliver the contract at the offered price, or the price is found to be abnormally higher than CESL's internal benchmark, then the Bid/Proposal may be rejected as non-responsive and will not be considered any further for award.
- r. **Cartel Formation/Pool Rates**. It is possible that sometimes a group of bidders quote the same rate against a tender. Such pool/cartel formation is against the basic principle of competitive bidding and defeats the very purpose of an open and competitive tendering system. Such and similar tactics to avoid/control true competition in a tender leading to "Appreciable Adverse Effect on Competition" (AAEC) have been declared as an offence under the Competition Act, 2002, as amended by the Competition (Amendment) Act, 2007. In case of evidence of cartel formation, CESL may carry out detailed cost analysis by associating experts if necessary, and if the same is established, suitable administrative actions can be resorted to by CESL such as rejecting the offers, reporting the matter to trade associations, the Competition Commission or NSIC, etc., and requesting them, inter-alia, to take suitable strong actions against such firms.

13. Signing of Concession Agreement

The Successful bidder(s) would be required to execute the Concession Agreement as per the timelines defined within this tender document, as per the terms and conditions as specified in Volume 2. Concession Agreement of the RFP and any additional terms may be considered necessary by the Parties at the time of finalization. Such agreement shall also have all correspondence (to be discussed and agreed upon separately) between Authority and the successful bidder and additional clauses and/or provisions that further explain or clarify provisions of this RFP, or certain provisions which



Parties may be required to include as per law or being a publicly owned institution, as per its practices.

The signing of the Concession Agreement shall be completed within reasonable time of the issuance of the Letter of Acceptance to the Successful Bidder.

Expenses for the Concession Agreement

All incidental expenses of execution of the Concession Agreement shall be borne by the Successful Bidder.

14. Contacts during Bid Evaluation

Bids shall be deemed to be under consideration immediately after they are opened and until such time CESL makes official intimation of award/ rejection to the bidders. While the bids are under consideration, bidders and/ or their representatives or other interested parties are advised to refrain, save and except as required under the bidding documents, from contacting by any means, CESL and/ or their employees/representatives on matters related to the bids under consideration.

15. Confidentiality and Proprietary data

Information relating to the examination, clarification, evaluation and recommendation for the bidders shall not be disclosed to any person who is not officially concerned with the process or is not a retained professional advisor advising CESL in relation to, or matters arising out of, or concerning the bidding process. CESL will treat all information, submitted as part of the bid, in confidence and will require all those who have access to such material to treat the same in confidence. CESL may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/ or CESL or as may be required by law or in connection with any legal process.

All documents and other information supplied by the Authority or submitted by a Bidder to the Authority shall remain or become the property of the Authority.

Bidders are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their Bid. The Authority will not return any Bid or any information provided along therewith.

16. Fraudulent and Corrupt practices

- **16.1.** The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Bidding Process. Notwithstanding anything to the contrary contained herein, CESL may reject a Bid without being liable in any manner whatsoever to the Applicant if it determines that the Bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice in the Bidding Process.
- **16.2.** Without prejudice to the rights of CESL under Clause a) hereinabove, if a Bidder is found by CESL to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Bidding Process, such Bidder shall not be eligible to participate in any tender or RFP issued by CESL during a period of 2 (two) years from the date such Bidder is found by CESL to have directly or indirectly or through an agent, engaged or indulged in any



corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case may be.

16.3. For the purposes of this clause, the following terms shall have the meaning hereinafter respectively assigned to them:

"corrupt practice" means

- The offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the bidding process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of CESL who is or has been associated in any manner, directly or indirectly, with the bidding process or the LOA or has dealt with matters concerning the contract or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of CESL, shall be deemed to constitute influencing the actions of a person connected with the bidding process); or
- Engaging in any manner whatsoever, whether during the bidding process or after the issue of the LOA or after the execution of the contract, any person in respect of any matter relating to the project or the LOA or the contract or otherwise, who at any time has been or is a legal, financial or technical adviser of CESL in relation to any matter concerning the project;
- *"fraudulent practice"* means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the Bidding Process.
- *"coercive practice"* means impairing or harming, or threatening to impair or harm, directly or indirectly, any person or property to influence any person's participation or action in the Bidding Process.
- *"undesirable practice"* means (i) establishing contact with any person connected with or employed or engaged by CESL with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Bidding Process; or (ii) having a Conflict of Interest; and
- *"restrictive practice"* means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Bidding Process.

17. State Contribution as for Capital Funding

States may provide a capital expenditure subsidy for eBuses. The capital subsidy will be reflected as a price bid reduction by INR 0.25/km for Type-I bus services and INR 0.15/km for Type-III bus services for every INR 1 lakh of subsidy that the bidder is receiving from the State.

State subsidy from Haryana (As per information received from Haryana as part of EOI response)

- (i) Incentive upto INR 10 Lakh of 100 electric buses is reserved for buses used by Govt. and Govt. owned entities of Haryana
- (ii) 75% exemption of motor vehicle tax for eBuses purchased and registered in Haryana during policy period for 1st 1000 eBuses
- (iii) eBuses registration fee of INR 500 for all categories of eBuses for 1st 1000 eBuses

State subsidy from Delhi

(i) Delhi will be making available a subsidy under this tender and details will be provided as part of this document in due course as an attachment.



Details of subsidy shall be made available at least 7 days prior to close of the Tender.

Bank Guarantee should be furnished for the amount equivalent to State contribution, disbursed to the selected bidder(s). After bank guarantee of an amount equivalent to 100% of State incentive is furbished and the entire fleet is deployed as agreed upon in the Concession Agreement, the Bank Guarantee will be reduced at the rate of 20% annually until it reduces to 0 (zero) at the end of Year 5.

Installment No.	The activity being completed	Percentage of State incentive to be released by State Government
1	After the issue of supply order and signing of the agreement by Authority with selected bidders; as mobilization advance	20%
2	Delivery of Buses	40%
3	After 6 months of the successful commercial operation of Buses	40%

18. Indigenization requirement:

Bidder should comply indigenization of components as mentioned in Table 1 of Clause 22. This needs to be certified by the authorized testing agency.

19. Inspection and Procurement schedule:

The procurement of bus further after the award of contract shall be subject to prototype approval by CESL who may wish to subcontract this task to specialists. A team from CESL and participating Authority will visit operator's plant to inspect bus manufacturing at various stages as inspection and delivery schedule at the cost of the operator to check compliance with RFP bus specifications. It will carry out a detailed inspection and trial of the prototype bus to ensure compliance with RFP specifications including particularly bus battery capacity and range, quality of the bus and workmanship. Bidder should provide testing certificates as stated above with the Technical Bid which will comply the statutory requirements as stipulated in Motor Vehicles Act, 1988 /Central Motor Vehicle Rules including the CMVR Type Approval of the Electric bus offered at the time of delivery of vehicle.

The Authority will also carry out a test trial of the prototype bus operation systems to measure its performance in terms of battery capacity, battery range as well to ensure the compatibility of the charging requirement of electric bus with subsisting bus schedule. In case of any non-compliance in the final prototype bus, remedial work shall be immediately carried out by the operator at its own risk and cost. In the event of operator not being able to showcase a prototype bus meeting RFP specification within 60 days beyond the stipulated date of prototype delivery, then, it shall be considered an event of default by the operator leading to annulment of the award of contract and termination of the agreement

A detailed tentative timeline for the procurement is provided hereunder:

S.No	Details	Timeline	
1	Closing of bids (T0)	Т0	
2	Completion of technical Evaluation (T1)	T0 + 15 Days	



3	Opening of Financial Bids received by CESL and declaration of L1 (T2)	T0 + 20 Days
4	Price Matching (T3)	T0 + 25 Days
5	Sharing of prices with States and acknowledgement (T4)	T0 + 28 Days
6	Approval of Prices (T5)	T4 + 6 Weeks
8	Issuance of LoA by the STU/Authority to successful bidder(s) (T6)	T5 + 1 Week
9	Submission of performance security and signing of Concession agreement (T7)	T6 + 4 Weeks
10	Financial closure by the bidder, completion of conditions precedent and handover of depots by the STU/Authority (T8)	T7 + 8 Weeks
11	Prototype testing and approval of the same CESL/centralized testing agency, First Bus on Road (T9)	T8 + 12 Weeks

A detailed city wise deployment plan is presented in the table below.

Timeline	FY 2023-24 (D1)	FY 2024-25 (D2)
State/cities	T9+ 12 Months	D1 + 12 Months
Haryana	550	_
Telangana	240 (Type I) 250 (Type III)	260 (Type I) 250 (Type III)
Delhi	1990	1990
Arunachal Pradesh	10	_
Surat	150	_
Kerala	500	275

20. Governing Law and Jurisdiction

The Bidding Process shall be governed by, and construed in accordance with, the laws of India and the Courts at New Delhi shall have exclusive jurisdiction over all disputes arising under, pursuant to and/ or in connection with the Bidding Process.

CESL in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, to;

- i. Suspend and/ or cancel the bidding process and/ or amend and/ or supplement the bidding process or modify the dates or other terms and conditions relating thereto.
- ii. Consult with any Bidder in order to receive clarification or further information.
- iii. Retain any information and/ or evidence submitted to CESL by, on behalf of, and/ or in relation to any Bidder; and/ or
- iv. Independently verify, disqualify, reject and/ or accept any and all submissions or other information and/ or evidence submitted by or on behalf of any Bidder.



It shall be deemed that by submitting the Bid/ Eligibility and Qualification Submission, the Bidder agrees and releases CESL, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/ or performance of any obligations hereunder, pursuant hereto and/ or in connection with the Bidding Process and waives, to the fullest extent permitted by applicable laws, any and all rights and/or claims it may have in this respect, whether actual or contingent, whether present or in future.

21. Force Majeure

"Force Majeure" or "Force Majeure Event" shall mean, save and except as expressly provided otherwise, occurrence in India of any Non-Political Event, Indirect Political Event and Political Event, as defined in Article 29 of Concession Agreement.

22. Indigenization and Component wise manufacturing and origin information

S No.	Item Description
1	HVAC
2	Electric Compressor
3	Power and control Wiring harness along with connectors
4	MCB/Circuit breakers/ electric safety device
5	AC Charging Inlet: Type 2
6	DC Charging Inlet CCS2 / CHAdeMO
7	DC charging inlet BEVC DC 001
8	Traction Battery Pack
9	Wheel rim integrated with hub motor
10	DC – DC Convertor
11	Electronic Throttle
12	Vehicle Control Unit
13	On Board Charger
14	Traction Motor
15	Traction Motor Controller/ inverter
16	Instrument Panel
17	Lighting : Headlamp, Tail Lamp, Indicators, Interior Lamp, Flasher etc.
18	Body Panel

Table 1 - Compliance for indigenization of xEV parts of eBus

Note : Traction Battery pack to be assembled domestically, for which battery cells and associated thermal and battery management system may be imported.

Table 2 - Component wise Manufacturing and Origin Information

S No	Item Description	Domestic Value Addition	Level
1	Vehicle Control Unit	More than 25%	Tier 1



2	Traction Motor	More than 25%	Tier 1
3	Traction Motor controller/ Inverter	More than 25%	Tier 1
4	HVAC	More than 50%	Tier 1
5	Electric Compressor	More than 50%	Tier 2
6	Power Control wiring harness along with connectors	More than 50%	Tier 2
7	MCB /Circuit breakers/Electric safety device	More than 50%	Tier 2
8	AC charging inlet type 2	More than 50%	Tier 2
9	DC charging inlet CCS2.0	More than 25%	Tier 1
10	Traction Battery Pack	More than 25%	Tier 1
11	Wheel rim integrated with hub motor	More than 50%	Tier 2
12	DC -DC converter	More than 25%	Tier 1
13	Electronic Throttle	More than 25%	Tier 2
14	Instrument Panel	More than 25%	Tier 1
15	On Board Charger	More than 50%	Tier 2
16	Lightening: Headlamp, Tail Lamp, Indicators, Interior Lamp, Flasher etc.	More than 75%	Tier 2
17	Body Panel	100%	Tier 2
18	Brake System including ABS	More than 50%	Tier 1
19	Electric Vacuum Pump for brake booster	More than 50%	Tier 2
20	Steering system including electric/hydraulic assist system, electric pump	More than 75%	Tier 2
21	Switches/ selection knobs	More than 75%	Tier 2
22	Chassis	100%	Tier 2
23	Reverse parking alert system (RPAS)	More than 75%	Tier 2
24	Protection device as per AIS 075	100%	Tier 2
25	Vehicle Alarm system as per AIS 076	More than 25%	Tier 1
26	Vehicle location tracking system	More than 75%	Tier 2
27	Body control module	More than 50%	Tier 1
28	Axles	More than 25%	Tier 1
29	Suspension/ shocker absorber	More than 25%	Tier 1
30	Horn	More than 75%	Tier 3
31	Tires	100%	Tier 3
32	Windshield	75%	Tier 3
33	Wipers	More than 50%	Tier 3
34	Seats (Passenger & Driver)	100%	Tier 3
35	Ignition Key/ Button	100%	Tier 3
36	Parking brake	100%	Tier 3
37	Windows	100%	Tier 3
38	Door locks and hinges	100%	Tier 3
39	Main mirror & rear-view mirror	100%	Tier 3
40	Safety belt	100%	Tier 3
41	Air bags, if any	More than 50%	Tier 3
42	Bumper	100%	Tier 1
43	Infotainment system if any	More than 25%	Tier 1



44	Wheel rim	More than 75%	Tier 3
45	Battery Cell, associated thermal and battery management system	More than 25%	Tier 1
	8 9		
46	Battery Thermal Management System	More than 25%	Tier 1

Note: Basis the above table each Bidder has to ensure >50% domestic value Addition at vehicle level along with above mentioned norms to be certified by ICAT/ARAI/CIRT or any other testing agency notified under Rule 12 of the CMVR

Formula: {[Ex-Factory Price (Net of GST)- Import Content]/Ex-factory Price (Net of GST)} *100

Import Content: Sum of FOB Value of all imported components or materials in the final product including import duties.

OEM should submit the certification from the testing agency for compliance to the above-mentioned table.

Semiconductor and related components, Vehicle Control Unit, Reverse parking alert system (RPAS), Body Control Module, Vehicle Location Tracking System exempted from calculation for Domestic Value Content.

Commodity items, Tires (Natural Rubber, SBR, Carbon Black) exempted from calculation for Domestic Value Content.

Annexure-D

Price Bid Format

(Produced here for illustration purpose: to be filled-up ONLINE only)

Name of Work: Selection of bus operator for Procurement, Operation and Maintenance of 5,690 Electric Buses and development of allied electric and civil infrastructure on Gross Cost Contracting (GCC) under National E-Bus Program (NEBP).



1. Price Bid Format for Lot-1- (Department of Transport, Delhi)-1900 nos.

Sr No	Description of Bus	Uo M	Qty	Unit Rate (In Rs.) Exclusive of GST	Total Cost exclusive of GST (IGST/ CGST /SGST/ UGST) (in Rs.) on F.O.R. destination basis (in figure)	Total Cost exclusive of GST (IGST/ CGST/SGST/ UGST) (in Rs.) on F.O.R. destination basis (in words)
	1	2	3	4	5=3*4	6
1	12m Low Floor AC-Type-I	Per Km	1			

2. <u>Price Bid Format for Lot-2-(Telangana)-500 Nos.</u>

Sr No	Description of Bus	Uo M	Qty	Unit Rate (In Rs.) Exclusive of GST	Total Cost exclusive of GST (IGST/ CGST /SGST/ UGST) (in Rs.) on F.O.R. destination basis (in figure)	Total Cost exclusive of GST (IGST/ CGST/SGST/ UGST) (in Rs.) on F.O.R. destination basis (in words)
	1	2	3	4	5=3*4	6
1	12m Low Floor Non-AC -Type-I	Per Km	1			

3. Price Bid Format for Lot-3(Transport Department Haryana-375Nos. and Surat Municipal Corporation-150 Nos.) -525 Nos.

Sr No	Description of Bus	UoM	Qty	Unit Rate (In Rs.) Exclusive of GST	Total Cost exclusive of GST (IGST/ CGST /SGST/ UGST) (in Rs.) on F.O.R. destination basis (in figure)	Total Cost exclusive of GST (IGST/ CGST/SGST/ UGST) (in Rs.) on F.O.R. destination basis (in words)
	1	2	3	4	5=3*4	6
1	12m Standard floor AC -Type-I	Per Km	1			

4. Price Bid Format for Lot-4(Department of Transport, Delhi-1040 Nos. and Delhi Transport Corporation-1040



Nos.)- 2080 Nos.

Sr No	Description of Bus	UoM	Qty	Unit Rate (In Rs.) Exclusive of GST	Total Cost exclusive of GST (IGST/ CGST /SGST/ UGST) (in Rs.) on F.O.R. destination basis (in figure)	Total Cost exclusive of GST (IGST/ CGST/SGST/ UGST) (in Rs.) on F.O.R. destination basis (in words)
	1	2	3	4	5=3*4	6
1	9 m Low Floor AC -Type-I	Per Km	1			

5. Price Bid Format for Lot-5 (Transport Department Haryana-175 Nos., Kerela- 125 Nos. Department of Transport, Arunachal Pradesh-6 Nos.)-306 Nos.

Sr No	Description of Bus	UoM	Qty	Unit Rate (In Rs.) Exclusive of GST	Total Cost exclusive of GST (IGST/ CGST /SGST/ UGST) (in Rs.) on F.O.R. destination basis (in figure)	Total Cost exclusive of GST (IGST/ CGST/SGST/ UGST) (in Rs.) on F.O.R. destination basis (in words)
	1	2	3	4	5=3*4	6
1	9 m Standard Floor AC- Type-I	Per Km	1			

6. Price Bid Format for Lot-6 (Department of Transport, Arunachal Pradesh- 04 Nos.)-04 Nos.

Sr No	Description of Bus	UoM	Qty	Unit Rate (In Rs.) Exclusive of GST	Total Cost exclusive of GST (IGST/ CGST /SGST/ UGST) (in Rs.) on F.O.R. destination basis (in figure)	Total Cost exclusive of GST (IGST/ CGST/SGST/ UGST) (in Rs.) on F.O.R. destination basis (in words)
	1	2	3	4	5=3*4	6
1	7 m Standard Floor AC – Type-I	Per Km	1			

7. Price Bid Format for Lot-7 (Telangana-500 Nos. & Kerela -450) - 950 Nos.

Sr No	Description of Bus	UoM	Qty	Unit Rate (In Rs.) Exclusive of GST	Total Cost exclusive of GST (IGST/ CGST /SGST/ UGST) (in Rs.) on F.O.R. destination basis (in figure)	Total Cost exclusive of GST (IGST/ CGST/SGST/ UGST) (in Rs.) on F.O.R. destination basis (in words)
	1	2	3	4	5=3*4	6
1	12m standard floor- Non-AC (Inter-city)- Type-III	Per Km	1			

8. Price Bid Format for Lot-8 (Kerela - 200 nos.)- 200 Nos.

Sr No	Description of Bus	UoM	Qty	Unit Rate (In Rs.) Exclusive of GST	Total Cost exclusive of GST (IGST/ CGST /SGST/ UGST) (in Rs.) on F.O.R. destination basis (in figure)	Total Cost exclusive of GST (IGST/ CGST/SGST/ UGST) (in Rs.) on F.O.R. destination basis (in words)
	1	2	3	4	5=3*4	6
1	Optional-1	Per Km	1			

9. Price Format for Lot- (XXXXX CITY Nos. XXXX) *

Sr No	Description of Bus	UoM	Qty	Unit Rate (In Rs.) Exclusive of GST	Total Cost exclusive of GST (IGST/ CGST /SGST/ UGST) (in Rs.) on F.O.R. destination basis (in figure)	Total Cost exclusive of GST (IGST/ CGST/SGST/ UGST) (in Rs.) on F.O.R. destination basis (in words)
	1	2	3	4	5=3*4	6
1	Optional-2	Per Km	1			



*Note: Price bid format for Serial no-8 and 9 shall be used only for future upcoming cities with quantities or any other bus specifications which shall be communicated by CESL through appropriate amendment/corrigendum. In case, no upcoming requirement arise, then these two lots (8 and 9) need not be selected for quoting of price. In case of any doubt the bidder is advised to seek clarification during the Pre-bid Stage.

Notes applicable to above Table:

Base price per unit exclusive of GST(IGST/CGST/SGST/UGST) (in Rs.) on F.O.R Destination basis is per km Fee quoted

- 1. Prices once quoted shall remain firm, and only subject to escalation as per Fee Revision clauses in Volume II: Master Concession Agreement till completion/execution of the contractual assignments/work and till the Contract's validity's extension, if any.
- 2. Income tax, TDS etc. will be applicable as per existing government policies.
- 3. CESL have the rights to accept or reject any bid or part without assigning any reason.

I/we have read all the terms and conditions of the Tender/IFB/NIT and the Annexure(s) thereto and agree to accept and abide by the same in total. The above quotation has been prepared after taking into account all the terms and conditions of the Tender/IFB/NIT.

(SEAL)

Dated

Name and Address of Tenderer:

Phone no.....

Fax No.

Signature of Tenderer or their authorized representative



Supiature:-Subject: CN=MAHENDRA SINGH, SERIALNUMBER=6cbeabfc6d23672f81d4da801b75i 6722444d6ec7e96fa1c207cc28d61b8, ST=DELHI, OID.2.5,4.20=05647f7b32abf99668254344cba31cddfeb2b666927a5e1d6b 27acb4dd2fc, OU=SUPPLY CHAIN MANAGEMENT, O=ENERGY EFFICIENCY SERV ICES LIMTED, C=IN User ID : mahendra.singh Serial No: 162B840 PB : mahendra.singh(Mahendra Singh) Date: 02-12-2022 Annexure (Refer to para-4 of amendment no-3 to RfP)

(Declaration for GST Percentage by the Bidder)

Ref. NIT/BID Document No.:....

Description:

To,

CGM (SCM)

Convergence Energy Services Limited.

(A 100% EESL Owned Subsidiary)

Core-3, 2nd Floor,

SCOPE Complex, Lodhi Road, New Delhi-110003

Subject: Declaration for the GST percentage by the bidder

Reference GoI Letter vide...... Dated

Signature of bidder with stamp & Address

(*bidder has to mandatorily submit the declaration as above. The bid shall be evaluated on the basis of this declaration. Providing false information may lead to technically non-responsiveness of the bid)



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Aggregated Procurement, Operation and Maintenance of Electric Buses in Indian Cities (GCC Model)

National Electric Bus Progam(NEBP)

CONCESSION AGREEMENT



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Part I Preliminary



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CONCESSION AGREEMENT

BETWEEN

1 **THE [GOVERNOR] OF** [•] represented by [•], and having its offices at [•] (hereinafter referred to as the "Authority" which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns) of One **Part**;

AND

2 {***** Limited, a company incorporated under the provisions of the Companies Act, 2013 and having its registered office at, (hereinafter referred to as the "**Operator**" which expression shall, unless repugnant to the context or meaning thereof, include its successors and permitted assigns and substitutes) of the Other **Part**.

WHEREAS:

(A) Convergence Energy Services Limited (CESL), a subsidiary of EESL recently discovered lowest ever prices for the biggest ever tender of 5,450 electric buses in 5 cities through Grand Challenge under FAME India Scheme Phase-II. The rates discovered are 27% less than diesel and 25% less than CNG without subsidy. This was achieved by aggregating the demand and floating a unified tender with standardized parameters and contract terms.

(B) Based on this outcome, CESL has been requested by NITI Aayog and MoRTH to scale up the model and to play the role of program manager to deploy 50,000 electric vehicles under a "National Electric Bus Program (NEBP)".

(C) Subsequently, CESL floated an Expression of Interest (EoI) for Public Transport Agencies including State Road Transport Undertakings (SRTU) on date 12th July 2022. Accordingly, 5 entities had submitted demand for procurement of eBuses on a GCC model under a unified tender with CESL — a Program Manager for inviting proposals from qualified parties for supply, operation and maintenance of eBuses .

- (D) Based on the request made by the state transport Authorities, the Program Manager invited bids through its request for proposal -----, and as amended on [•] (the "Request for Proposals" or "RFP") from bidders for undertaking the Project.
- (E) After evaluation of the bids received, the Program Manager accepted the bid of the {selected bidder/ Consortium} (the "Selected Bidder") for the city of [●] (on behalf of the Authority) and issued a Letter of Award No. dated (hereinafter called the "LOA") to

¹ The provisions in curly parenthesis and blank spaces shall be retained in the draft Agreement and shall be suitably modified/ filled after completion of the bid process to reflect the particulars relating to the selected bidder and other post-bid particulars.



the Selected Bidder requiring, *inter alia*, the execution of this Agreement within 30 (thirty) days of the date of issue thereof.

- (F) In accordance with the terms of the RFP, the Selected Bidder has since promoted and incorporated the Operator as a limited liability company under the Companies Act 2013 and has requested the Program Manager and the Authority to accept the Operator as the entity which shall undertake and perform the obligations and exercise the rights of the Selected Bidder under the LOA, including the obligation to enter into this Agreement for undertaking the Project.
- (G) By its letter dated, the Operator has also joined in the said request of the Selected Bidder to the Program Manager and the Authority to accept it as the entity which shall undertake and perform the obligations and exercise the rights of the Selected Bidder including the obligation to enter into this Agreement pursuant to the LOA. The Operator has further represented to the effect that it has been promoted by the Selected Bidder for the purposes hereof.
- (H) The Program Manager and Authority have agreed to the said request of the Selected Bidder and the Operator, and the Parties have accordingly agreed to enter into this Agreement with the Operator for Supply, Operation and Maintenance of Buses, subject to and on the terms and conditions set forth hereinafter.

NOW THEREFORE in consideration of the foregoing and the respective covenants and agreements set forth in this Agreement, the sufficiency and adequacy of which is hereby acknowledged, and intending to be legally bound hereby, the Parties agree as follows:



ARTICLE-1 DEFINITIONS AND INTERPRETATION

1.1 Definitions

The words and expressions beginning with capital letters and defined in this Agreement (including those in Article 43) shall, unless the context otherwise requires, have the meaning ascribed thereto herein, and the words and expressions defined in the Schedules and used therein shall have the meaning ascribed thereto in the Schedules.

1.2 Interpretation

- 1.2.1 In this Agreement, unless the context otherwise requires,
 - (a) references to any legislation or any provision thereof shall include amendment or reenactment or consolidation of such legislation or any provision thereof so far as such amendment or re-enactment or consolidation applies or is capable of applying to any transaction entered into hereunder;
 - (b) references to laws of the State, laws of India or Indian law or regulation having the force of law shall include the laws, acts, ordinances, rules, regulations, bye laws or notifications which have the force of law in the territory of India and as from time to time may be amended, modified, supplemented, extended or re-enacted;
 - (c) references to a "**person**" and words denoting a natural person shall be construed as a reference to any individual, firm, company, corporation, society, trust, government, state or agency of a state or any association or partnership (whether or not having separate legal personality) of two or more of the above and shall include successors and assigns;
 - (d) the table of contents, headings or sub-headings in this Agreement are for convenience of reference only and shall not be used in, and shall not affect, the construction or interpretation of this Agreement;
 - (e) the words "**include**" and "**including**" are to be construed without limitation and shall be deemed to be followed by "**without limitation**" or "**but not limited to**" whether or not they are followed by such phrases;
 - (f) references to "**construction**" or "**building**" include, unless the context otherwise requires, investigation, design, developing, engineering, procurement, delivery, transportation, installation, processing, fabrication, testing, commissioning and other activities incidental to the construction, and "**construct**" or "**build**" shall be construed accordingly;
 - (g) references to "**development**" include, unless the context otherwise requires, construction, renovation, refurbishing, augmentation, upgradation and other activities incidental thereto, and "**develop**" shall be construed accordingly;
 - (h) any reference to any period of time shall mean a reference to that according to Indian Standard Time;



- (i) any reference to "hour" shall mean a period of 60 (sixty) minutes commencing either on the hour or on the half hour of the clock, which by way of illustration means 5.00 (five), 6.00 (six), 7.00 (seven) and so on being hours on the hour of the clock and 5.30 (five thirty), 6.30 (six thirty), 7.30 (seven thirty) and so on being hours on the half hour of the clock;
- (j) any reference to a day shall mean a reference to a calendar day;
- (k) reference to a "**business day**" shall be construed as reference to a day (other than a Sunday and public holiday) on which banks in [Delhi] are generally open for business;
- (1) any reference to a month shall mean a reference to a calendar month as per the Gregorian calendar;
- (m) any reference to a "**quarter**" shall mean a reference to the period of 3 (three) months commencing from April 1, July 1, October 1, and January 1, as the case may be;
- (n) references to any date, period or Project Milestone shall mean and include such date, period or Project Milestone as may be extended pursuant to this Agreement;
- (o) any reference to any period commencing "from" a specified day or date and "till" or "until" a specified day or date shall include both such days or dates; provided that if the last day of any period computed under this Agreement is not a business day, then the period shall run until the end of the next business day;
- (p) the words importing singular shall include plural and vice versa;
- (q) references to any gender shall include the other and the neutral gender;
- (r) "**lakh**" means a hundred thousand (100,000) and "**crore**" means ten million (10,000,000);
- (s) "**indebtedness**" shall be construed so as to include any obligation (whether incurred as principal or surety) for the payment or repayment of money, whether present or future, actual or contingent;
- (t) references to the "insolvency", or "reorganisation" of a company or corporation shall be construed so as to include any equivalent or analogous proceedings under the law of the jurisdiction in which such company or corporation is incorporated or any jurisdiction in which such company or corporation carries on business including the seeking of liquidation, winding-up, reorganisation, dissolution, arrangement, protection or relief of debtors;
- (u) save and except as otherwise provided in this Agreement, any reference, at any time, to any agreement, deed, instrument, licence or document of any description shall be construed as reference to that agreement, deed, instrument, licence or other document as amended, varied, supplemented, modified or suspended at the time of such reference; provided that this Sub-clause (u) shall not operate so as to increase liabilities or obligations of the Authority hereunder or pursuant hereto in any manner whatsoever;



- (v) any agreement, consent, approval, authorisation, notice, communication, information or report required under or pursuant to this Agreement from or by any Party shall be valid and effective only if it is in writing under the hand of a duly authorised representative of such Party in this behalf and not otherwise;
- (w) the Schedules and Recitals to this Agreement form an integral part of this Agreement and will be in full force and effect as though they were expressly set out in the body of this Agreement;
- (x) references to Recitals, Articles, Clauses, Sub-clauses, Provisos or Schedules in this Agreement shall, except where the context otherwise requires, mean references to Recitals, Articles, Clauses, Sub-clauses, Provisos and Schedules of or to this Agreement; reference to an Annex shall, subject to anything to the contrary specified therein, be construed as a reference to an Annex to the Schedule in which such reference occurs; and reference to a Paragraph shall, subject to anything to the contrary specified therein, be construed as a reference to a Paragraph of the Schedule or Annex, as the case may be, in which such reference appears;
- (y) the damages payable by either Party to the other of them, as set forth in this Agreement, whether on *per diem* basis or otherwise, are mutually agreed genuine pre-estimated loss and damage likely to be suffered and incurred by the Party entitled to receive the same and are not by way of penalty (the "Damages"); and
- (z) time shall be of the essence in the performance of the Parties' respective obligations. If any time period specified herein is extended, such extended time shall also be of the essence.
- 1.2.2 Unless expressly provided otherwise in this Agreement, any Documentation required to be provided or furnished by the Operator to the Authority and/or the Program Manager shall be provided free of cost and in three copies, and if the Authority and/or the Program Manager is required to return any such Documentation with their comments and/or approval, they shall be entitled to retain 2 (two) copies thereof.
- 1.2.3 The rule of construction, if any, that a contract should be interpreted against the Party responsible for the drafting and preparation thereof, shall not apply.
- 1.2.4 Any word or expression used in this Agreement shall, unless otherwise defined or construed in this Agreement, bear its ordinary English meaning and, for these purposes, the General Clauses Act, 1897 shall not apply.

1.3 Measurements and arithmetic conventions

All measurements and calculations shall be in the metric system and calculations done to 2 (two) decimal places, with the third digit of 5 (five) or above being rounded up and below 5 (five) being rounded down; provided that the drawings, engineering dimensions and tolerances may exceed 2 (two) decimal places as required.

1.4 Priority of agreements, clauses and schedules

1.4.1 This Agreement, and all other agreements and documents forming part of or referred to in this Agreement are to be taken as mutually explanatory and, unless otherwise expressly provided



elsewhere in this Agreement, the priority of this Agreement and other documents and agreements forming part hereof or referred to herein shall, in the event of any conflict between them, be in the following order:

- (a) this Agreement; and
- (b) all other agreements and documents forming part hereof or referred to herein, i.e. the Agreement at (a) above shall prevail over the agreements and documents at (b).
- 1.4.2 Subject to the provisions of Clause 1.4.1, in case of ambiguities or discrepancies within this Agreement, the following shall apply:
 - (a) between two or more Clauses of this Agreement, the provisions of a specific Clause relevant to the issue under consideration shall prevail over those in other Clauses;
 - (b) between the Clauses of this Agreement and the Schedules, the Clauses shall prevail and between Schedules and Annexes, the Schedules shall prevail;
 - (c) between any two Schedules, the Schedule relevant to the issue shall prevail;
 - (d) between the written description on the Drawings and the Specifications and Standards, the latter shall prevail;
 - (e) between the dimension scaled from the Drawing and its specific written dimension, the latter shall prevail; and
 - (f) between any value written in numerals and that in words, the latter shall prevail.



Part II Scope of the Agreement



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SCOPE OF THE AGREEMENT

2.1 Scope of the Agreement

The scope of the Agreement (the "**Scope of the Agreement**") shall mean and include, during the Contract Period:

- (a) design, manufacture, procurement and supply of buses conforming to the Specifications and Standards set forth in Schedule-B (the "**Buses**") and in accordance with the provisions of this Agreement;
- (b) Operation and Maintenance of Buses in accordance with the provisions of this Agreement;
- (c) Develop, Equip, Operate and Maintain the Maintenance Depots on the Depot Sites specified in Schedule-A, in accordance with the provisions of this Agreement.
- (d) Procurement and installation of the Charging Infrastructure at the Maintenance Depots for charging of the Buses.



AWARD OF CONCESSION

3.1 The Concession

3.1.1 Subject to and in accordance with the provisions of this Agreement, Applicable Laws and the Applicable Permits, the Authority hereby awards to the Operator the right to design, manufacture, procure, supply, Operate and Maintain the Buses, install, Operate and Maintain the Charging Infrastructure and develop, equip, Operate and Maintain the Maintenance Depots (the "**Concession**") for a period commencing on and from the Appointed Date and ending on the date

(i) falling 12 (twelve) years for Type-I bus services and 10 (ten) years for Type-II and Type-III services after the Scheduled COD (as the same may be extended in accordance with the terms of this Agreement); or

(ii) on which average utilisation of 10,00,000 km for all 7m, 9m standard floor, and 12 m Type-I buses; and 9,00,000 km for all 9m low floor Type-I Buses; 12,50,000 km for all Type-III buses and 16,00,000 km for all Type-III Buses is achieved, whichever is earlier, (the "Contract Period"), and the Operator hereby accepts the Concession and agrees to implement the same as its obligation subject to and in accordance with the terms and conditions set forth herein.

- 3.1.2 Subject to and in accordance with the provisions of this Agreement, the Concession hereby granted shall oblige or entitle (as the case may be) the Operator to:
 - (a) Design, manufacture, procure, and supply the Buses in accordance with Applicable Laws, Applicable Permits, the Specifications and Standards, the Designs and Drawings and the provisions of this Agreement;
 - (b) Operate and Maintain the Buses in accordance with Applicable Laws, Applicable Permits, Good Industry Practices and the provisions of this Agreement;
 - (c) Right of Way, access and licence in respect of the Depot Sites for performing its Maintenance Obligations in accordance with the provisions of this Agreement;
 - (d) Undertake the Fit Out Works and Operate and Maintain the Maintenance Depots in accordance with the provisions of this Agreement;
 - (e) Install, Operate and Maintain the Charging Infrastructure in accordance with the provisions of this Agreement;
 - (f) Perform and fulfil all of the Operator's obligations under and in accordance with this Agreement;
 - (g) Save as otherwise provided in this Agreement, bear and pay all costs, expenses and charges in connection with or incidental to the performance of the obligations of the Operator under this Agreement;
 - (h) Neither assign, transfer or sublet or create any lien or Encumbrance on this Agreement nor transfer, sub-lease, sub-licence or part possession of the Maintenance Depots and the real estate related thereto including the Depot Site, save and except as expressly permitted by this Agreement;



CONDITIONS PRECEDENT

4.1 Conditions Precedent

- 4.1.1 Save and except as provided in Articles 4, 7, 8, 9, 10, 13.4, 13.6, 16.5, 21, 29, 30, 35, 37, 39 and 42, or unless the context otherwise requires, the respective rights and obligations of the Parties under this Agreement shall be subject to the satisfaction in full of the conditions precedent specified in this Clause 4.1 (the "**Conditions Precedent**"). Provided, however, that a Party may grant a waiver from satisfaction of any Condition Precedent by the other Party in accordance with the provisions of Clauses 4.1.2 or 4.1.3, as the case may be, and to the extent of such waiver, that Condition Precedent shall be deemed to be fulfilled for the purposes of this Clause 4.1.1.
- 4.1.2 The Conditions Precedent required to be satisfied by the Authority prior to the Appointed Date shall be deemed to have been fulfilled when the Authority shall have:
 - (a) handed over to the Operator unencumbered and vacant possession and Right of Way to those Maintenance Depots that are required to be handed over prior to the Appointed Date, in accordance with the provisions of Clause 10.2.5;
 - (b) procured all Authority Applicable Permits as specified in Schedule-C;
 - (c) subject to Clause 4.1.3(b), executed the Escrow Agreement;
 - (d) subject to Clause 4.1.3(c), executed the Substitution Agreement;
 - (e) if not already provided as on the date of this Agreement, the Authority shall, within 30 (thirty) days from the date of this Agreement, submit the Deployment Plan to the Operator in accordance with Clause 16.5.
 - (f) Availability of upstream infrastructure as defined by clause 6.1 (a) including power availability for charging of buses prior to Commercial Operation Date (COD) of buses.

Provided that upon request in writing by the Authority, the Operator may, in its discretion, waive any of the Conditions Precedent set forth in this Clause 4.1.2. For the avoidance of doubt, the Operator may, in its sole discretion, grant any waiver hereunder with such conditions as it may deem fit.

- 4.1.3 The Conditions Precedent required to be satisfied by the Operator shall be deemed to have been fulfilled when the Operator shall have:
 - (a) on, or prior to, the date of this Agreement, provided the Performance Security to the Authority pursuant to Article 9;

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- (b) executed the Escrow Agreement;
- (c) executed the Substitution Agreement;

- (d) delivered to the Authority {from the Consortium Members, their respective}² confirmation, in original, of the correctness of their representations and warranties set forth in sub-clauses (k), (l) and (m) of Clause 7.1;
- (e) procured all the Operator Applicable Permits specified in Schedule-C required for the procurement of the Buses and the Fit Out Works, unconditionally or if subject to conditions, then, to the extent relevant, comply with all such conditions, such that the Operator Applicable Permits are and shall be kept in full force and effect as may be required under Applicable Laws;
- (f) executed the Financing Agreements and delivered to the Authority 3 (three) true copies thereof, duly attested by a Director of the Operator;
- (g) delivered to the Authority 3 (three) true copies of the Financial Package and the Financial Model, duly attested by a Director of the Operator, along with 3 (three) soft copies of the Financial Model in MS Excel version or any substitute thereof, which is acceptable to the Senior Lenders; and, if applicable, 3 (three) true copies of the Bus Lease Agreement(s)
- (h) complied with its obligations as set out in Clause 13.4; and
- (i) delivered to the Authority a legal opinion from the legal counsel of the Operator with respect to the authority of the Operator to enter into this Agreement and the enforceability of the provisions thereof.
- (*j*) and where the Buses are procured by the Operator under a lease, execution of a Bus Lease Agreements with the Lessor"

Provided that upon request in writing by the Operator, the Authority may, in its discretion, waive any of the Conditions Precedent set forth in this Clause 4.1.3. For the avoidance of doubt, the Authority may, in its sole discretion, grant any waiver hereunder with such conditions as it may deem fit.

- 4.1.4 Each Party shall make all reasonable endeavours to satisfy the Conditions Precedent within the time stipulated and shall provide the other Party with such reasonable cooperation as may be required to assist that Party in satisfying the Conditions Precedent for which that Party is responsible.
- 4.1.5 The Parties shall notify each other in writing, with a copy to the Program Manager, at least once a week on the progress made in satisfying the Conditions Precedent. Each Party shall promptly inform the other Party when any Condition Precedent for which it is responsible has been satisfied. For the avoidance of doubt, the Operator shall, upon satisfaction or waiver, as the case may be, of all the Conditions Precedent, notify the Authority and the Program Manager of the occurrence of the Appointed Date.

4.2 Satisfaction of the Conditions Precedent



² **Drafting Note** – Delete if not applicable.

- (a) Unless otherwise specified, the Operator and the Authority shall satisfy or procure the satisfaction of the Conditions Precedent that it is responsible for, within 60 (sixty) days from the date of this Agreement (the **Scheduled CP Satisfaction Date**).
- (b) If any Party fails to satisfy any Condition Precedent that it is required to fulfil by the Scheduled CP Satisfaction Date due to:
 - (i) a Force Majeure Event;
 - (ii) a Change in Law;
 - (iii) in case of the Operator, undue delay by the relevant Government Authority in granting any Operator Applicable Permit, despite the Operator having applied for such Operator Applicable Permit within the specified timelines, on payment of the prescribed fees and having complied with the requirements of Applicable Laws in making such application; or
 - (iv) delay by the other Party in fulfilling any Condition Precedent required to be satisfied by them or in performing any other obligation under this Agreement, which impacts its ability to satisfy its Conditions Precedent,

then the Scheduled CP Satisfaction Date for the affected Party shall be extended on a day-for-day basis for the period of such delay.

(c) Each Party shall cooperate and use its reasonable efforts to assist the other Party in satisfying its Conditions Precedent.

4.3 Damages for delay by the Authority

(a) In the event that the Authority does not procure fulfilment or waiver of the Conditions Precedent set forth in Clause 4.1.2 by the Scheduled CP Satisfaction Date (as the same may be extended in accordance with the provisions of Clause 4.2(b) above), or, within the time period specified for the fulfilment of such Condition Precedent, the Authority shall pay to the Operator Damages in an amount calculated at the rate of 0.1% (zero point one per cent) of the Performance Security for each day's delay beyond the Scheduled CP Satisfaction Date (as the same may be extended in accordance with the provisions of Clause 4.2(b) above) until the fulfilment of such Conditions Precedent, subject to a maximum of 20% (twenty per cent) of the Performance Security. If the Authority delays in fulfilling its Conditions Precedent such that the cap on Damages set out herein is breached, then the Authority may continue to pay the Operator Damages in an amount calculated at the rate of 0.1% (zero point one per cent) of the Performance Security for each additional day's delay and if the Authority fails to pay such Damages, the Operator may, in its sole discretion, terminate the Agreement. Provided that in the event of a delay by the Operator in procuring fulfilment of any of its Conditions Precedent specified in Clause 4.1.3 and where such delay impacts the Authority's ability to fulfil any of its Conditions Precedents, no Damages shall be due or payable by the Authority under this Clause 4.3 until the date on which the Operator shall have procured fulfilment of the relevant Conditions Precedent specified in Clause 4.1.3.



5722444d6cc7e96fa1c207cc28d61b8, 5T=DELHI, OID,25.4,17=110003, 0 D,2.5.4,20=56477fb32ab199668823434cba31cbdfeb2b686c27a561d6b ?7acb4dd2fc, OU=SUPPLY CHAIN MANAGEMENT, O=ENERGY EFFICIENCY SER CES LIMTED, C=IN Jser ID : mahendra.singh Serial No: 1562840 B3 : mahendra.singh(Mahendra Singh) 75 : Mahendra.singh(Mahendra Singh) 76 : mahendra.singh(Mahendra Singh) (b) Upon a termination of this Agreement pursuant to Clause 4.3(a), the Authority shall return the Performance Security submitted by the Operator subject to the Operator having paid in full any amounts due and payable by it to the Authority as on the date of termination.

4.4 Damages for delay by the Operator

- (a) In the event that (i) the Operator does not procure fulfilment or waiver of any or all of the Conditions Precedent set forth in Clause 4.1.3 by the Scheduled CP Satisfaction Date (as the same may be extended in accordance with the provisions of Clause 4.2(b) above), or, within the time period specified for the fulfilment of such Condition Precedent, the Operator shall pay to the Authority Damages in an amount calculated at the rate of 0.1% (zero point one per cent) of the Performance Security for each day's delay until the fulfilment of such Conditions Precedent, subject to a maximum amount equal to the Bid Security, and upon reaching such maximum, the Authority may, in its sole discretion and subject to the provisions of Clause 9.2, terminate the Agreement. Provided that in the event of delay by the Authority in procuring fulfilment of the Condition Precedent specified in Clause 4.1.2 and where such delay impacts the Operator's ability to fulfil any of its Conditions Precedents, no Damages shall be due or payable by the Operator under this Clause 4.3 until the date on which the Authority shall have procured fulfilment of the relevant Conditions Precedent specified in Clause 4.1.2.
- (b) Upon a termination of this Agreement pursuant to Clause 4.4(a), the Authority shall encash the Performance Security submitted by the Operator.

4.5 Deemed Termination upon delay

Without prejudice to the provisions of Clauses 4.2, 4.3 and 4.4 and subject to the provisions of Clause 9.2, the Parties expressly agree that in the event the Appointed Date does not occur, for any reason whatsoever, before 400 (four hundred) days of the date of this Agreement or any other mutually extended period agreed by the Parties, all rights, privileges, claims and entitlements of the Operator under or arising out of this Agreement shall be deemed to have been waived by, and to have ceased with the concurrence of the Operator, and the Agreement shall be deemed to have been terminated by mutual agreement of the Parties. Provided, however, that in the event the delay in occurrence of the Appointed Date is on account of the Authority failing to fulfil its Conditions Precedent, the Authority shall return the Performance Security submitted by the Operator subject to the Operator failing to fulfil its Conditions Precedent, the Authority failing to fulfil its Conditions Precedent, the Operator failing to fulfil its Conditions Precedent of the Operator failing to fulfil its Conditions Precedent, the Authority shall encash the Performance Security submitted by the Operator.



OBLIGATIONS OF THE OPERATOR

5.1 Obligations of the Operator

- 5.1.1 The Operator shall procure finance for, and at its sole cost and expense, the procurement, supply, Operations and Maintenance of the Buses as per the Procurement Schedule provided in Schedule-G hereto for providing the services in accordance with the Deployment Plan, Applicable Laws, Applicable Permits, Good Industry Practice and the terms and conditions of this Agreement.
- 5.1.2 Without affecting the generality of the provisions contained in Clause 5.1.1 above, the Operator shall procure at its cost and expense, all Operator Applicable Permits from Government Instrumentalities including but not limited to the certificate of registration, certification of fitness from the relevant Regional Transport Office (RTO) having jurisdiction over the Project for all Buses and shall Operate and Maintain the Buses in accordance with the terms and conditions of this Agreement.
- 5.1.3 Subject to and on the terms and conditions of this Agreement, the Operator shall, at its own cost and expense, undertake the Fit Out Works and Operation and Maintenance of the Maintenance Depots for the maintenance of Buses and shall observe, fulfil, comply with and perform all its obligations set out in this Agreement or arising hereunder.
- 5.1.4 Subject to and on the terms and conditions of this Agreement, the Operator shall, at its own cost and expense, undertake the design, engineering, procurement, installation and Operation and Maintenance of the Charging Infrastructure and shall observe, fulfil, comply with and perform all its obligations set out in this Agreement or arising hereunder.
- 5.1.5 The Operator shall procure, install, operate and maintain adequate metering equipment for the Charging Infrastructure to accurately record throughout the term of this Agreement the electricity consumed for charging the Buses.
- 5.1.6 The Operator shall comply with all Applicable Laws and Applicable Permits (including renewals as required) in the performance of its obligations under this Agreement.
- 5.1.7 Save and except as otherwise provided in this Agreement or Applicable Laws, as the case may be, the Operator shall, in discharge of all its obligations under this Agreement, conform with and adhere to Good Industry Practice.
- 5.1.8 The Operator shall, at its own cost and expense, in addition to and not in derogation of its obligations elsewhere set out in this Agreement:
 - (a) make, or cause to be made, necessary applications to the relevant Government Instrumentalities with such particulars and details as may be required for obtaining the Operator Applicable Permits and any other Applicable Permits other than the Authority Applicable Permits, and obtain and keep in force and effect such Applicable Permits in conformity with Applicable Laws;



- (b) make, or cause to be made, necessary applications to the relevant Government Instrumentalities with such particulars and details as may be required for obtaining renewals or extensions of any Authority Applicable Permits after the Appointed Date;
- (c) procure, as required, the appropriate proprietary rights, licences, agreements and permissions for materials, methods, processes, know-how and systems used or incorporated into the Buses, Maintenance Depots and Charging Infrastructure;
- (d) perform and fulfil its obligations under the Financing Agreements;
- (e) make reasonable efforts to maintain harmony and good industrial relations among the personnel employed by it or its Contractors in connection with the performance of its obligations under this Agreement;
- (f) ensure and procure that its Contractors comply with all Operator Applicable Permits and Applicable Laws and Good Industry Practices in the performance by them of any of the Operator's obligations under this Agreement;
- (g) bear and pay for all electricity consumed for the purposes of performing the Operator's obligations or exercising its rights under this Agreement, including without limitation, all electricity required for, or in relation to the Fit Out Works, Operation and Maintenance of the Maintenance Depot (including the Charging Infrastructure) and Operation & Maintenance of the Buses (which, for the avoidance of doubt includes any electricity required for charging the Buses), provided that the Operator may claim from the Authority such amounts towards reimbursement of such electricity cost pursuant to Clause 22.5;
- (h) always act in a manner consistent with the provisions of this Agreement and not omit or cause or fail to do any act, deed or thing, whether intentionally or otherwise, which may in any manner be violative of any of the provisions of this Agreement;
- (i) ensure that Users are treated with due courtesy and provided with ready access to services and information;
- (j) support, cooperate with and facilitate the Authority in the implementation and operation of the Project in accordance with the provisions of this Agreement;
- (k) take all reasonable precautions for the prevention of accidents on or around the Maintenance Depots and provide all reasonable assistance and emergency medical aid to accident victims; and
- (1) vacate and handover peaceful possession of the Maintenance Depots to the Authority upon Termination of this Agreement or expiry of the Contract Period, in accordance with the provisions of this Agreement.

5.2 Obligations relating to Project Agreements

5.2.1 It is expressly agreed that the Operator shall, at all times, be responsible and liable for all its obligations under this Agreement notwithstanding anything contained in any other Project Agreements or any other agreement, and no default under any other Project Agreement or agreement shall excuse the Operator from its obligations or liability hereunder.



- 5.2.2 The Operator shall submit to the Authority the drafts of all Project Agreements (to which the Authority is not a party) or any amendments or replacements thereto for its review and comments, and the Authority shall have the right but not the obligation to undertake such review and provide its comments, if any, to the Operator within 15 (fifteen) days of the receipt of such drafts. Within 7 (seven) days of execution of any Project Agreement or amendment thereto, the Operator shall submit to the Authority a true copy thereof, duly attested by a Director or any person authorised by the Board of Directors of the Operator, for its record. For the avoidance of doubt, it is agreed that the review and comments hereunder shall be limited to ensuring compliance with the terms of this Agreement. It is further agreed that any failure or omission of the Authority to review and/ or comment hereunder shall not be construed or deemed as acceptance of any such agreement or document by the Authority. No review and/or observation of the Authority and/or its failure to review and/or convey its observations on any document shall relieve the Operator of its obligations and liabilities under this Agreement in any manner nor shall the Authority be liable for the same in any manner whatsoever.
- 5.2.3 The Operator shall not make any addition, replacement or amendments to any of the "Financing Agreements" without the prior written consent of the Authority if such addition, replacement or amendment has, or may have, the effect of increasing the Total Project Cost, and in the event that any replacement or amendment is made without such consent, the Operator shall not enforce such replacement or amendment nor permit enforcement thereof against the Authority. For the avoidance of doubt, and subject to this Clause 5.2.3, no prior consent of the Authority shall be required for restructuring or rescheduling of the debt of the Operator provided such restructuring or rescheduling does not result in an increase in the Total Project Cost.
- 5.2.4 Notwithstanding anything to the contrary contained in this Agreement, the Operator shall not sub-lease, sub-license, assign or in any manner create an Encumbrance on the Depot Sites, without prior written approval of the Authority, which approval the Authority shall not unreasonably withhold or delay unless, such sub-lease, sub-licence, assignment or Encumbrance has or may have a material adverse effect on the rights and obligations of the Authority under this Agreement or Applicable Laws.
- 5.2.5 The Operator shall procure that each of the Project Agreements or Bus Lease Agreements contains provisions that entitle the Authority to step into such agreement, in its sole discretion, in substitution of the Operator in the event of Termination or Suspension (the "Covenant"). For the avoidance of doubt, it is expressly agreed that in the event the Authority does not exercise such rights of substitution within a period not exceeding 90 (ninety) days from the Transfer Date, the Project Agreements shall be deemed to cease to be in force and effect on the Transfer Date without any liability whatsoever on the Authority and the Covenant shall expressly provide for such eventuality subject to the Operator issuing a notice of reminder to the Authority at least 15 (fifteen) days prior to the expiry of the aforesaid 90 (ninety) day period. The Operator expressly agrees to include the Covenant in all its Project Agreements and undertakes that it shall, in respect of each of the Project Agreements, procure and deliver to the Authority an acknowledgment and undertaking, in a form acceptable to the Authority, from the counter party(ies) of each of the Project Agreements, whereunder such counter party(ies) shall acknowledge and accept the Covenant and undertake to be bound by the same and not to seek any relief or remedy whatsoever from the Authority in the event of Termination or Suspension.



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5.2.6 Notwithstanding anything to the contrary contained in this Agreement, the Operator agrees and acknowledges that selection or replacement of an O&M Contractor and execution of the O&M Contract shall be subject to the prior approval of the Authority from national security and public interest perspective, the decision of the Authority in this behalf being final, conclusive and binding on the Operator, and undertakes that it shall not give effect to any such selection or contract without prior approval of the Authority. Provided however, that this Clause 5.2.6 shall not apply to any subcontracts entered into by the Operator for the provision of any housekeeping or basic office support staff services. For the avoidance of doubt, it is expressly agreed that approval of the Authority under this Clause 5.2.6 shall be limited to national security and public interest perspective, and the Authority shall endeavour to convey its decision thereon expeditiously. It is also agreed that the Authority shall not be liable in any manner on account of grant or otherwise of such approval and that such approval or denial thereof shall not in any manner absolve the Operator or its Contractors from any liability or obligation under this Agreement. To be clear, the Operator may subcontract to other agencies, but a change in the Operator itself shall be approved by the Authority.

5.3 Obligations relating to Change in Ownership

- 5.3.1 The Operator shall not undertake or permit any Change in Ownership, except with the prior written approval of the Authority.
- 5.3.2 Notwithstanding anything to the contrary contained in this Agreement, the Operator agrees and acknowledges that:
 - (a) all acquisitions of Equity by an acquirer, either by himself or with any person acting in concert, directly or indirectly, including by transfer of the direct or indirect legal or beneficial ownership or control of any Equity, in aggregate 25% (twenty five per cent) or more of the total Equity of the Operator; or
 - (b) acquisition of any control directly or indirectly of the Board of Directors of the Operator by any person either by himself or together with any person or persons acting in concert with him,

shall constitute a Change in Ownership requiring prior approval of the Authority from national security and public interest perspective, the decision of the Authority in this behalf being final, conclusive and binding on the Operator, and undertakes that it shall not give effect to any such acquisition of Equity or control of the Board of Directors of the Operator without such prior approval of the Authority. For the avoidance of doubt, it is expressly agreed that approval of the Authority pursuant to this Clause 5.3.2 hereunder shall be limited to a national security and public interest perspective, and the Authority shall endeavour to convey its decision thereon expeditiously. It is also agreed that the Authority shall not be liable in any manner on account of grant or otherwise of such approval and that such approval or denial thereof shall not in any manner absolve the Operator from any liability or obligation under this Agreement. It is further agreed that in the event of any acquisition of shares or control in the Selected Bidder (or Lead Member in case of a consortium) or its holding company by another entity, which results in a Change in Ownership as set forth in this Clause 5.3.2, the Operator shall inform the Authority of such occurrence within 15 (fifteen) days thereof and seek consent of the Authority under and in accordance with the provisions of this Clause 5.3. In the event the Authority denies its consent to such Change in Ownership, a Change in Ownership in breach of this Clause 5.3 shall be deemed to have occurred.

For the purposes of this Clause 5.3.2:



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- the expression "acquirer", "control" and "person acting in concert" shall have the meaning ascribed thereto in the Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeover) Regulations, 2011 or any statutory re-enactment thereof as in force as on the date of acquisition of Equity, or the control of the Board of Directors, as the case may be, of the Operator;
- (ii) the indirect transfer or control of legal or beneficial ownership of Equity shall mean transfer of the direct or indirect beneficial ownership or control of any company or companies whether in India or abroad which results in the acquirer acquiring control over the shares or voting rights of shares of the Operator; and
- (iii) power to appoint, whether by contract or by virtue of control or acquisition of shares of any company holding directly or through one or more companies (whether situate in India or abroad) the Equity of the Operator, not less than half of the directors on the Board of Directors of the Operator or of any company, directly or indirectly whether situate in India or abroad, having ultimate control of 25% (twenty five per cent) or more of the Equity of the Operator shall constitute acquisition of control, directly or indirectly, of the Board of Directors of the Operator.

5.4 Obligations relating to employment of foreign nationals

The Operator acknowledges, agrees and undertakes that employment of foreign personnel by the Operator and/or its Contractors and their sub-contractors shall be subject to grant of requisite regulatory permits and approvals including employment/residential visas and work permits, if any required, and the obligation to apply for and obtain the same shall and will always be of the Operator and, notwithstanding anything to the contrary contained in this Agreement, refusal of or inability to obtain any such permits and approvals by the Operator or any of its Contractors or sub-contractors shall not constitute Force Majeure Event, and shall not in any manner excuse the Operator from the performance and discharge of its obligations and liabilities under this Agreement. Provided that, the Authority shall provide reasonable assistance to the Operator, if required, in relation to applying for any employment/residential visas and work permits in accordance with Clause 6.1.2(1).

5.5 Obligations relating to employment of personnel

- 5.5.1 The Operator shall ensure that the personnel engaged by it in the performance of its obligations under this Agreement are at all times properly trained for their respective functions.
- 5.5.2 The Operator shall, notwithstanding its obligations contained herein for employment and training of staff, undertake capacity building training and workshops for the Operations and Maintenance of the Buses and Maintenance Depots and other infrastructure., as may be directed by the Authority and in accordance with Article 23 hereto.
- 5.5.3 The Operator shall ensure that the personnel engaged by it in the performance of its obligations under this Contract are at all times properly trained and possess the requisite skill and qualifications as per Good Industry Practice and Applicable Laws for undertaking their respective functions as provided in Article 23 of this Agreement.



- 5.5.4 The operator shall ensure 25% (twenty five) of drivers are women and shall provide adequate training to meet the eligibility criteria set forth in Schedule-N. Operator shall provide adequate women-friendly facilities at depots.
- 5.5.5 Prior to engaging any driver for operating the Buses, the Operator shall ensure that each such driver receives a combination of classroom instruction and behind-the-wheel instruction as specified in Article 23, sufficient to enable each driver to operate the Bus in a safe and efficient manner in terms of this Agreement.
- 5.5.6 The Operator shall ensure that each driver receives a refresher training course from time to time in accordance with Good Industry Practices and Applicable Laws during the Contract Period as specified in Clause 23.2.
- 5.5.7 The Authority may require the Operator to immediately remove any staff member/ personnel employed by the Operator for the purpose of the Project, who in the opinion of the Authority:
 - (a) persists in any misconduct;
 - (b) is incompetent or negligent in the performance of his duties;
 - (c) fails to conform with any provisions of this Agreement; or
 - (d) persists in any conduct which is prejudicial to the safety and security of the passengers and general public,

in each case, subject to provision of reasonable evidence.

- 5.5.8 The Operator shall be solely and exclusively responsible for all drivers, employees, workmen, personnel and staff employed or contracted for the purposes of implementing the Project. The Operator shall ensure that all personnel and staff are under its continued supervision to (i) provide Bus Service in a safe and efficient manner to the public; and (ii) carry out all other obligations of the Operator as set out in this Agreement. Provided however the Authority shall not be liable for payment of any sum or give compensation for any claim (including but not limited to compensation on account of death/ injury/ termination) of such nature to such foregoing personnel and staff of the Operator at any point of time during the Contract Period or thereafter; the Operator undertakes to hold harmless and keep the Authority indemnified in this regard for any claim for payment raised by such foregoing persons or any third party.
- 5.5.9 The Operator shall ensure that all drivers, personnel and staff wear uniforms as approved by the Authority. The Operator shall at its own cost and expense, provide uniforms and shall ensure that drivers and any other personnel and staff employed by it shall, at all times, wear clean uniforms while on duty or doing any act in relation to the Project.
- 5.5.10 The Operator shall be responsible for all the costs and expenses for employment of drivers and other personnel including but not limited to expenses for travel, training of its employees, and payment to vendors engaged by the Operator in connection with the implementation of this Project.
- 5.5.11 The Operator shall make efforts to maintain harmony and good industrial relations among the labour and personnel employed in connection with the performance of the Operator's obligations under this Agreement by exercising appropriate supervision and control;



5.5.12 The Operator shall be responsible for employing any and all manpower, personnel, labour, etc., as may be required to be deployed by it for implementation of the Project and as such the Operator on an exclusive basis shall be responsible for exercising supervision and control over such manpower, personnel, labour, etc. For all intents and purposes under this Contract, the Operator alone shall be the principal employer in terms of the provisions of the Factories Act, 1948 and the Contract Labour (Regulation and Abolition) Act, 1970 in respect of such manpower, personnel, labour, etc. The Authority shall at no point of time be concerned in any manner whatsoever with any employee or labour related issues of such manpower, personnel, labour, etc. of the Operator and shall not have any liability or responsibility towards them. The Operator shall keep the Authority indemnified for all claims that may arise due to Operator's non-compliance with any provisions of this Clause 5.5.12.

5.6 Advertisement and Branding of Buses

The Buses or any part thereof shall not be branded in any manner to advertise, display or reflect the name or identity of the Operator or its shareholders, save to the extent as provided in Clause 16.7. Provided that, the Operator may affix the brand logo, make and model of the Bus at the front and rear end of the Bus. The Operator undertakes that it shall not, in any manner, use the name or identity of its shareholders to advertise or display its own identity, brand equity or business interests, including those of its shareholders, save and except as may be necessary in the normal course of business. For the avoidance of doubt, it is agreed that the Operator may, at every Maintenance Depot, display its own name at a spot where other public notices are displayed for the Users.

5.7 Obligations regarding risk of loss or damage

- 5.7.1 The Operator shall bear the risk of loss in relation to each Bus for the performance of its Operation and Maintenance obligations hereunder.
- 5.7.2 Notwithstanding the Operator's obligations under Article 37, the Operator shall take or cause to be taken all steps necessary under Applicable Laws to protect the Authority against claims by other parties with respect thereto in accordance with the terms and provisions of this Agreement.

5.8 Obligations relating to information

- 5.8.1 Without prejudice to the provisions of Applicable Laws and this Agreement, upon receiving a notice from the Authority for any information that it may reasonably require or that it considers may be necessary to enable it to perform any of its functions, the Operator shall provide such information to the Authority forthwith and in the manner and form required by the Authority.
- 5.8.2 After receiving a notice from the Authority for reasoned comments on the accuracy and text of any information relating to the Operator's activities under or pursuant to this Agreement which the Authority proposes to publish, the Operator shall provide such comments to the Authority in the manner and form required by the Authority.

5.9 Obligations relating to aesthetic quality

The Operator shall maintain a high standard in the appearance and aesthetic quality of the Buses, the Maintenance Depot and the Project as a whole and achieve integration of the Buses



Maintenance Depots and Charging Infrastructure with the character of the surrounding landscape through both appropriate design and sensitive management of all visible elements. The Operator shall engage a professional architect, town planner and consultants of repute for ensuring that the design of the Buses and Maintenance Depots meets the aforesaid aesthetic standards.

5.10 Obligations relating to noise control

The Operator shall take all such measures as may be necessary in accordance with Applicable Laws and Good Industry Practice to control and mitigate the noise arising from the Buses and the Maintenance Depots and its impact on the Users and the surrounding neighbourhood.

5.11 Facilities for physically challenged and elderly persons

The Operator shall, in conformity with the guidelines issued from time to time by the Ministry of Social Justice and Empowerment, or a substitute thereof, procure a barrier free environment for the physically or visually challenged and for elderly persons using the Buses. To the extent that Good Industry Practices require the implementation of higher standards than those set out by the Ministry of Social Justice and Empowerment, or a substitute thereof, the Operator shall adhere to such higher standards.

5.12 Obligations relating to Charging Infrastructure

The Operator agrees that it shall procure, construct, install and provide the Charging Infrastructure at the Maintenance Depots such that each Maintenance Depot is capable of Overnight Charging a minimum 50 (fifty) Buses and opportunity charging of Buses for a maximum period of 45 (forty five) minutes in accordance with the Deployment Plan. The Operator agrees that it shall ensure that the Charging Infrastructure installed at the Maintenance Depots are used only for the purpose of charging of Buses and no other purpose whatsoever.



OBLIGATIONS OF THE AUTHORITY

6.1 Obligations of the Authority

- 6.1.1 The Authority shall, at its own cost and expense undertake, comply with and perform all its obligations set out in this Agreement or arising hereunder.
- 6.1.2 The Authority agrees to provide support to the Operator and undertakes to observe, comply with and perform, subject to and in accordance with the provisions of this Agreement and Applicable Laws, the following:
 - (a) as a part of the Deployment Plan, provide the Operational Routes to be undertaken by the Operator as detailed in Clause 16.4 herein and in accordance with the Deployment Plan;
 - (b) subject to and on the terms and conditions of this Agreement, the Authority shall handover peaceful and unencumbered possession of Maintenance Depots, which meet the Minimum Maintenance Depot Specifications, to the Operator in accordance with the timelines set out in Clause 10.2.5;
 - (c) provide the Operator with adequate Right of Way and license to use the Maintenance Depots in accordance with the provisions of this Agreement;
 - (d) at its own cost and expense, provide, or cause to be provided, road connectivity (sufficient for the movement of the Buses and other vehicles and machinery required for the Operation and Maintenance of the Maintenance Depots) to the nearest motorable road, at any location at the boundary of the Maintenance Depots in accordance with Clause 12.1;
 - (e) procure and provide to the Operator, electricity connections (at the available HT metering level, which for the avoidance of doubt may be a 6/11/22/33 kV connection) and sub-station up to 415 V at the locations of the Maintenance Depots specified in Schedule-A for charging of the Buses and operation of the Charging Infrastructure, along with all requisite permissions, approvals and licenses in relation to the utilisation by the Operator of such electricity connection;
 - (f) bear the cost of additional electricity charges payable in relation to the charging of the Buses in accordance with Clause 22.5;
 - (g) procure and provide access and connections, at its cost, to municipal water and sewage disposal utilities for the Maintenance Depots, provided that the Operator shall remain liable to pay any regular bills raised by the relevant Government Instrumentality for the use of such utilities;
 - (h) upon written request from the Operator, provide (to the extent required under this Agreement) the Operator with competent and trained employees to assist the Operator in carrying out its duties under this Agreement;



- upon written request from the Operator, and subject to the Operator complying with Applicable Laws, provide all reasonable support and assistance to the Operator in procuring the Operator Applicable Permits,;
- (j) not do or omit to do any act, deed or thing which may in any manner be violative of any of the provisions of this Agreement;
- (k) support, cooperate with and facilitate the Operator in the implementation and operation of the Project in accordance with the provisions of this Agreement;
- (1) upon written request from the Operator and subject to the provisions of Clause 5.4, provide reasonable assistance to the Operator and any expatriate personnel of the Operator or its Contractors to obtain applicable visas and work permits for the purposes of discharge by the Operator or its Contractors their obligations under this Agreement.
- (m) The Authority shall endeavour to earn green revenues accruable from mitigation of greenhouse gases as a result of implementation of the Project, if available under Applicable Law. The Authority CESL shall also undertake to prepare the project for availing green revenues and get these registered under the Clean Development Mechanism ("CDM") under Applicable Laws or any other such mechanism available during the Contract Period. The Operator can not avail carbon credits from CDM under this project.
- (n) The Authority shall bear passenger tax from revenue collection and/or from applicable passenger taxes levied by State Transport Authorities from operations in jurisdictions outside the registered state for interstate operations. Additionally, the authority shall also bear the cost of tolls from operations of buses as per the deployment schedule. The above mentioned costs shall be reimbursed to the operator by the authority on submission of actual receipts by the operator.



REPRESENTATIONS AND WARRANTIES

7.1 **Representations and warranties of the Operator**

The Operator represents and warrants to the Authority that:

- it is duly organised and validly existing under the laws of India, and has full power and (a) authority to execute and perform its obligations under this Agreement and to carry out the transactions contemplated hereby;
- (b) it has taken all necessary corporate and other actions under Applicable Laws to authorise the execution and delivery of this Agreement and to validly exercise its rights and perform its obligations under this Agreement;
- (c) along with its Associates, it has the financial standing and capacity to undertake the Project in accordance with the terms of this Agreement;
- this Agreement constitutes its legal, valid and binding obligation, enforceable against (d) it in accordance with the terms hereof, and its obligations under this Agreement will be legally valid, binding and enforceable obligations against it in accordance with the terms hereof;
- (e) it is subject to the laws of India, and hereby expressly and irrevocably waives any immunity in any jurisdiction in respect of this Agreement or matters arising thereunder including any obligation, liability or responsibility hereunder;
- (f) the information furnished in the Bid and as updated on or before the date of this Agreement is true and accurate in all respects as on the date of this Agreement;
- the execution, delivery and performance of this Agreement will not conflict with, result (g) in the breach of, constitute a default under, or accelerate performance required by any of the terms of its Memorandum and Articles of Association {or those of the Selected Bidder/ any member of the Consortium} or any Applicable Laws or any covenant, contract, agreement, arrangement, understanding, decree or order to which it is a party or by which it or any of its properties or assets is bound or affected;
- (h) there are no actions, suits, proceedings, or investigations pending or, to its knowledge, threatened against it at law or in equity before any court or before any other judicial, quasi-judicial or other authority, the outcome of which may result in the breach of this Agreement or which individually or in the aggregate may result in any material impairment of its ability to perform any of its obligations under this Agreement;
- (i) it has no knowledge of any violation or default with respect to any order, writ, injunction or decree of any court or any legally binding order of any Government Instrumentality which may result in any material adverse effect on its ability to perform its obligations under this Agreement and no fact or circumstance exists which may give rise to such proceedings that would adversely affect the performance of its obligations under this Agreement;



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- (j) it has complied with Applicable Laws in all material respects and has not been subject to any fines, penalties, injunctive relief or any other civil or criminal liabilities which in the aggregate have or may have a material adverse effect on its ability to perform its obligations under this Agreement;
- (k) it shall at no time undertake or permit any Change in Ownership except in accordance with the provisions of Clause 5.3; and that the {Selected Bidder/ Consortium Members}, together with {its/their} Associates, shall hold not less than 51% (fifty one per cent) of its issued and paid up Equity till the completion of 3 years from COD and 26% of its issued and paid up Equity thereafter; and that the Lead Member shall hold not less than 38% (thirty eight percent) of its issued and paid up Equity; and that no Member of the Consortium (i) whose technical and financial capacity was evaluated for the purposes of selection in response to the Request for Proposal; or (ii) who is an original equipment manufacturer (including its Associates or Affiliates), shall hold less than 26% (twenty six per cent) of the issued and paid up Equity, or (b) Equity corresponding to 5% of the Total Project Cost, whichever is higher, till the expiry of the Contract Period;
- (1) {the Selected Bidder/ Consortium Members and its/their} Associates have the financial standing and resources to fund the required Equity and to raise the debt necessary for undertaking and implementing the Project in accordance with this Agreement;
- (m) {the Selected Bidder/ each Consortium Member} is duly organised and validly existing under the laws of the jurisdiction of its incorporation, and has requested the Authority to enter into this Agreement with the Operator pursuant to the Letter of Award, and has agreed to and unconditionally accepted the terms and conditions set forth in this Agreement;
- (n) all its rights and interests in the Buses (if applicable pursuant to Clause 33.4), Maintenance Depots (including the Charging Infrastructure) shall pass to and vest in the Authority on the Transfer Date free and clear of all liens, claims and Encumbrances, without any further act or deed on its part or that of the Authority, and that none of the Project Assets shall be acquired by it, subject to any agreement under which a security interest or other lien or Encumbrance is retained by any person, save and except as expressly provided in this Agreement;
- no representation or warranty by it contained herein or in any other document furnished by it to the Authority or to any Government Instrumentality in relation to Applicable Permits contains or will contain any untrue or misleading statement of material fact or omits or will omit to state a material fact necessary to make such representation or warranty not misleading;
- (p) no sums, in cash or kind, have been paid or will be paid, by it or on its behalf, to any person by way of fees, commission or otherwise for securing the Agreement or entering into this Agreement or for influencing or attempting to influence any officer or employee of the Authority in connection therewith; and
- (q) all information provided by the {Selected Bidder/ Consortium Members} in response to the Request for Qualification and Request for Proposals or otherwise, is to the best of its knowledge and belief, true and accurate in all material respects



7.2 Representations and warranties of the Authority

The Authority represents and warrants to the Operator that:

- (a) it has full power and authority to execute, deliver and perform its obligations under this Agreement and to carry out the transactions contemplated herein and that it has taken all actions necessary to execute this Agreement, exercise its rights and perform its obligations, under this Agreement;
- (b) it has taken all necessary actions under Applicable Laws to authorise the execution, delivery and performance of this Agreement;
- (c) it has the financial standing and capacity to perform its obligations under this Agreement;
- (d) this Agreement constitutes a legal, valid and binding obligation enforceable against it in accordance with the terms hereof;
- (e) it has no knowledge of any violation or default with respect to any order, writ, injunction or any decree of any court or any legally binding order of any Government Instrumentality which may result in any material adverse effect on the Authority's ability to perform its obligations under this Agreement;
- (f) it has complied with Applicable Laws in all material respects;
- (g) it has good and valid right to the Depot Sites and Maintenance Depots, and has power and authority to grant a licence, in respect thereto to the Operator;
- (h) it shall not at any time during the term hereof, interfere with peaceful exercise of the rights and discharge of the obligations by the Operator, subject to and in accordance with the provisions of this Agreement; and
- (i) it shall enable personnel of the Operator to travel on board the Buses for the purpose of discharging the Maintenance Obligations in accordance with the provisions of this Agreement and Good Industry Practice.

7.3 Disclosure

In the event that any occurrence or circumstance comes to the attention of either Party that renders any of its aforesaid representations or warranties untrue or incorrect, such Party shall immediately notify the other Party of the same. Such notification shall not have the effect of remedying any breach of the representation or warranty that has been found to be untrue or incorrect nor shall it adversely affect or waive any right, remedy or obligation of either Party under this Agreement.



ndra.singh(Mahendra Singh)

DISCLAIMER

8.1 Disclaimer

- 8.1.1 The Operator acknowledges that prior to the execution of this Agreement, the Operator has, after a complete and careful examination, made an independent evaluation of the Request for Proposal, this Agreement, the Specifications and Standards, the Depot Sites, local conditions, physical qualities of ground, subsoil and geology and all information provided by the Authority, the Program Manager or obtained, procured or gathered otherwise, and has determined to its satisfaction the accuracy or otherwise thereof and the nature and extent of difficulties, risks and hazards as are likely to arise or may be faced by it in the course of performance of its obligations hereunder. Save as provided in Clause 7.2, the Authority makes norepressentation whatsoever, express, implicit or otherwise, regarding the accuracy, adequacy, correctness, reliability and/or completeness of any assessment, assumption, statement or information provided by it and the Operator confirms that it shall have no claim whatsoever against the Authority in this regard.
- 8.1.2 The Operator acknowledges and hereby accepts the risk of inadequacy, mistake or error in or relating to any of the matters set forth in Clause 8.1.1 above and hereby acknowledges and agrees that the Authority shall not be liable for the same in any manner whatsoever to the Operator, the {Selected Bidder/ Members of Consortium} and its Associates or any person claiming through or under any of them.
- 8.1.3 The Parties agree that any mistake or error in or relating to any of the matters set forth in Clause 8.1.1 above shall not vitiate this Agreement.
- 8.1.4 In the event that either Party becomes aware of any mistake or error relating to any of the matters set forth in Clause 8.1.1, that Party shall immediately notify the other Party, specifying the mistake or error; provided, however, that a failure on part of the Authority to give any notice pursuant to this Clause 8.1.4 shall not prejudice the disclaimer of the Authority contained in Clause 8.1.1 and shall not in any manner shift to the Authority any risks assumed by the Operator pursuant to this Agreement.
- 8.1.5 Except as otherwise provided in this Agreement, all risks relating to the Agreement shall be borne by the Operator and the Authority shall not be liable in any manner for such risks or the consequences thereof.



Part III Development and Operations



PERFORMANCE SECURITY

9.1 **Performance Security**

- 9.1.1 The Operator shall, for the performance of its obligations hereunder till the expiry of the Contract Period, provide to the Authority, on or prior to, the date of this Agreement, an irrevocable and unconditional guarantee from a Bank for a sum equivalent to Rs. [**** (Rupees ******)]³ in the form set forth in Schedule-D (the "**Performance Security**"). Until such time the Performance Security is provided by the Operator pursuant hereto and the same comes into effect, the Bid Security shall remain in force and effect, and upon such provision of the Performance Security pursuant hereto, the Authority shall release the Bid Security to the Operator.
- 9.1.2 Notwithstanding anything to the contrary contained in this Agreement, in the event Performance Security is not provided by the Operator within a period of 180 (one hundred and eighty) days from the date of this Agreement, the Authority may encash the Bid Security and appropriate the proceeds thereof as Damages, and thereupon all rights, privileges, claims and entitlements of the Operator under or arising out of this Agreement shall be deemed to have been waived by, and to have ceased with the concurrence of the Operator, and this Agreement shall be deemed to have been terminated by mutual agreement of the Parties.

9.2 Appropriation of Performance Security

- 9.2.1 The Authority shall, without prejudice to its other rights and remedies hereunder or in law, be entitled to encash and appropriate, from time to time and as many times as required by the Authority, from the Performance Security such amounts as may be due to it under this Agreement, including in respect of any Damages payable by the Operator for a failure to perform its obligations under this Agreement, for an Operator Default or for failure to meet any Condition Precedent, in accordance with the terms of this Agreement.
- 9.2.2 Upon any encashment and appropriation from the Performance Security by the Authority, the Operator shall, within 15 (fifteen) days thereof, replenish, in case of partial appropriation, to its original level the Performance Security, and in case of appropriation of the entire Performance Security provide a fresh Performance Security, as the case may be, and the Operator shall, within the time so granted, replenish or furnish fresh Performance Security as aforesaid failing which the Authority shall be entitled to terminate this Agreement in accordance with Article 32.

9.3 Release of Performance Security

9.3.1 The Performance Security shall remain in force and effect during the Contract Period and shall be returned to the Operator within 30 (thirty) days from the date on which the Contract Period expires or upon Termination of this Agreement due to an Authority Default within 120 (one hundred and twenty) days of the Termination Date, without any interest, subject to any deductions which may be made by the Authority in respect of any amounts due and payable by the Operator to the Authority in accordance with the terms of this Agreement.

ICES LIMITED, C=IN User ID : mahendra.singh Serial No : 162B840 PB : mahendra.singh(Mahendra Singh 34 Date : 02-12-2022

³ Calculated at approximately 3% (three per cent) of the amount specified in the definition of Total Project Cost.

9.3.2 If the Performance Security is scheduled to expire before the expiry of the Contract Period, then the Operator shall obtain an extension of the Performance Security or furnish a new Performance Security in the form set forth in Schedule-D at least 30 (thirty) days prior to the expiry of the Performance Security. If the Operator fails to extend or replace the Performance Security, the Authority shall be entitled to claim the entire amount then available under the Performance Security and retain such amount as a cash security until such time as the Operator submits an extension or replacement of the Performance Security to the satisfaction of the Authority



Subject: CN=MAHENDRA SINGH, SERIALNUMBER=6cbeabfc6d23672f8144da80: 6722444d6ec72d6fa1c207cc28d61b8, ST=DELH, OID,2:5,4:17=110003, O ID,2:5,4:20=5e8477f052abf996686234344cba1cbdfeb2b686c927a5e1d6b 27acb4d02fc, OL=SUPPLY CHAIN MANAGEMENT, O=ENERGY EFFICIENCY SERV ICES LIMITED, C=IN User ID: mahendra.singh Serial No: 162B840 P8: mahendra.singh(Mahendra Singh) 55 Date: 0:2-12-2022

RIGHT OF WAY FOR DEPOTS

10.1 Site for the Maintenance Depots

The site(s) for the Maintenance Depots shall comprise the real estate described in Schedule-A and in respect of which a license shall be provided and granted by the Authority to the Operator as a licensee under and in accordance with this Agreement (the "**Depot Site**(s)") in order for the Operator to carry out and perform its obligations under this Agreement.

10.2 Licence and Right of Way for Maintenance Depots

- 10.2.1 The Authority hereby grants to the Operator access to the Depot Site(s) for carrying out, at its sole risk and expense, any surveys, investigations and soil tests that the Operator may deem necessary prior to the Appointed Date. The Operator expressly agrees that the Authority shall have no liability whatsoever in respect of any survey, investigations and tests carried out or work undertaken by the Operator on or about the Depot Site(s) pursuant hereto in the event of Termination or otherwise.
- 10.2.2 In consideration of the license fee of Re.1 (Rupee One) per annum, this Agreement and the covenants and warranties on the part of the Operator herein contained, the Authority, in accordance with the terms and conditions set forth herein, hereby grants to the Operator, effective from the dates specified in this Clause 10.2, leave and licence rights in respect of the Maintenance Depots at is the locations described, delineated and shown in Schedule-A hereto (the "Licensed Premises"), free of any Encumbrances, to develop, equip, operate and maintain the said Licensed Premises, together with all and singular rights, liberties, privileges, easements and appurtenances whatsoever to the said Licensed Premises, any part thereof belonging to or in any way appurtenant thereto or enjoyed therewith, for the duration of this Agreement and, solely for the purposes permitted under this Agreement, and for no other purpose whatsoever.
- 10.2.3 The Authority shall ensure that the Maintenance Depots handed over to the Operator under this Agreement comply in all respects with the Minimum Maintenance Depot Specifications.
- 10.2.4 The Authority shall, in accordance with the timelines prescribed in Clause 4.1.2, provide and grant to the Operator, vacant access, constructive possession and licenses to possess the following Maintenance Depots:
 - (a) the Maintenance Depot situated at {****}; and
 - (b) the Maintenance Depot situated at $\{***\}^4$.
- 10.2.5 On and from the Appointed Date, the Authority shall provide and grant to the Operator, vacant access, constructive possession and license to possess additional Maintenance Depots in line with the Procurement Schedule so as to enable the Operator to deploy the Buses in accordance with the Deployment Plan. The timeline accordance with this Clause 10.2.5 below:

⁴ **Drafting Note** – List of Maintenance Depots being handed over by the Authority prior to the Appointed Date to be finalized and populated at the time of signing.



- (a) within 6 (six) months after the Appointed Date, the Authority shall handover the Maintenance Depot(s) situated at {****};
- (b) within 12 (twelve) months after the Appointed Date, the Authority shall handover the Maintenance Depot(s) situated at {****}; and
- (c) within 18 (eighteen) months after the Appointed Date, the Authority shall handover the Maintenance Depot(s) situated at {****}.

(each of the above dates, a "Scheduled Maintenance Depot Handover Date").

- 10.2.6 Subject to Clause 10.2.7 below, in the event that the Authority fails to provide vacant access, constructive possession and license to possess the Maintenance Depots specified in Clause 10.2.5 above, which comply with the Minimum Maintenance Depot Specifications, on or prior to the respective Scheduled Maintenance Depot Handover Date, it shall pay to the Operator as Damages, Rs. 10,000 (Rupees ten thousand) per day per depot for each day of delay until, for all the Maintenance Depots required to be handed over by the Authority, vacant access, constructive possession and license to possess thereof is delivered to the Operator in accordance with the requirements of this Agreement.
- 10.2.7 If the Authority is unable to handover, to the Operator, Maintenance Depots which meet the Minimum Maintenance Depot Specifications by the relevant Scheduled Maintenance Depot Handover Date, then the Authority may, by way of a written notice provided at least 30 (thirty) days prior to the relevant Scheduled Maintenance Depot Handover Date, require the Operator to takeover possession and control of the Maintenance Depot on an "as is where is" basis. On and from the date on which the Operator takes over peaceful, vacant and unencumbered possession of the Maintenance Depot, the Operator shall, at the cost of the Authority and without prejudice to its obligations to carry out the Fit Out Works, undertake and perform all such works and activities that may be required in order to ensure that the Maintenance Depot meets the Minimum Maintenance Depot Specifications. The scope of work required to be undertaken by the Operator in this regard, including the costs payable by the Authority for such work, shall be mutually discussed and agreed by the Parties by way of a Change of Scope Order. The Operator shall also be entitled to a mutually agreed extension of the Scheduled Maintenance Depot Completion Date, with such extension being not less than 90 (ninety) days.
- 10.2.8 Notwithstanding the provisions of Clause 10.2.2, the licence granted in respect of the Licensed Premises hereunder shall expire in respect of such Licensed Premises upon the transfer of the relevant Maintenance Depots upon the early termination or expiry of this Agreement.
- 10.2.9 The Operator hereby irrevocably appoints the Authority (acting directly or through a nominee) to be its true and lawful attorney, to execute and sign in the name of the Operator, a transfer or surrender of the license granted/ to be granted hereunder at any time after the Contract Period has expired or has been terminated earlier in terms hereof, sufficient proof of which will be the declaration of any duly authorised officer of the Authority, and the Operator consents to it being registered for this purpose.

10.3 Handover of the Licensed Premises

10.3.1 For each Maintenance Depot that is to be handed over to the Operator pursuant to the terms of this Agreement, after the Appointed Date, the Authority's Representative and the Operator shall, on a mutually agreed date and time, inspect the Licensed Premises and prepare a



memorandum containing an inventory of the Licensed Premises including the vacant and unencumbered land, buildings, structures, road works and trees on or attached to the Licensed Premises. Such memorandum shall have appended thereto a statement (the "**Appendix**") specifying in reasonable detail those parts of the Licensed Premises to which vacant possession has not been granted to the Operator. Signing of the memorandum, in two counterparts (each of which shall constitute an original), by the authorised representatives of the Parties shall, subject to the provisions of Clause 10.2.2, be deemed to constitute a valid licence and Right of Way to the Operator for free and unrestricted use and development of the vacant and unencumbered Licensed Premises during the Contract Period under and in accordance with the provisions of this Agreement and for no other purpose whatsoever. For the avoidance of doubt, it is agreed that possession with respect to the parts of the Licensed Premises as set forth in the Appendix shall be deemed to have been granted to the Operator upon vacant access thereto being provided by the Authority to the Operator.

- 10.3.2 Without prejudice to the provisions of Clause 10.3.1, the Parties hereto agree that the Authority shall have granted vacant possession and Right of Way to the Licensed Premises such that the Appendix shall not include more than 10% (ten per cent) of the total area of the Licensed Premises and in the event Financial Close is delayed solely on account of delay in grant of such vacant access and Right of Way, the Authority shall be liable to payment of Damages under and in accordance with the provisions of Clause 21.1.1.
- 10.3.3 On and after signing the memorandum referred to in Clause 10.3.1, and until the Transfer Date, the Operator shall maintain a round-the-clock vigil over the Licensed Premises and shall ensure and procure that no encroachment thereon takes place, and in the event of any encroachment or occupation on any part thereof, the Operator shall report such encroachment or occupation forthwith to the Authority and undertake its removal at its cost and expenses.
- 10.3.4 The Authority shall make best efforts to procure and grant, no later than 30 (thirty) days from the relevant Scheduled Maintenance Depot Handover Date, the Right of Way to the Operator in respect of all land included in the Appendix, and in the event of delay for any reason other than Force Majeure or breach of this Agreement by the Operator, it shall pay to the Operator, Damages in a sum calculated at the rate of Rs. 1,000 (Rupees one thousand) per day for every 500 (five hundred) square metres or part thereof, commencing from the 31st (thirty first) day after the Scheduled Maintenance Depot Handover Date and until such Right of Way is procured.
- 10.3.5 The Operator may, if so requested by the Authority, procure on behalf of the Authority, on the terms and to the extent specified by the Authority, the additional land required for ancillary buildings or for construction of works specified in any Change of Scope Order issued under Article 15, in accordance with this Agreement and upon procurement, such land shall form part of the Licensed Premises and vest in the Authority; provided that the Operator may, by notice given to the Authority no later than 60 (sixty) days from the Appointed Date or the date of Change of Scope Order, as the case may be, require the Authority to initiate and undertake proceedings for acquisition of such land under the provisions of the Applicable Laws and the Authority shall take all such steps as may be reasonably necessary for such land acquisition forthwith. Provided further that the cost of land acquired under this Clause 10.3.5 shall be borne by the Authority in accordance with Applicable Laws and that the land to be acquired by the Authority hereunder as a part of the Licensed Premises shall be deemed to be included in the Appendix referred to in this Clause 10.3 and dealt with in accordance with the provisions thereof. For the avoidance of doubt, it is agreed that the minimum area of land to be acquired for the ancillary buildings, electric sub-stations and approach roads thereof shall conform to



the provisions of Schedule-A. It is further agreed that the Authority may, at any time after the Bid Date, *suo moto* acquire the land required hereunder.

10.4 Maintenance Depot to be free from Encumbrances

The Maintenance Depots made available by the Authority to the Operator pursuant hereto shall be free from all Encumbrances and occupations and without the Operator being required to make any payment to the Authority on account of any costs, compensation, expenses and charges for the acquisition, development, possession and use of such Licensed Premises for the duration of the Contract Period, except insofar as otherwise expressly provided in this Agreement.

10.5 Protection of Site from encroachments

During the Contract Period, the Operator shall protect the Licensed Premises from any and all occupations, encroachments or Encumbrances, and shall not place or create nor permit any Contractor or other person claiming through or under the Operator to place or create any Encumbrance or security interest over all or any part of the Licensed Premises or the Project Assets, or on any rights of the Operator therein or under this Agreement, save and except as otherwise expressly set forth in this Agreement.

10.6 Access to the Authority

The licence, Right of Way and right to the Licensed Premises granted to the Operator hereunder shall always be subject to the right of access of the Authority and their employees and agents for inspection, viewing and exercise of their rights and performance of their obligations under this Agreement.

10.7 Geological and archaeological finds

It is expressly agreed that mining, geological or archaeological rights do not form part of the license granted to the Operator under this Agreement, and the Operator hereby acknowledges that it shall not have any mining rights or interest in the underlying minerals, fossils, antiquities, structures or other remnants or things either of particular geological or archaeological interest. Such rights, interest and property on or under the Depot Sites shall vest in and belong to the Authority or the concerned Government Instrumentality. The Operator shall take all reasonable precautions to prevent its workmen or any other person from removing or damaging such interest or property and shall inform the Authority and any other concerned Government Instrumentality forthwith of the discovery thereof and comply with such instructions as the Authority or the concerned Government Instrumentality may reasonably give for the removal of such property. For the avoidance of doubt, it is agreed that any reasonable expenses incurred by the Operator hereunder shall be reimbursed by the Authority and to the extent that the Fit Out Works have been impeded as a result, the Operator shall be given an extension of time. It is also agreed that the Authority shall procure that the instructions hereunder are issued by the concerned Government Instrumentality within a reasonable period so as to enable the Operator to continue the Fit Out Works with such modifications as may be deemed necessary.

10.8 Felling of trees

The Authority shall procure any Applicable Permits required for felling of trees to be identified by the Operator for this purpose if and only if such trees cause a material adverse effect on the



Signature :-Subject : CN=MAHENDRA SINGH, SERIALNUMBER=6cbeabfc6d23672f81d4da801 6722444d6ec7e96fa1c207cc28d61b8, ST=DELHI, OID.2.5.4.17=110003, O ID.2.5.4.20=5e477fb32abf99668823434cba31cd6feb2b666c927a5e1d6b 27acb4dd2fc, OU=SUPPLY CHAIN MANAGEMENT, O=ENERGY EFFICIENCY SERV ICSE LIMITED, C=IN User ID :- mahendra.singh Serial No: 1628840 PB :- mahendra.singh(Mahendra Singh 20 ate: 0.2-12-2022 Fit Out Works or the Operation and Maintenance of the Maintenance Depots, as the case may be. In the event of any delay in felling thereof for reasons beyond the control of the Operator, it shall be excused for failure to perform any of its obligations hereunder if such failure is a direct consequence of delay in the felling of trees. For the avoidance of doubt, the costs and expense in respect of felling of trees shall be borne by the Operator and any revenues thereof shall be paid to the Authority.

10.9 Unforeseen Site Conditions

If, after the Maintenance Depots are handed over the Operator in accordance with this Article 10, the Operator encounters any adverse physical conditions at the Licensed Premises, which could not have been reasonably foreseen by acting in accordance with Good Industry Practices, the Operator may seek a Change of Scope in accordance with Article 15. Upon receipt of a request for a Change of Scope due to unforeseen conditions relating to the Licensed Premises, if, in the opinion and sole discretion of the Authority, such conditions could not have been reasonably foreseen by a prudent developer acting in accordance with Good Industry Practices, then the Authority shall issue a Change of Scope Order in accordance with Article 15. Any decision of the Authority regarding the existence of any unforeseen conditions relating to the Licensed Premises shall be final and binding.



UTILITIES, ASSOCIATED ROADS AND TREES

11.1 Existing utilities and roads

Notwithstanding anything to the contrary contained herein, the Operator shall ensure that the respective entities owning the existing roads, right of way or utilities on, under or above the Depot Site(s) are enabled by it to keep such utilities in continuous satisfactory use, if necessary, by providing suitable temporary or permanent diversions with the authority of the controlling body of that road, right of way or utility, and the Authority shall, upon written request from the Operator, initiate and undertake at its cost, legal proceedings for acquisition of any right of way necessary for such diversion.

11.2 Shifting of obstructing utilities

The Operator shall, subject to Applicable Laws and with assistance of the Authority, undertake shifting of any utility including electric lines, water pipes and telephone cables, to an appropriate location or alignment within or outside the Depot Site if and only if such utility causes or shall cause a Material Adverse Effect on the Fit Out Works, Operation or Maintenance of the Maintenance Depots. The cost of such shifting shall be borne by the Authority or by the entity owning such utility, if the Authority so directs, and in the event of any delay in shifting thereof, the Operator shall be excused for failure to perform any of its obligations hereunder if such failure is a direct consequence of delay on the part of the entity owning such electric lines, water pipes or telephone cables, as the case may be.

11.3 New utilities and transport systems

11.3.1 The Operator shall allow, subject to such conditions as the Authority may specify, access to, and use of the Depot Sites for laying telephone lines, water pipes, electric cables or other public utilities. Where such access or use causes any financial loss to the Operator, to the Authority shall pay compensation or damages as per Applicable Laws. For the avoidance of doubt, it is agreed that use of the Depot Site(s) under this Clause shall not in any manner relieve the Operator of its obligation to undertake the Fit Out Works and Operate and Maintain the Maintenance Depot in accordance with this Agreement and any damage caused by such use shall be restored forthwith.



COMPLETION OF THE MAINTENANCE DEPOTS

12.1 Road Connectivity

The Authority shall, at its own cost and expense, provide, or cause to be provided road connectivity (sufficient for the movement of the Buses and other vehicles and machinery required for the Operation and Maintenance of the Maintenance Depots) between the boundary of the relevant Maintenance Depot and the nearest motorable road, by no later than the timeline specified in Clause 10.2.4 and 10.2.5.

12.2 Obligations prior to commencement of construction

Prior to commencement of the Fit Out Works, the Operator shall:

- (a) submit to the Authority its detailed design, construction methodology, quality assurance procedures, and the procurement, engineering and construction time schedule for completion of the Fit Out Works at the Maintenance Depots (including installation of the Charging Infrastructure);
- (b) appoint its representative duly authorised to deal with the Authority in respect of all matters under or arising out of or relating to this Agreement;
- (c) undertake, do and perform all such acts, deeds and things as may be necessary or required before commencement of the Fit Out Works under and in accordance with this Agreement, the Applicable Laws and Applicable Permits; and
- (d) make its own arrangements for quarrying of materials needed, if any, for the Maintenance Depot under and in accordance with the Applicable Laws and Applicable Permits.

12.3 Maintenance during Fit Out Period

While undertaking the Fit Out Works, the Operator shall maintain, at its cost, the existing roads along the alignment of the Maintenance Depots so that their traffic worthiness and safety are at no time materially inferior as compared to their condition 7 (seven) days prior to the date on which such Maintenance Depots are handed over by the Authority, and shall undertake the necessary repair and maintenance works for this purpose; provided that the Operator may, at its cost, interrupt and divert the flow of traffic if such interruption and diversion is necessary for the efficient progress of the Fit Out Works and conforms to Good Industry Practice. For the avoidance of doubt, it is agreed that the Operator shall at all times be responsible for ensuring safe operation of the existing roads along the alignment of the Maintenance Depots.

12.4 Drawings

In respect of the Operator's obligations relating to the Drawings of the Maintenance Depots as set forth in Schedule-F, the following shall apply:

(a) The Operator shall prepare and submit, with reasonable promptness, 3 (three) copies each of all Drawings to the Authority for review.



- (b) By submitting the Drawings for review to the Authority, the Operator shall be deemed to have represented that it has determined and verified that the design and engineering of the Fit Out Works, including the field construction criteria related thereto, are in conformity with the Scope of the Agreement, Specifications and Standards, Applicable Laws and Good Industry Practice.
- (c) Within 15 (fifteen) days of the receipt of the Drawings, the Authority shall review the same and convey its observations to the Operator with particular reference to their conformity or otherwise with the Scope of the Agreement and the Specifications and Standards. The Operator shall not be obliged to await the observations of the Authority on the Drawings submitted pursuant hereto beyond the said 15 (fifteen) days period and may begin or continue the Fit Out Works at its own discretion and risk. However, if the Authority fails to provide its observations on the Drawings submitted by the Operator within 30 (thirty) days of receipt of such Drawings, the Drawings shall be deemed to be approved subject to the Operator issuing a notice of reminder to the Authority at least 7 (seven) days prior to the expiry of the aforesaid 30 (thirty) day period.
- (d) If the aforesaid observations of the Authority indicate that the Drawings are not in conformity with the Scope of the Agreement or the Specifications and Standards, such Drawings shall be revised by the Operator and resubmitted to the Authority for review. The Authority shall give its observations, if any, within 7 (seven) days of receipt of the revised Drawings.
- (e) No review and/or observation of the Authority and/or its failure to review and/or convey its observations on any Drawings shall relieve the Operator of its obligations and liabilities under this Agreement in any manner nor shall the Authority be liable for the same in any manner.
- (f) Within 90 (ninety) days of the issuance of the Maintenance Depot Completion Certificate for each Maintenance Depot, the Operator shall furnish to the Authority a complete set of as-built Drawings, in 2 (two) hard copies and in its editable digital format or in such other medium and manner as may be acceptable to the Authority, reflecting the Fit Out Works actually designed, engineered and constructed, including an as-built survey illustrating the layout of the Maintenance Depots and setback lines, if any, of the buildings and structures.

12.5 Completion of the Maintenance Depots

- 12.5.1 On and from the date on which the Authority hands over possession of each of the Maintenance Depots to the Operator pursuant to Clause 10.2.4, 10.2.5 or 10.2.6, as the case may be, the Operator shall undertake the Fit Out Works for such Maintenance Depot in conformity with the Specifications and Standards set forth in Schedule-B. Subject to Clause 10.2.6, the Operator shall complete the Fit Out Works within 60 (sixty) days from the date on which each Maintenance Depot is handed over by the Authority pursuant to Clause 10.2.4 and 10.2.5 (each date the "Scheduled Maintenance Depot Completion Date").
- 12.5.2 In the event that the Operator fails to complete the Fit Out Works by the Scheduled Maintenance Depot Completion Date (as may be extended in accordance with the terms of this Agreement),



unless such failure has occurred due to a Delay Event, it shall pay Damages to the Authority in a sum calculated at the rate of 0.1% (zero point one per cent) of the amount of Performance Security per bus times the number of buses allocated to the specific depot for each day of delay until the Fit Out Works are completed and the relevant Maintenance Depot is ready to be put into commercial operation. For the avoidance of doubt, it is agreed that recovery of Damages under this Clause 12.5.2 shall be without prejudice to the rights of the Authority under this Agreement, including the right of Termination thereof.

- 12.5.3 In the event that the Maintenance Depot Completion Date, for any Maintenance Depot, does not occur within 270 (two hundred and seventy) days from the relevant Scheduled Maintenance Depot Completion Date (as may be extended in accordance with the terms of this Agreement), unless the delay is on account of a Delay Event, the Authority shall be entitled to terminate this Agreement for an Operator Default and the consequences of such termination as set out in Article 33 shall apply.
- 12.5.4 Upon completion of the Fit Out Works at each Maintenance Depot, the Operator shall issue a notice to the Authority pursuant to which the Authority, or the Authority's Representative, shall, within 7 (seven) days from the date of such notice, inspect the Maintenance Depot to assess its conformity with the Specifications and Standards. If the Maintenance Depot complies with the Specifications and Standards, the Authority shall issue a completion certificate for the Maintenance Depot ("**Maintenance Depot Completion Certificate**"). If, however, pursuant to any inspection undertaken by the Authority, or the Authority's Representative, any defects or deficiencies are identified in the Maintenance Depot, the Operator shall, no later than 30 (thirty) days from the date of such notice, rectify and remedy such defects or deficiencies and shall issue a notice to the Authority pursuant to which the Authority may re-inspect the Maintenance Depot. The process set out in this Clause 12.5.4 shall continue until all defects and deficiencies in the Maintenance Depot have been rectified and the Authority has issued the Maintenance Depot Completion Certificate for such Maintenance Depot.

12.6 Extension of Time

- 12.6.1 Subject to Clause 12.6.2 below, the Operator shall be entitled to a day-for-day extension of the relevant Scheduled Maintenance Depot Completion Date and the Procurement Schedule if and only to the extent that performance of the Fit Out Works for such Maintenance Depot or the procurement of the Buses is, or will be, delayed due to a Delay Event.
- 12.6.2 The Operator shall promptly provide the Authority with:

a notice upon becoming aware of any Delay Event; and

(ii) a notice of its claim for extension the Scheduled Maintenance Depot Completion Date and Procurement Schedule, with such notice specifying the nature of the Delay Event, the extent of delay suffered or likely to be suffered by the Operator, the mitigation measures being taken or proposed to be taken by the Operator in order to minimise the impact of the Delay Event, and any other information relevant to claim such extension.

Subject to Clause 12.6.3 below, the issuance of such notice within 7 (seven) days from the date the Operator became aware of the Delay Event shall be a condition precedent to the Operator's entitlement to an extension under this Clause 12.6.



- 12.6.3 Where a Delay Event has a continuing effect or where the Operator is unable to determine whether the effect of a Delay Event will actually cause delay to the Fit Out Works or procurement of the Buses, so that it is not practical for the Operator to provide notice in accordance with Clause 12.6.2 above, a statement to that effect with reasons together with any other relevant information shall be submitted in place of the notice required pursuant to Clause 12.6.2. In such an event, the Operator shall, as soon as reasonably practical, submit to the Authority the information required pursuant to Clause 12.6.2.
- 12.6.4 Without prejudice to the Operator's obligations to notify the Authority regarding the occurrence of a Delay Event above, the Operator shall: (i) keep and maintain records to accurately substantiate and establish claims for extensions under this Clause 12.6; and (ii) give the Authority access to such records and documents or provide the Authority with copies, if so requested.
- 12.6.5 If there are two or more concurrent causes of delay and only one of those concurrent causes is a cause of delay which would entitle the Operator to an extension of time in accordance with this Clause 12.6, then the Operator shall not be entitled to an extension of time for the period of such concurrency.
- 12.6.6 The Operator shall not be entitled to any extension of time for any reason whatsoever, including due to:
 - (i) delay caused in complying with any instructions of the Authority which are directly attributable to any act or omission of the Operator;
 - (ii) failure of any Contractor to commence or carry out any work within the prescribed timelines;
 - (iii) unavailability or shortage of equipment, materials or any other resources (including any utilities); or
 - (iv) inclement weather conditions except in case of Force Majeure.
- 12.6.7 Any Dispute between the Parties with respect to the occurrence, length of subsistence or consequence of any Delay Event shall be settled in a final and binding manner in accordance with the Dispute Resolution Procedure.



PROCUREMENT OF BUSES

13.1 Standards and Specifications

The Operator shall procure Buses meeting all the Specifications and Standards provided in Schedule-B.

13.2 Ownership of Buses

The Operator agrees that it shall be solely responsible for the procurement of Buses. Subject to the terms of this Agreement, the Parties agree that during the Contract Period, risk of the buses ownership of the Buses shall remain with the Operator and the Operator shall cause all Buses to be registered in the name of the Operator, or, where title and ownership of the Buses lies with any other Person pursuant to the terms of any Project Agreement, in the name of such Person, and the Authority shall not exercise any right, title, or interest over any of the Buses, unless provided otherwise under the terms of this Agreement. The Operator shall have the right to lease the Buses required to be provided under this Agreement under the Buses are leased to the Operator or the Financier, then the Ownership and Registration of the Buses shall be in the name of the Lessor.

13.3 Procurement Schedule

The Operator shall procure the Buses as per the Procurement Schedule provided in Schedule-G hereto and shall ensure the Buses are ready for Commencement of Service in accordance with Article 14. The Operator further agrees that prior to procurement of the Buses, it shall procure a Prototype Bus for the approval of the Authority in accordance with Clause 13.4.

13.4 Prototype

- 13.4.1 The Operator shall, within 30 (thirty) days from the date of execution of this Agreement, provide to the Authority (or any nominee appointed by it for this purpose) 5 (five) copies of the Designs and Drawings of a sample Bus that conforms to the Specifications and Standards (the "**Prototype**"), as specified in Schedule-F. Provided that the Operator may, share only the details of the layout of the Prototype and not share any propriety information forming part of Designs and Drawings of the Prototype.
- 13.4.2 The Authority, or any independent third party agency appointed by the Authority for this purpose, shall depute a team of experts for undertaking a review of the Designs and Drawings to ensure compliance with the requirements of this Agreement. Based on the review, the Authority (or its nominee) shall prepare and submit a report (the "Design Report") highlighting therein, amongst other aspects, any specific non-compliances in the Designs and Drawings with the requirements of this Agreement. The Authority (or its nominee) shall submit a copy of the Design Report to the Operator within 15 (fifteen) days from the date of receiving the Designs and Drawings of the Prototype from the Operator. It is agreed that any failure or omission of the Authority , or its nominee, to review and/ or comment on the Designs and Drawings or to highlight any deficiency therein shall not be construed or deemed as acceptance of any such Designs and Drawings by the Authority, or its nominee (if any) and, notwithstanding anything to the contrary, the Operator acknowledges and agrees that it is the



sole responsibility of the Operator to ensure that the Designs and Drawings are fully in compliance with the requirements of this Agreement.

13.4.3 Pursuant to the Design Report or otherwise, the Operator shall carry out such modifications in the Designs and Drawings as may be necessary in order for the Prototype to conform to the requirements of this Agreement, including without limitation, the Specifications and Standards. The Authority expressly agrees that it (and any nominee of the Authority) shall, subject to the provisions of this Agreement and Applicable Laws, maintain the confidentiality of any Designs and Drawings provided to them by the Operator and shall endeavour to protect the Intellectual Property rights of the Operator, if any, therein.

13.5 Tests at Manufacturer's Plant

- 13.5.1 Prior to procuring the supply of the Prototype, the Operator shall carry out, or cause to be carried out on the Prototype, at its own cost and expense, all Tests in accordance with Schedule-H and such other tests that the Operator may consider necessary to demonstrate that the Prototype complies in all respects with the requirements of this Agreement, including the Specifications and Standards. The Operator shall provide to the Authority (or its nominee) forthwith, a copy of the Operator's report on each test containing the results of such test and the action, if any, that it proposes to take for compliance with the requirements of this Agreement, including the Specifications and Standards.
- 13.5.2 The Operator shall, with at least 2 (two) weeks' notice to the Authority (or the Authority's Representative), convey the date, schedule and type of tests that shall be conducted on the Prototype at the manufacturer's plant and the Authority shall have the right, but not the obligation, to nominate its representative (including any third party nominee) to witness the tests. It is clarified that all costs incurred on account of the visit of Authority's Representatives to the manufacturer's plant shall be borne by the Operator.
- 13.5.3 The Authority, or the Authority's Representative, shall prepare and submit a report forthwith on the tests witnessed by it highlighting therein, amongst other aspects, any specific noncompliances with the requirements of this Agreement. The Authority, or the Authority's Representative shall submit a copy of this report to the Operator for review. The Operator shall, prior to dispatch of the Prototype for delivery to the Authority, procure that defects and deficiencies, if any, are rectified and the Prototype conforms with the Specifications and Standards. It is agreed that any failure or omission of any nominee or representative appointed by the Authority, to witness and/or comment on any tests conducted or to highlight any deficiency therein shall not be construed or deemed as acceptance of such tests by the Authority, its nominee (if any) and, notwithstanding anything to the contrary, the Operator acknowledges and agrees that it is the sole responsibility of the Operator to ensure that the tests carried out on the Prototype are fully in compliance with the requirements of this Agreement.
- 13.5.4 In the event of failure of any Test specified in Clause 13.5.1, the Operator shall rectify the defect and conduct repeat Tests, and the procedure specified in this Clause 13.5 shall apply *mutatis mutandis* to such repeat Tests.
- 13.6 Supply of Prototype



- 13.6.1 The Operator shall, no later than 90 (ninety) days after the date of execution of this Agreement; procure and deliver a Prototype and demonstrate to the Authority (or its nominee), the tests and trials conducted in accordance with the provisions of Clause 13.5.
- 13.6.2 In the event that the Operator fails to procure the Prototype within the period specified in Clause 13.6.1, the Authority may recover from the Operator an amount equal to 0.5% (zero point five per cent) of the Performance Security as Damages for each and every week, or part thereof, by which the delivery of the Prototype is delayed; provided that such Damages shall not exceed 10% (ten per cent) of the Performance Security .

13.7 Acceptance of Prototypes

- 13.7.1 Upon procurement of the Prototype by the Operator, the Authority (or its nominee) shall, for determining that the Prototype conforms to the requirements of this Agreement, including the Specifications and Standards, inspect the Prototype. Once the Operator has successfully demonstrated to the Authority (or its nominee) that the Prototype conforms to the requirements of this Agreement, including pursuant to any tests required to be undertaken based on instructions from the Authority, the Authority (or its nominee)shall, no later than 7 (seven) days from such date, issue a notice to the Operator, certifying that the Prototype is in compliance with the requirements of this Agreement, including and Standards.
- 13.7.2 Prior to the procurement of the Prototype, the Authority may inspect the Prototype in accordance with the provisions of Clause 13.6.
- 13.7.3 The Parties expressly agree that acceptance of the Prototype by the Authority (or its nominee) shall not relieve or absolve the Operator of its obligations and liabilities under this Agreement in any manner whatsoever.

13.8 Procurement of Buses

Upon approval of the Prototype in accordance with Clause 13.7, the Operator shall procure the remaining Buses in accordance with the provisions of Schedule-G and shall comply with timelines of the Procurement Schedule specified therein. The Operator agrees that the Buses shall include the same specifications and standards as the approved Prototype provided in this Article 13.

13.9 Delay in Procurement

- 13.9.1 In the event the Operator is unable to procure any Bus as per this Article 13, for reasons not directly attributable to a Delay Event, the Operator shall pay Damages at the rate of fifty times of 0.1 % (zero point one per cent) of the Performance Security per bus for each day of delay for each Bus (whose procurement is delayed) till the date of procurement of such Bus.
- 13.9.2 If the procurement of any Bus is delayed by a period exceeding 60 (sixty) days from the scheduled date of procurement of such Bus as provided in the Procurement Schedule, for



reasons not directly attributable to a Delay Event, or if the Damages payable by the Operator for such delay in procurement of Buses exceeds 10% (ten percent) of the Performance Security, notwithstanding anything provided in this Agreement, it shall be regarded as an Operator Default.

13.9.3 The Damages payable by the Operator shall become due and payable within 7 (seven) days of receipt of notice in this regard from the Authority.

13.10 Readiness for Commencement of Service

- 13.10.1 The Operator agrees that it shall undertake such activities as required under Applicable Law, Applicable Permits and Good Industry Practice in order to ensure that each Lot of Buses procured in accordance with the Procurement Schedule are ready for Commencement of Service. Without limiting the generality of the foregoing, such activities shall include:
 - (a) joint inspection with the Authority of the Buses proposed to be introduced into service;
 - (b) obtaining the certificate of registration for each Bus proposed to be introduced into service;
 - (c) obtaining the certificate of fitness for each Bus proposed to be introduced into service;
 - (d) payment of all applicable Taxes;
 - (e) obtaining insurance for each Bus proposed to be introduced into service in accordance with Article 25; and
 - (f) any other readiness related activity to ensure roadworthiness of the Buses proposed to be introduced into service.
- 13.10.2 The Operator shall achieve readiness for Commencement of Service for each Lot of Buses procured by it in accordance with Article 14, no later than 45 (forty five) days from the date of procurement of such Lot of Buses, or any extended period as may be agreed upon by the Parties.
- 13.10.3 The Parties hereto expressly agree that if the delay in achieving readiness for Commencement of Services for any Lot of Buses procured has arisen solely and directly on account of any Delay Event, the Operator shall be entitled to such additional time as may be reasonably required by the circumstances of the case for achieving readiness for Commencement of Services.

13.11 Damage due to accident

- 13.11.1 The Operator shall be liable for any damage to the Bus on account of accidents. The Operator agrees that it shall undertake repair and rectification of such damaged Bus such that the Bus conforms to the Specifications and Standards, to the satisfaction of the Authority.
- 13.11.2 The Operator agrees that the Authority shall not be responsible for any liability arising out of any civil or criminal proceedings instituted by any third party, as a result of such accident of



the Bus and the Operator agrees that it shall keep the Authority and its officers, servants, agents, indemnified from and against any and all suits, proceedings, actions, demands and third party claims for any loss, damage, injury, death, cost and expense of whatever kind and nature arising from such accidents.

- 13.11.3 The Operator shall notify the relevant Government Instrumentalities and the Authority of any accidents verbally, within 1 (one) hour of its occurrence followed by a written notice (setting out in reasonable detail the cause of the accident and the steps taken or proposed to be taken by the Operator in connection with the same) and in the event, such accident involves any fatality, the Operator shall intimate such accident verbally within 5 (five) minutes of the occurrence of such accident, followed by a written notice (setting out in reasonable detail the cause of the accident and the steps taken or proposed to be taken by the Operator in connection with the same). Where any persons involved in the accident have suffered physical injuries, the Operator shall co-ordinate with the relevant Government Instrumentalities to ensure timely medical help and treatment. The Authority shall provide reasonable assistance and support to the Operator in such situation.
- 13.11.4 In the event of an accident of a Bus leading to its complete destruction, such that the Bus cannot be repaired and operated in normal circumstances, and is rendered inoperable, the Operator shall replace such damaged Bus with a new Bus of such make and model which meets the Specifications and Standards and as acceptable to the Authority. The Operator agrees that any Bus brought as a replacement to a damaged Bus in accordance with this Clause 13.11.4 shall be used in the Bus Service for the remaining Contract Period.



ENTRY INTO COMMERCIAL SERVICE

14.1 Inspection by the Authority

- 14.1.1 The Authority (or its nominee) may inspect each Bus or any Lot of Buses procured by the Operator, in accordance with the provisions of this Clause 14.1, prior to the Operator putting such Bus into operation.
- 14.1.2 The Operator shall notify the Authority, no later than 45 (forty-five) days prior to the date of procurement of the Buses, the date and time on which each Lot of Buses is to be procured. The Authority may, in its discretion, nominate its representative to carry out an inspection of such Buses at a scheduled date and time.
- 14.1.3 The Operator shall provide the assistance necessary for the Authority Representative to perform the inspection in accordance with the provisions of this Clause 14.1. For the avoidance of doubt, the Parties expressly agree that such inspection shall be completed within a period of 72 (seventy two) hours from the time when a Bus is made available for inspection and upon expiry thereof, the Bus shall, subject to satisfactory completion of the safety inspection under Clause 14.2, be deemed to have been approved by the Authority.
- 14.1.4 The Operator shall ensure that all Buses meet the prescribed safety standards as set out in the Specifications and Standards and Applicable Law, including but not limited to, ensuring that the Buses are fitted with CCTV cameras, digital ticketing systems, automatic vehicle locator systems, fire and smoke detection equipment, fire suppression systems and panic buttons designed to send real-time alerts to the Control Centre. In the event that, pursuant to any inspection conducted in accordance with Clause 14.1, the Authority's Representative concludes that any Bus does not conform with the safety standards set out in the Specifications and Standards and this Agreement, and is therefore not safe for entry into service, it shall convey to the Parties forthwith, a report stating in detail the reasons for its findings. The Operator shall, notwithstanding anything to the contrary contained in this Article 14, not introduce such Bus into service until all defects and deficiencies have been rectified by the Operator and the Bus has been presented to the Authority for re-inspection. Upon presentation by the Operator of any such Bus for introduction in service, the Authority's Representative shall re-inspect such Bus and upon it being satisfied that that the Bus conforms to the safety standards set out in the Specifications and Standards and this Agreement, the Operator shall be allowed to introduce such Bus into service.
- 14.1.5 The Authority Representative shall, pursuant to any inspection conducted under this Clause 14.1, also submit an inspection report for each Bus identifying any minor defects and deficiencies required to be rectified by the Operator in conformity with the Specifications and Standards (the "**Punch List**"). The Operator shall, no later than 30 (thirty) days from the date on which it receives the Punch List, rectify each item in the Punch List and notify the Authority of the same. The Authority may, in its discretion, inspect the Bus within 7 (seven) days thereof and in the event that any Punch List items remain un-rectified, the Operator shall pay to the Authority as Damages, an amount of 1% (one per cent) 0.01% (zero point zero one per cent) of the Performance Security per bus for each day of delay until all items of the Punch List for the particular bus are rectified.



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14.2 Commercial Operation Date (COD) for Respective Lot of Buses

- 14.2.1 The Operator shall within 45 (forty-five) days from the date of procurement of each respective Lot of Buses comply with the following:
 - (a) ensure activities related to readiness for Commencement of Services are completed;
 - (b) appoint duly experienced and trained drivers holding valid driving licenses in accordance with Applicable Law;
 - (c) deposit copy of the driving licenses of the appointed drivers with the Authority; and
 - (d) ensure that the Maintenance Depot Completion Certificate has been issued in accordance with Clause 12.5.4 for each Maintenance Depot;
 - (e) ensure that the Charging Infrastructure required for the charging of such Lot of Buses has been installed and is commissioned and ready to operate in accordance with the requirements of this Agreement; and
 - (f) procure and install the necessary movable assets such as plant and equipment, materials, consumables, etc. at the Maintenance Depot as required for the Operation and Maintenance of the Buses, the Maintenance Depots and the Charging Infrastructure.
- 14.2.2 Upon completing the activities enumerated in Clause 14.2.1 above for the each Lot of Buses, the Operator shall intimate in writing to the Authority of its readiness to achieve COD for such Lot of Buses, along with detailed proof of completing each such activity. The Authority shall, within 2 (two) days of receiving such written intimation, inspect the relevant documents and the Maintenance Depot, including the Charging Infrastructure, to determine compliance by the Operator with its obligations in Clause 14.2.1 above. Upon being satisfied that the Operator has duly complied with all the requirements set forth in Clause 14.2.1 above for achieving COD for such Lot of Buses, the Authority shall within a period no longer than 5 (five) days from such inspection, issue to the Operator a Completion Certificate (the "Completion Certificate") for such Lot of Buses. In the event, any deficiencies or shortcomings are observed by the Authority in relation to the fulfilment by the Operator of its obligations under Clause 14.2.1 for any particular Buses, the Authority shall exclude such Buses from the relevant Lot and shall issue a Completion Certificate with respect to the remaining Buses in the Lot. For the Buses that have been excluded from a particular Lot, the Authority shall issue a notice the Operator within 2 (two) days of such inspection highlighting the deficiencies or shortcomings. The Operator shall rectify/remove the deficiencies within such period as specified by the Authority and the Authority shall, upon being satisfied that the deficiencies identified by it have been rectified, forthwith issue the Completion Certificate for such Buses. Provided however, that if the deficiencies or shortcomings observed by the Authority are minor in nature and can be rectified in the usual course of performing Operations and Maintenance of the Buses, the Authority shall not withhold the Completion Certificate for such Lot of Buses. Provided further that the issuance of the Completion Certificate in such cases does not, in any manner, affect the Operator's obligation to rectifying any deficiencies or shortcomings identified by the Authority.
- 14.2.3 The date of issuance of the Completion Certificate for a particular Lot of Buses shall be reckoned as the "Lot Commercial Operation Date" or "Lot COD" under this Agreement. The date when the Completion Certificate is issued for all Lots of Buses required to be introduced into service by the Operator, shall be the Commercial Operation Date ("COD") under this Agreement whereupon the Project enters into commercial service, provided,



however, that the entry of any Buses into commercial service shall always be subject to compliance with the provisions of Clause 18.3. After a Lot COD, the Operator shall ensure Commencement of Service of the Buses in such Lot in accordance with the Deployment Plan.

14.3 Damages for delay

If COD does not occur prior to the 91st (ninety first) day after the Scheduled Maintenance Depot Completion Date for the last Maintenance Depot handed over by the Authority pursuant to Clause 10.2.5, as the same may be extended in accordance with the terms of this Agreement (such date, the **"Scheduled COD"**), for reasons not directly attributable to a Delay Event, the Operator shall pay Damages to the Authority calculated at the rate of 0.1% (zero point one per cent) of the amount of Performance Security per bus times the number of buses allocated to the specific depot for each day of delay until COD is achieved. Provided however, if the Operator is unable to achieve COD on account of a Delay Event, then the Operator shall be entitled to a day-for-day extension of the Scheduled COD if and only to the extent that COD is, or will be, delayed due to a Delay Event. In this context, the provisions of Clause 12.6 shall apply to any extension of the Scheduled COD that is sought by the Operator.



CHANGE OF SCOPE

15.1 Change of Scope

- 15.1.1 The Authority may, notwithstanding anything to the contrary contained in this Agreement, require the provision of upgraded technology or additional works and services in the Buses or at the Maintenance Depots, which are not included in the Scope of the Agreement (the "**Change of Scope**"). Any such Change of Scope shall be made in accordance with the provisions of this Article 15 and the costs thereof shall be expended by the Operator and reimbursed to it by the Authority in accordance with this Article 15.
- 15.1.2 If the Operator determines at any time that a Change of Scope is necessary for providing safer and improved Buses, including upgradation of any technology thereof, it shall by notice in writing require the Authority to consider such Change of Scope. The Authority shall, within 30 (thirty) days of receipt of such notice, either accept such Change of Scope with modifications, if any, and initiate proceedings in accordance with this Article 15 or inform the Operator in writing of its reasons for not accepting such Change of Scope, as the case may be.

15.2 Procedure for Change of Scope

- 15.2.1 In the event that the Authority determines that a Change of Scope is necessary, it shall issue to the Operator a notice specifying in reasonable detail the works and services contemplated thereunder (the "**Change of Scope Notice**").
- 15.2.2 Upon receipt of a Change of Scope Notice, the Operator shall, with due diligence, provide to the Authority such information as is necessary, together with preliminary Documentation in support of:
 - (a) the impact, if any, which the Change of Scope is likely to have on the time required for completing the Fit Out Works and the Procurement Schedule, if the Change of Scope is required to be carried prior to COD; and
 - (b) the options for implementing the proposed Change of Scope and the effect, if any, each such option would have on the costs and time thereof, including a detailed breakdown by work classifications specifying the material and labour costs calculated in accordance with Good Industry Practice.
- 15.2.3 Upon receipt of information set forth in Clause 15.2.2, if the Authority decides to proceed with the Change of Scope, it shall convey its preferred option to the Operator, and the Parties shall thereupon make good faith efforts to agree upon the time and costs for implementation thereof. Upon reaching an agreement, the Authority shall issue an order (the "**Change of Scope Order**") requiring the Operator to proceed with the performance thereof. In the event that the Parties are unable to agree, the Authority may, by issuing a Change of Scope Order, require the Operator to proceed with the performance thereof pending resolution of the Dispute in accordance with the Dispute Resolution Procedure.
- 15.2.4 The provisions of this Agreement, insofar as they relate to Tests, shall apply *mutatis mutandis* to any modifications in the Buses undertaken by the Operator under this Article 15.



15.3 Payment for Change of Scope

- 15.3.1 Unless otherwise mutually agreed by the Parties, within 15 (fifteen) days of issuing a Change of Scope Order, the Authority shall make a part payment to the Operator of a sum equal to 20% (twenty per cent) of the cost of Change of Scope as determined pursuant to Clause 15.2 upon the submission by the Operator of a bank guarantee for an equivalent amount, which bank guarantee shall be valid for a period of 180 (one hundred and eighty) days, substantially in the form specified in Schedule-D. To the extent that the work under the Change of Scope Order is not completed within a period of 180 days from the date of the Change of Scope Order, the Operator shall procure an extension of the validity of the bank guarantee.
- 15.3.2 The Operator shall, after commencement of work, present to the Authority bills for payment in respect of the works and services in progress or completed works and services, as the case may be, supported by such Documentation as is reasonably sufficient for the Authority to determine the accuracy thereof. Within 30 (thirty) days of receipt of such bills, the Authority shall disburse to the Operator such amounts and after making a proportionate deduction for the advance payment made hereunder. In the event of any Dispute, final adjustments thereto shall be made under and in accordance with the Dispute Resolution Procedure.
- 15.3.3 Notwithstanding anything to the contrary contained in Clause 15.3.1 and 15.3.2, all costs arising out of any Change of Scope Order, other than those agreed as a part of the Change of Scope Order, shall be borne by the Operator.

15.4 Restrictions on certain works

- 15.4.1 Notwithstanding anything to the contrary contained in this Article 15, the Authority shall not require the Operator to undertake any works or services if such works or services are likely to delay the procurement and deployment of the Buses in accordance with the requirements of this Agreement; provided that in the event that the Authority considers such works or services to be essential, it may issue a Change of Scope Order, subject to the condition that the works forming part of or affected by such Change of Scope Order shall not be taken into account for purposes of determining completion of the Maintenance Depot.
- 15.4.2 Notwithstanding anything to the contrary contained in this Article 15, the cumulative costs relating to all Change of Scope Orders for provision of works and services shall not exceed 5% (five percent) of the Total Project Cost during the Contract Period.
- 15.4.3 Notwithstanding anything to the contrary, unless the Parties agree otherwise, the Authority shall not require the Operator to undertake any Change of Scope which involves upgradation of batteries used in the Buses due to technological advancements in battery chemistry.



OPERATION OF BUSES

16.1 Operations of Buses

- 16.1.1 The Operator shall make available and Operate and Maintain the Buses in accordance with the provisions of this Agreement, including without limitation, the Deployment Plan, and shall comply with the operation and maintenance requirements as provided in Schedule-I of this Agreement.
- 16.1.2 The Operator shall be fully responsible for ensuring the safety and security of the Buses at all times, including during operations and while the Buses are at the Maintenance Depots. In the event the Operator fails to ensure the security of the Buses and there is any theft of or damage to the Bus or any component of the Bus including but not limited to any component, spare parts, hardware, software, instruments etc., the Operator shall, as soon as is reasonably practical, repair or replace, as the case may be, such Bus or Bus component, spare, parts, hardware, software, instrument(s) etc. of the same or equivalent quality and specification, after giving prior written notice to the Authority.
- 16.1.3 The Operator shall, if required by the Authority, provide and operate additional Buses during the Contract Period. The timeline within which the Operator is required to provide any additional Buses will be mutually discussed by the Parties.
- 16.1.4 Unless the Parties agree otherwise, the maximum number of additional Buses which may be requested by the Authority under Clause 16.1.3 shall be:
 - (a) for the first year from the Appointed Date, no more than [*insert number of Buses being equal to 25% (twenty-five per cent) of the total number of Buses to be supplied by the Operator throughout the Contract Period under the Agreement*], but excluding the number of additional Buses procured and supplied by the Operator; and
 - (b) for the remainder of the Contract Period, no more than [*insert number of Buses being* equal to 50% (fifty percent) of the total number of Buses to be supplied by the Operator throughout the Contract Period under the Agreement] but excluding all additional Buses procured and supplied by the Operator.

Provided that, unless the Parties agree otherwise, at no time during the Contract Period, shall the additional Buses required to be made operational under Clause 16.1.3 be more than 50% of the total number of Buses to be procured and supplied by the Operator throughout the term of this Agreement, but excluding all additional Buses procured and supplied by the Operator. Notwithstanding the foregoing, the Parties agree that provision of additional Buses shall be subject to adequate availability of space and infrastructure (in the form of parking space at the Maintenance Depot, Charging Infrastructure etc.) for parking, maintenance and cleaning and charging of Buses.

16.1.5 Any additional Buses required to be procured and made operational pursuant to Clause 16.1.3 shall be done by way of a Change of Scope and the cost of such additional Buses shall be mutually agreed and paid in accordance with the provisions of Article 15.



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- 16.1.6 Any additional Buses procured by the Operator pursuant to Clause 16.1.3 shall become a part of the fleet of Buses operated by the operator under this Agreement and the provisions of this Agreement applicable to such Buses shall apply to all additional Buses as well.
- 16.1.7 Upon successful completion of the contract period, the operator retains the ownership of the buses under the Concession agreement and the Authority shall claim no right to transfer of ownership of such buses.

16.2 Maintenance Depots

- 16.2.1 The Operator shall use the Maintenance Depots, only for the purposes of the Operations and Maintenance of the Buses and any other activity specified in this Agreement.
- 16.2.2 The Operator shall ensure that the Maintenance Depots are adequately staffed with skilled personnel, equipped with requisite equipment, plant and machinery and stocked with Consumables, so as to ensure compliance with the Operations and Maintenance standards provided in this Agreement.

16.3 Operation Manual

- 16.3.1 The Operator shall prepare an operation manual (the "**Operation Manual**") for the operation of Buses in conformity with Good Industry Practice and the provisions of this Article 16. The Operator shall provide 10 (ten) copies of a provisional operation manual (the "**Provisional Operation Manual**") to the Authority no later than the date on which the Prototype is delivered pursuant to Clause 13.6. The Authority may review the Provisional Operation Manual and convey its comments to the Operator within a period of 15 (fifteen) days from the date of receipt thereof. The Operator shall revise the Provisional Operation Manual, as may be necessary, and provide 10 (ten) copies of the Operation Manual, accompanied by an electronic copy thereof, no later than the 15 (fifteen) days from the date on which it receives any comments from the Authority. The Operation Manual shall be revised and updated once every year and the provisions of this Clause 16.3 shall apply, *mutatis mutandis*, to such revision. For the avoidance of doubt, the Authority and the Operator expressly agree that until the Operation Manual is provide hereunder, the Provisional Operation Manual shall apply.
- 16.3.2 The Operation Manual shall include:
 - (a) instructions to operating staff for operation of the Bus;
 - (b) instructions for troubleshooting the Buses, including any software incorporated in the Buses;
 - (c) dos and don'ts for operating staff;
 - (d) safety precautions to be taken by the operating staff;
 - (e) rating and layout of equipment;
 - (f) operating limits of installed systems; and
 - (g) control and safety features of the Buses.

16.4 Routes and Schedules

16.4.1 The Parties agree that the Authority shall have the exclusive right to determine routes, frequency and schedule of the Buses as part of Deployment Plan throughout the Contract Period. The Authority shall provide the routes to the Operator for operation of the Buses as specified in Schedule-J (the "**Deployment Plan**"). All Operational Routes will be such that



their origin, destination and opportunity charging location is one or more Maintenance Depots allocated to the Operator as per Schedule-A.

- 16.4.2 The Authority shall be required to consult with the Operator in case it carries out a change to any Operational Route, provided the Authority shall have no obligation to accept or be bound by any suggestions made by the Operator as part of such consultation. Notwithstanding anything to the contrary, the Authority agrees that any revised Operational Route shall only have an origin, final destination and opportunity charging location at one of the Maintenance Depots or an Opportunity Charging Station allocated to the Operator as per Schedule-A. The Operator shall only ply Buses on the Operational Routes, unless directed otherwise by the Authority. For the avoidance of doubt, it is clarified that the Authority may amend the Operational Routes by providing at least 5 (five) days prior notice to the Operator under and in accordance with the provisions of this Agreement. Provided further that if the Authority changes any Operational Routes pursuant to this Clause 16.4.2, there shall be no reduction in the Annual Assured Bus Kilometres.
- 16.4.3 Subject to the requirements set out in Clause 16.4.2 and this Clause 16.4.3, the Authority may change an Operational Route any number of times. However, the Authority shall not change any Operational Route (involving a change of the origin, destination or opportunity charging locations) more than 2 times in a Contract Year per Bus to ensure operational efficiencies.
- 16.4.4 Subject to Clause 16.4.3, the Authority may, after providing notice to the Operator, change the Operational Route(s)/ frequency/ schedule of the Buses due to any reason whatsoever including but not limited to passenger feedback, special circumstances, festivals and seasonal requirements. In case the Authority makes any such change(s), it shall notify the Operator in writing 5 (five) days prior to required implementation of such change. Provided however, that any given time during the Contract Period, all Operational Routes must have an origin, destination and opportunity charging location at one of the Maintenance Depots as per Schedule-A.
- 16.4.5 Unless directed by the Authority, the Operator shall maintain the frequency of the Buses as specified in the Deployment Plan.
- 16.4.6 The actual hours of operations for each Bus in a day shall be specified by the Authority in the Deployment Plan. The Parties agree that the hours of operation may be segregated into peak hours and off-peak hours of operation.
- 16.4.7 In the event there is a need for change in the Operational Route of a Bus, the Operator shall inform the control centre established by the Authority for monitoring of all activities ("Control Centre") and the same shall be tallied with the change in route length measured by the intelligent transport systems installed by the Operator ("Intelligent Transport Systems" or "ITS") or the odometer reading at the end point of the route and the distance so measured shall be reckoned for the purpose of making payment to the Operator.
- 16.4.8 Notwithstanding anything contained in Clause 16.4, if the Authority wishes to deploy a Bus on any route which requires the Bus to undergo opportunity charging at a location that is not a Maintenance Depot as per Schedule-A ("**Opportunity Charging Stations**"), then the Authority shall, at its cost, be responsible for procuring and providing to the Operator:
 - (a) vacant and unencumbered possession of land and right of way to such location on which the Operator will be required to install the charging infrastructure;



- (b) an electricity connection to such location (at the available HT/LT metering level); and
- (c) any and all Applicable Permits that might be required for installing and operating the charging infrastructure at such location.

Any deployment of Buses undertaken pursuant to this Clause 16.4.8, as well as payment of the cost of any additional charging infrastructure installed by the Operator, shall be undertaken by way of a Change of Scope in accordance with Article 15.

16.5 **Deployment Plan**

- 16.5.1 The Authority shall develop a Deployment Plan according to which the Operator shall operate the Buses. The Deployment Plan shall be developed based on the draft deployment plan set out in the RFP The parameters to be included in the Deployment Plan are set out in Schedule-J and shall include:
 - i. details of the Operational Routes;
 - schedules of the Buses (including description of Bus Stops); and frequency and schedule providing Bus headways, based on peak and off peak hours, (the "Deployment Plan").
- 16.5.2 A Deployment Plan shall be submitted to the Operator in accordance with the timelines set out in Clause 4.1.2. Within 15 (fifteen) days from the date of submission of the Deployment Plan by the Authority, the Operator shall review and provide comments, if any, on the draft Deployment Plan. The Parties expressly agree and acknowledge that any comments provided by the Operator on the Deployment Plan shall be solely from the perspective of ensuring compliance with the terms of this Agreement. The Authority may, in its sole discretion, incorporate any of the Operator's comments and submit a revised Deployment Plan within 15 (fifteen) days from the date on which it receives comments from the Operator. Any dispute between the Parties on the Deployment Plan shall be settled in accordance with the Dispute Resolution Procedure.
- 16.5.3 The Operator shall operate the Buses in accordance with the Deployment Plan finalised pursuant to Clause 16.5.2 and shall at all times ensure that the required routes and frequency of Buses is maintained as specified under the Deployment Plan or as per the instructions of the Authority issued from time to time.
- 16.5.4 The Operator shall ply the Buses in accordance with the Deployment Plan.
- 16.5.5 The Authority reserves the right to make changes to the Deployment Plan from time to time with prior notification, of at least 5 (five) days, of such change to the Operator. The Parties agree that changes to the Deployment Plan by the Authority shall not have an effect of exceeding 20% (twenty percent) of the Total Scheduled Bus Kilometres as mentioned in the Deployment Plan.
- 16.5.6 If, pursuant to any revisions in the Deployment Plan under Clause 16.5.5, the Operator is of the view that it will be unable to meet any of the Key Performance Indicators set out in Article 20, it shall issue a notice to the Authority setting out in detail its reasons. The Operator shall provide all necessary documentation and data in support of its claim. Upon such a notice being



issued, the Parties shall discuss in good faith with a view to agreeing on such revisions to the Deployment Plan as may be necessary while ensuring that the Operator is not unduly prevented from achieving the Key Performance Indicators. Any dispute between the Parties on any revisions to the Deployment Plan shall be settled in accordance with the Dispute Resolution Procedure.

- 16.5.7 If, based on the operations of the Buses and the data collected from the ITS, there are delays in completing Bus trips for a continuous period of 1 (one) month, and such delays are not a result of a breach by the Operator of its obligations under this Agreement, the Authority may, in its sole discretion, review and revise the Deployment Plan with a view making such changes as may be required in order to eliminate such delays.
- 16.5.8 Notwithstanding anything to the contrary contained herein, the Parties agree that any amendment to the Operational Routes or the Deployment Plan shall not reduce the Annual Assured Bus Kilometres and the Operator shall continue to be paid the Fee calculated in accordance with Article 22.

16.6 Incidents En-Route

- 16.6.1 In case of a Breakdown of a Bus during normal course of Operations, the Operator shall immediately inform the Control Centre and its maintenance team whereupon the Operator shall ensure speedy tow-away of the affected Bus within 2 (two) hours of the Breakdown. The Operator shall as soon as is reasonable practicable, provide a replacement Bus to complete the route after such breakdown, or shall transfer all (or as many as capacity permits) Users to the next Bus plying on the same Operational Route in order to minimise inconvenience to the Users, failing which it will be deemed as an Operator Default and the Operator shall be liable to pay Damages at the rate of 1% (one per cent) 0.01% (zero point zero one percent) of the Performance Security per bus for each such incident.
- 16.6.2 The Operator shall ensure regular communication with Buses throughout the Operation Period by making use of relevant technology as specified in this Agreement, more specifically provided in Clause 19.7.
- 16.6.3 In an unforeseen event involving unruly behaviour by passengers or vandalism in or involving the Bus, the Operator shall forthwith intimate the Authority. If the Bus in question is not in a condition to complete the Operational Route or go back to the Bus Depot, then the Operator shall arrange to tow-away such Bus within 1 (one) to 3 (three) hours of such occurrence, failing which Operator shall be liable to pay Damages at the rate of 1% (one
- 16.6.4 per cent) 0.01% (zero point zero one percent) of the Performance Security per bus for each such incident. The Operator shall as soon as is reasonable practicable, provide a replacement Bus to complete the route after such incident or shall transfer all (or as many as capacity permits) Users to the next Bus plying on the same Operational Route in order to minimise inconvenience to the Users.
- 16.6.5 The Operator shall make provisions for the adequate availability of first aid kits on the Buses or at the Maintenance Depots for assisting any persons or Users in need of first aid on-site and shall also co-ordinate with the relevant Government Instrumentalities including but not limited to the police to ensure timely medical help to any injured Users.



16.6.6 The Operator shall extend all cooperation requested by the Authority including but not limited to filing complaints to the police and or any other investigation undertaken in relation to any incidents on the Buses.

16.7 Advertising on Buses and Maintenance Depots

- 16.7.1 Subject to Applicable Law, the Authority may display advertisements on the Buses and at the Maintenance Depot. Other than to the extent set out in this Agreement, the Operator shall have no right to display any advertisement on the Buses or the Maintenance Depots.
- 16.7.2 The Authority shall ensure that the display of any advertisements on the Buses and Maintenance Depot does not interfere in any way with the performance by the Operator of its obligations under this Agreement.
- 16.7.3 The Authority shall at all times ensure that no part of the Buses including but not limited to the external and internal colour, body of the Buses or any part of the Maintenance Depots are damaged due to the placement of any advertisements or any other form of display material. The Authority shall ensure that the advertisements are displayed in such a manner that it does not obstruct partially or completely, the visibility from inside and outside of the Buses. If any damage is caused to the Buses or the Maintenance Depots directly as a result of the placement of any advertisements by the Authority, the Authority shall be liable to reimburse the Operator all costs incurred by the Operator in rectifying such damage.
- 16.7.4 Placement of Advertisement
 - (a) The Authority may place the advertisement inside and outside the Buses at designated slots described, such that it does not obstruct any safety, advisory or other mandatory information.
 - (b) The Authority may place the advertisement on the boundary wall of the Maintenance Depots or any other slot identified by the Authority.
- 16.7.5 The Authority shall be entitled to appropriate the entire revenue generated from the display of advertisements on the Buses and at the Maintenance Depots.

16.8 User Fare

- 16.8.1 On and from the Lot COD of the first Lot of Buses till the Transfer Date, the Authority or a third party nominated by the Authority ("**Authority Nominated Personnel**") shall have the right to demand, collect and appropriate User Fare from the Users in accordance with this Agreement.
- 16.8.2 The Authority or Authority Nominated Personnel shall, in accordance with Clause 16.8.1 above, provide conductors for collection of the User Fare, every day prior to commencement of operations for the day, at the Maintenance Depot and on the time decided by the Authority. In the event the conductor does not report on time (with a relaxation of up to 5 minutes) or remains absent, the Operator shall promptly inform the Authority's Representative, who shall provide a replacement promptly.
- 16.8.3 The Operator acknowledges and agrees that upon payment of User Fare to the Authority or the Authority Nominated Personnel, any User shall be entitled to use the Buses and the Operator



shall not place, or cause to be placed, any restriction on such use, except to the extent specified in any Applicable Law, Applicable Permits or the provisions of this Agreement. It is clarified that the Authority or Authority Nominated Personnel shall collect User Fare from passengers prior to boarding the Bus and the Operator shall have the right to refuse entry to passengers refusing payment of the User Fare.

16.8.4 The Operator and its employees shall always extend courtesy while interacting with public.



MAINTENANCE OF BUSES

17.1 Maintenance Obligations

- 17.1.1 The Operator shall maintain all Buses in accordance with the provisions of this Article 17, the Specifications and Standards, the Maintenance Manual and the Maintenance Requirements (the "Maintenance Obligations").
- 17.1.2 The Parties agree that for discharging the Maintenance Obligations hereunder, the Operator shall provide its staff, movable equipment, Spares and Consumables, workshop, office space etc. The Parties further agree that the workshop space to be provided hereunder by the Operator for discharging the Maintenance Obligations of the Operator shall be no less than 100 m (hundred metres) long and 20 m (twenty metres) wide, within the Maintenance Depot.

17.2 Maintenance Manual

- 17.2.1 The Operator shall prepare a repair and maintenance manual (the "**Maintenance Manual**") for the maintenance of Buses in conformity with Good Industry Practice and the provisions of this Article 17. The Operator shall provide 10 (ten) copies of a provisional maintenance manual (the "**Provisional Maintenance Manual**") to the Authority no later than 90 (ninety) days from the Appointed Date. The Authority may review the Provisional Maintenance Manual and convey its comments to the Operator within a period of 15 (fifteen) days from the date of receipt thereof. The Operator shall revise the Provisional Maintenance Manual, as may be necessary, and provide to the Authority 50 (fifty) copies of the Maintenance Manual, accompanied by an electronic copy thereof, no later than 30 (thirty) days from the date on which it receives comments from the Authority. The Maintenance Manual shall be revised and updated once every year and the provisions of this Clause 17.2 shall apply, *mutatis mutandis*, to such revision. For the avoidance of doubt, the Parties expressly agree that until the Maintenance Manual is provided hereunder, the Provisional Maintenance Manual shall apply.
- 17.2.2 The Maintenance Manual shall include details of the periodic intervals at which the Operator will perform its Maintenance Obligations on each Bus ("**Scheduled Maintenance**"). The Operator shall ordinarily undertake Scheduled Maintenance at the Maintenance Depots and shall ensure that the Maintenance Depots are fully equipped with all equipment, tools, tackles, Consumables and Spares required to undertake the Scheduled Maintenance of the Buses.
- 17.2.3 The Operator shall, at least 15 (fifteen) days prior to the date of any Scheduled Maintenance issue a notice to the Authority identifying the Buses that will undergo such Scheduled Maintenance. Such notice shall also specify the estimated time required for such Scheduled Maintenance and the estimated date on which such Buses will be made available for operations.
- 17.2.4 Any maintenance or repair of a Bus, not being Scheduled Maintenance, and arising out of any reason including Breakdown, unsatisfactory performance, defects, deficiencies, accident, vandalism, natural calamity, fire, riots, arson or negligence, shall be undertaken by the Operator as unscheduled maintenance (the "**Unscheduled Maintenance**"). The Parties expressly agree that any and all Unscheduled Maintenance shall be undertaken promptly to procure efficient, safe and reliable operation of the relevant Bus. Any and all Unscheduled Maintenance shall form part of the Maintenance Obligations and shall be undertaken by the Operator at its own cost and expense. Provided that, if any Unscheduled Maintenance is required to be undertaken



as a direct result of a breach by the Authority of its obligations under this Agreement, then any reasonable documented costs and expenses for such Unscheduled Maintenance shall be reimbursable by the Authority to the Operator.

17.2.5 The Operator shall, within 3 (three) days of the arrival of a Bus at a Maintenance Depot for Unscheduled Maintenance arising out of the reasons specified in Clause 17.2.4, furnish to the Authority in reasonable detail the particulars of defects, deficiencies or damages and the estimated cost of repair thereof. Upon completion of repairs hereunder, the Operator shall furnish to the Authority the actual cost of repairs, if such costs are to be borne by the Authority pursuant to Clause 17.2.4 above.

17.3 Spares and Consumables

- 17.3.1 During the Contract Period, the Operator shall, at its own cost and expense, replace and install materials which get consumed or wear out beyond serviceable limits in the normal course of operation of a Bus, including oils, lubricants, brake blocks and pads, rubber parts and hoses, fuses, light fittings, bulbs, seats, curtains, filters, look out glass, bearings and insulators (the "**Consumables**"). Save and except as provided in this Agreement, the Consumables shall be replaced or installed, as the case may be, by the Operator when a Bus is brought to a Maintenance Depot in accordance with the provisions of this Agreement.
- 17.3.2 During the Maintenance Period, the Operator shall, at its own cost and expense, replace any part or equipment of a Bus, which may be defective, damaged or worn out, by a substitute thereof (the "**Spares**") for the efficient Operation and Maintenance of a Bus.
- 17.3.3 The Parties expressly agree that the Operator shall, supply and install doors, window panes, seats, gear case, axle-boxes, brake gear components, wind shield, and under-gear piping/cabling at its own cost and expense; provided, however, that if such supply and installation have arisen on account of negligence of Authority staff, accidents, vandalism, arson, riots or natural calamities, the Authority shall be liable for the costs and expenses incurred by the Operator as a result.
- 17.3.4 The Operator shall, at its cost, maintain a sufficient inventory of Consumables and Spares for timely repair and maintenance of Buses in conformity with its Maintenance Obligations and shall ensure that upon Termination, it hands over such Spares and Consumables to the Authority with adequate inventory as may be required for a period of 6 (six) months of operations of the Buses based on Good Industry Practice.

17.4 Maintenance Requirements

The Operator shall procure that at all times during the Contract Period, each and every Bus conforms to the maintenance requirements set forth in Schedule-I (the "**Operation and Maintenance Requirements**").

17.5 Damages for breach of Maintenance Obligations

17.5.1 In the event that the Operator fails to repair or rectify any defect or deficiency in a Bus, as set forth in the Maintenance Requirements and within the period specified therein, it shall be



deemed to be in breach of this Agreement and the Authority shall be entitled to recover Damages, to be calculated and paid for each day of delay until the breach is cured, at the rate of 5% (five per cent) 0.01% (zero point zero one percent) of the Performance Security per bus. Recovery of such Damages shall be without prejudice to the rights of the Authority under this Agreement, including the right of Termination thereof.

17.5.2 The Damages set forth in Clause 17.5.1 may be assessed and specified forthwith by the Authority; provided that the Authority may, in its discretion, demand a smaller sum as Damages, if in its opinion, the breach has been cured promptly and the Operator is otherwise in compliance with its Maintenance Obligations. The Operator shall pay such Damages forthwith and, in the event, that it contests such Damages, the Dispute Resolution Procedure shall apply.

17.6 Demobilisation due to Emergency

- 17.6.1 If in the reasonable opinion of the Authority, there exists an Emergency which warrants the demobilisation of a Bus, the Authority shall be entitled to demobilise the Bus for so long as such Emergency and the consequences thereof warrant; provided that such demobilisation and particulars thereof shall be notified by the Authority to the Operator without any delay, and the Operator shall diligently carry out and abide by any reasonable directions that the Authority may give for dealing with such Emergency.
- 17.6.2 The Operator shall re-mobilise the Bus as quickly as practicable after the circumstances leading to its demobilisation have ceased to exist or have so abated as to enable the Operator to re-mobilise the Bus and shall notify the Authority of the same without any delay. For the avoidance of doubt, the demobilisation of any Bus pursuant to this Clause 17.6 shall not affect the Annual Assured Bus Kilometres and the Authority shall continue to pay the Fee to the Operator in accordance with Article 22.

17.7 Authority's right to take remedial measures

In the event the Operator does not maintain and/or repair the Bus in conformity with the provisions of this Agreement and the Maintenance Manual, and fails to commence remedial works within 15 (fifteen) days of receipt of a notice in this regard from the Authority, the Authority shall, without prejudice to its rights under this Agreement including Termination thereof, be entitled to undertake such remedial measures at the risk and cost of the Operator, and to recover its cost from the Operator. In addition to recovery of the aforesaid cost, a sum equal to 20% (twenty per cent) of such cost shall be paid by the Operator to the Authority as Damages. The Parties agree that the Authority shall not in any manner be liable for any damage to, or deterioration in, a Bus occurring on account of the remedial measures taken hereunder.

17.8 Overriding powers of the Authority

17.8.1 If in the reasonable opinion of the Authority, the Operator is in material breach of its obligations under this Agreement and, in particular, the Maintenance Obligations, and such breach is causing or is likely to cause material hardship to the Users or render the use of a Bus unsafe for operation, the Authority may, without prejudice to any of its rights under this



Agreement including Termination thereof, by notice, require the Operator to take reasonable measures immediately for rectifying or removing such hardship or unsafe condition, as the case may be.

- 17.8.2 In the event that the Operator, upon notice under the provisions of this Clause 17.8, fails to rectify or remove any hardship or unsafe condition affecting the operation of any Bus, within 15 (fifteen) days from the date of the notice, the Authority may exercise overriding powers under this Clause 17.8 and take over the performance of any or all the obligations of the Operator to the extent deemed necessary by it for rectifying or removing such hardship or unsafe situation; provided that the exercise of such overriding powers by the Authority shall be of no greater scope and of no longer duration than is reasonably required hereunder; provided further that for any costs and expenses incurred by the Authority in discharge of such obligations, the Authority shall be entitled to recover them from the Operator in accordance with the provisions of Clause 17.7 along with the Damages specified therein.
- 17.8.3 In the event of a national emergency, adverse weather conditions, civil commotion or any such other event, the Authority may take over the performance of any or all the rights or obligations of the Operator to the extent deemed necessary by it, and exercise such control over the Buses and Maintenance Depots or give such directions to the Operator as may be deemed necessary; provided that the exercise of such overriding powers by the Authority shall be of no greater scope and of no longer duration than is reasonably required in the circumstances which caused the exercise of such overriding power by the Authority. It is agreed that the Operator shall comply with such instructions as the Authority may issue in pursuance of the provisions of this Clause 17.8, and shall provide assistance and cooperation to the Authority, on a best effort basis, for performance of its obligations hereunder.
- 17.8.4 The Parties agree that if the Authority takes over the performance of any or all the rights or obligations of the Operator pursuant to Clauses 17.8.1, 17.8.2 or 17.8.3, then:
 - (a) the period during which the Authority has taken over the operation of the Buses shall be excluded for determining compliance with the Key Performance Indicators in accordance with Article 20;
 - (b) the Authority shall continue to pay the Operator for the Annual Assured Bus Kilometres in accordance with Clause 22.4 for the period during which the Authority has taken over the operation of the Buses; and
 - (c) the Authority shall be liable for any damage caused to the Buses during the period in which it has taken over the operations of the Buses.

17.9 Restoration of loss or damage to the Buses

Save and except as otherwise expressly provided in this Agreement, in the event that a Bus or any part thereof suffers any loss or damage during the Contract Period from any cause whatsoever, the Operator shall, at its cost and expense, rectify and remedy such loss or damage forthwith so that the Bus conforms to the provisions of this Agreement.

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17.10 Modifications to the Buses

The Operator shall not carry out any material modifications to a Bus save and except where such modifications are necessary for the Bus to operate in conformity with the Specifications and Standards, Maintenance Obligations, Good Industry Practice and Applicable Laws; provided that the Operator shall notify the Authority of the proposed modifications along with particulars thereof at least 15 (fifteen) days before commencing work on such modifications and shall reasonably consider any suggestions that the Authority may make within 15 (fifteen) days of receiving the Operator's proposal. For the avoidance of doubt, all modifications made hereunder shall comply with the Specifications and Standards, Applicable Laws, Good Industry Practice and the provisions of this Agreement.

17.11 Operation Assistance

- 17.11.1 The Operator shall operate the Buses in accordance with the Operation Manual, Applicable Laws, Good Industry Practice and the provisions of this Agreement.
- 17.11.2 The Operator shall ensure that its staff are familiar and well versed with the Operation Manual.
- 17.11.3 The Operator shall bear the cost of electricity, including over and above the Allowed Power Consumption, in accordance with Schedule-S.

17.12 Excuse from performance of obligations

The Operator shall not be considered in breach of its obligations under this Agreement in connection with the Operations and Maintenance of the Buses and Maintenance Depots if it is unable to perform its obligations on account of any of the following:

- (a) an event of Force Majeure;
- (b) measures taken to ensure the safe operation of Buses, except when unsafe conditions occurred because of failure of the Operator to perform its obligations under this Agreement; or
- (c) a breach by the Authority of its obligations under this Agreement and which directly affects the Operator's ability to comply with any of its obligations;
- (d) delay by the Authority in handing over the Maintenance Depots by the Scheduled Maintenance Depot Handover Dates in accordance with the terms of this Agreement;
- (e) any road accidents which prevent the Operator from complying with the requirements of this Agreement, including the Key Performance Indicators, provided that the Operator has complied with the notice requirements set out in Clause 13.11.4 and that such accidents were not caused due to reasons attributable to the Operator;
- (f) grid failures, power outages or inadequate power supply to the extent it affects the Operator's ability to adequately charge the Buses in accordance with the requirements prescribed in the Operations Manual;



- (g) blockade on any Operational Route caused by any Government Instrumentality or other reasons not attributable to the Operator;
- (h) compliance with a request from the Authority or the directions of any Government Instrumentality.

Provided that, any such inability to comply with its obligations shall be notified by the Operator to the Authority without any delay. Notwithstanding the foregoing, the Operator shall keep every unaffected Bus available for operations. Further, the Operator shall, in the event that it is prevented from performing any time-bound obligation in connection with the Operations and Maintenance of the Buses and Maintenance Depots on account of any of the events set out in this Clause 17.12, receive an extension of time for the performance of such obligation with the period of such extension being equal to the period during which any of the events set out in this Clause 17.12 subsist.

17.13 Warranties for defects and deficiencies

17.13.1 The Operator warrants that:

- (a) all equipment, supplies, plant and machinery at the Maintenance Depots as well as components, parts and systems forming part of a complete Bus including the Spares and Consumables shall be new and of utility-grade quality and in full conformity with the Specifications and Standards, Designs and Drawings, Applicable Permits, Applicable Laws and the other requirements of the Agreement, of suitable quality and fit for the purpose for which they are intended and be free from defects, deficiencies and defective workmanship;
- (b) all Buses shall be free from defects, shall comply with all Applicable Laws and Good Industry Practice and will be capable of operating in the manner intended and contemplated in the Specifications and Standards, Designs and Drawings, Applicable Permits, Applicable Laws and the Agreement;
- (c) the manufacturing, assembly and supply of the Buses shall be performed in accordance with the standards of professional care, skill, diligence and competence generally accepted in the international independent manufacturing industry applicable to engineering and manufacturing and project management practices for manufacturing projects of similar size and type as the Project, when operated in accordance with Good Industry Practice; and
- (d) the Buses shall be capable of performing and would continue to perform as per this Agreement.

17.14 Maintenance Depots

17.14.1 For discharging its Maintenance Obligations under and in accordance with the provisions of this Agreement, the Operator shall also operate and maintain the Maintenance Depots in accordance with the Specifications and Standards, Good Industry Practices and the provisions of this Agreement.



17.14.2 Subject to adequate space being made available at the Maintenance Depots by the Authority, the Maintenance Depots shall have provisions for the repair and maintenance of at least 50 (fifty) Buses at a time as well as parking facility for the entire fleet of Buses deployed at such depot.



SAFETY REQUIREMENTS

18.1 Safety Requirements

The Operator shall develop, implement and administer a safety programme for providing a safe environment on or about the Buses and Maintenance Depots, and shall comply with the safety requirements set forth in this Article 18 and Schedule-K (the "**Safety Requirements**").

18.2 Guiding principles

- 18.2.1 Safety Requirements aim at minimising threat of injuries, loss of human life and damage to property resulting from accidents on account of the Buses or in the Maintenance Depots, irrespective of the person(s) at fault.
- 18.2.2 Safety Requirements shall apply to all phases of construction, operation and maintenance of the Project with emphasis on identification of factors associated with accidents, consideration of the same and implementation of appropriate remedial measures.

18.3 Obligations of the Operator

- 18.3.1 The Operator shall abide by the following to ensure safety of the Buses and Maintenance Depots, human life and property:
 - (a) instructions issued by the Authority;
 - (b) Applicable Laws and Applicable Permits;
 - (c) provisions of this Agreement;
 - (d) relevant standards/guidelines contained in internationally accepted codes; and
 - (e) Good Industry Practice.
- 18.3.2 The Operator shall impart safety training to its employees and shall at all times be responsible for observance of safety procedures by its staff, Contractors and agents.
- 18.3.3 The Operator shall be responsible for undertaking all the measures under its control to ensure safe operation of Buses and the safety and security of the Maintenance Depots.
- 18.3.4 The Operator agrees that the Authority shall be entitled to inspect any Bus or Maintenance Depot to verify adherence to Safety Requirements and the Operator shall be obliged to facilitate such inspection and implement the corrective measures identified in such inspection.

18.4 Safety measures during Fit Out Works



The Operator shall, while undertaking the Fit Out Works at the Maintenance Depots, provide an environment for procuring the safety of human life and property in accordance with Applicable Laws and Good Industry Practice.

18.5 Annual Safety Report

- 18.5.1 The Operator shall submit to the Authority before the 31st (thirty first) May of each Accounting Year, an annual report in 10 (ten) copies containing, without limitation, a detailed listing and analysis of all accidents occurring on account of the operation of the Buses or in the Maintenance Depots during the preceding Accounting Year and the measures taken by the Operator for averting or minimizing such accidents in the future ("Annual Safety Report").
- 18.5.2 Once in every Accounting Year, a safety audit shall be carried out by the Authority. It shall review and analyse the Annual Safety Report and accident data of the preceding Accounting Year and undertake an inspection of the Buses and Maintenance Depots. The Authority shall provide a safety report recommending specific improvements, if any, required to be made in the Buses and Maintenance Depots. Such recommendations shall be implemented by the Operator in accordance with Safety Requirements, Specifications and Standards and Applicable Laws.



MONITORING OF OPERATION AND MAINTENANCE

19.1 Monthly Status Reports

- 19.1.1 During the Contract Period, the Operator shall, no later than 7 (seven) days after the end of each month, furnish to the Authority a monthly report stating in reasonable detail the maintenance services performed by the Operator on the Buses and the defects and deficiencies that require rectification. The report shall also include Key Performance Indicators achieved by the Buses, the compliance or otherwise with the Maintenance Requirements, Maintenance Manual and Operation Manual, details of any breakdowns, claims, challans etc. The Operator shall promptly give such other relevant information as may be required by the Authority.
- 19.1.2 The monthly report specified in Clause 19.1.1 shall also include a summary of the key operational hurdles and deliverables expected in the succeeding month along with strategies for addressing the same and for otherwise improving the Operator's operational performance.

19.2 Accident Reporting

The Operator shall, prior to the close of each day, send to the Authority, by facsimile or email, a report containing details of any failures, accidents and other unusual occurrences relating to the Buses. A weekly and monthly summary of such reports shall also be sent within 3 (three) days of the closing of each week and month, as the case may be. For the purposes of this Clause 19.2, unusual occurrences on a Bus shall include any other troubles or events involving a Bus during operations.

19.3 Inspection

The Authority shall be entitled to inspect the Buses and Maintenance Depots after any maintenance activities have been carried out by the Operator for evaluating the compliance of the Buses and Maintenance Depot with the Maintenance Obligations. Pursuant to any such inspections, the Authority shall prepare a report of such inspection (the "Maintenance Inspection Report") stating in reasonable detail the defects or deficiencies, if any, with particular reference to the Maintenance Obligations and shall notify the Operator of the same for taking remedial measures in accordance with the provisions of Clause 19.5.

19.4 Tests

For determining that the Buses are being maintained in conformity with the Maintenance Obligations, the Authority may require the Operator to carry out, or cause to be carried out, the tests specified by it in accordance with Good Industry Practice. The Operator shall, with due diligence, carry out or cause to be carried out all such tests in accordance with the instructions of the Authority and furnish the results of such tests to the Authority within 15 (fifteen) days of such tests being conducted. One half of the costs incurred on such tests shall be reimbursed by the Authority to the Operator. Provided, however, that the Authority shall not bear any costs hereunder for and in respect of tests which have failed. Provided that, the date and time of such



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tests shall be mutually discussed and agreed by the Parties keeping in mind the operation hours of any such Bus as per the Deployment Plan.

19.5 Remedial measures

- 19.5.1 The Operator shall repair or rectify the defects or deficiencies, if any, set forth in the Maintenance Inspection Report or in the test results referred to in Clause 19.4 and furnish a report in respect thereof to the Authority within 15 (fifteen) days of receiving the Maintenance Inspection Report or the test results, as the case may be.
- 19.5.2 The Authority shall require the Operator to carry out or cause to be carried out tests, at the cost of the Operator, to determine whether the remedial measures have brought the Buses into compliance with the Maintenance Obligations and Safety Requirements, and the procedure set forth in this Clause 19.5 shall be repeated until the maintenance of Buses conforms to the Maintenance Obligations and Safety Requirements. In the event that remedial measures are not completed by the Operator in conformity with the provisions of this Agreement, the Authority shall be entitled to recover Damages from the Operator at the rate of 0.5% (zero point five per cent) 0.01% (zero point zero one per cent) of the Performance Security per bus times the number of buses allocated to the specific depot.

19.6 Responsibility of the Operator

- 19.6.1 It is expressly agreed between the Authority and the Operator that any inspection carried out by the Authority or the submission of any Maintenance Inspection Report by the Authority as per the provisions of this Article 19 shall not relieve or absolve the Operator of its obligations and liabilities hereunder in any manner whatsoever.
- 19.6.2 It is further agreed that the Operator shall be solely responsible for adherence to the Key Performance Indicators specified in Article 20.

19.7 Real Time Data Access

The Operator shall install and provide a real time data monitoring system in accordance with the Standards and Specifications ("**Data Monitoring System**") complete with onboard devices on Buses which enable the Authority to monitor the real-time location and status of the Buses. The Operator shall provide the Authority access to the raw feed of the Data Monitoring System. The Operator shall install the Data Monitoring System as per the requirements in Schedule -P. The Operator shall ensure that the Data Monitoring System is designed to interface with any existing monitoring systems put in place by the Authority as well as the centralised monitoring system implemented by the Program Manager. The Operator agrees that a failure to comply with its obligations under this Clause 19.7 shall be deemed to be an Operator Default.



KEY PERFORMANCE INDICATORS

20.1 Key Performance Indicators

Without prejudice to the obligations specified in this Agreement, the Operator shall operate and maintain every Bus such that it achieves the performance indicators comprising Reliability, Operational Availability, Start Punctuality, Arrival Punctuality, Trip Speed, Frequency Safety and Infractions as specified in this Article 20, (the "**Key Performance Indicators**").

20.2 Reliability

- 20.2.1 The Parties agree that the average reliability of all Buses in the fleet shall be measured on a quarterly basis in terms of the number of Breakdowns per 10,000 (ten thousand) kilometres travelled by the Buses (the "**Reliability**").
- 20.2.2 Reliability shall be equal to the quotient of the aggregate number of Breakdowns of all Buses multiplied by 10,000 (ten thousand) and divided by the cumulative distance travelled by all Buses in that quarter.
- 20.2.3 The Operator agrees that the Reliability for the Buses, determined in accordance with Clause 20.2.2, shall be equal to or less than 1 (one) ("Assured Reliability").
- 20.2.4 The Operator agrees that for every increase in the Reliability by 1 (one) as compared to the Assured Reliability, it shall pay Damages to the Authority at the rate of 1% of the Performance Security.
- 20.2.5 The Authority agrees that if the Assured Reliability is less than 0.85 (zero decimal eight five), then for every 0.1 decrease in the Reliability below a factor of 0.85, the Authority shall pay to the Operator an incentive equal to 0.05% of the Monthly Fees.

20.3 Operational Availability

- 20.3.1 After COD, a Bus shall be deemed to be available for operation at all times, save and except for the instances set out in Clause 20.3.2 below.
- 20.3.2 The Parties agree that the period for which a Bus is deemed to be not available for operation shall be as follows:
 - (a) during the period of any Scheduled Maintenance of such Bus which shall be determined as the period between entry of such Bus at the Maintenance Depot and the time when it is declared by the Operator as available for operation;
 - (b) in the case of any Unscheduled Maintenance arising out of reasons directly attributable to the Operator, the period between the time of occurrence of an event that renders the Bus unfit or unavailable for service, including breakdowns, and the time when it is declared by the Operator as available for operation;



- (c) in the case of any faults or malfunctioning of the Charging Infrastructure, thereby preventing the charging of the Buses, the period between the entry of such Bus at the Maintenance Depot for charging and the time when it is declared by the Operator as available for operation, provided that any planned downtime (i.e., the period between the scheduled end of the Operational Route of such Bus in any particular day and the scheduled start of the Operational Route of such Bus the following day) shall not be considered for determining unavailability; and
- (d) any other period during which the Operator has not made any of the Buses available for operation, unless such unavailability is on account of reasons not directly attributable to the Operator.
- 20.3.2 The availability of the Buses shall be calculated on a daily basis by dividing the number of Buses available for operation (as per Clause 20.3.1 and 20.3.2 above) by the total number of Buses contracted by the Authority under this Agreement multiplied by 100 (one hundred" ("Availability").
- 20.3.3 The Operator shall at all times procure that the Availability of the Buses during each quarter of the Contract Period is equal to or greater than 95" ("**Guaranteed Availability**").
- 20.3.4 Notwithstanding anything to the contrary contained in this Agreement, upon the occurrence of any of the events mentioned in Clause 17.12, the Buses affected by such events will be deemed to be Available for the duration of the event.
- 20.3.5 The Operator agrees that for every 1% reduction in the Availability as compared to the Guaranteed Availability, it shall pay Damages to the Authority at the rate of 5% of the Monthly Fees. The Damages payable by the Operator for a failure to meet the Guaranteed Availability shall be calculated at the end of each quarter.
- 20.3.6 The Authority agrees that if, in any quarter, the Availability is more than the Guaranteed Availability, then for every 1% increase in the Availability over and above the Guaranteed Availability, the Authority shall pay to the Operator an incentive equal to 0.05% of the Monthly Fees.

20.4 Punctuality

- 20.4.1 The starting time punctuality of the Buses shall be measured on a quarterly basis in terms of the percentage of on-time start of trips (in accordance with the Deployment Plan) to the total number of trips operated on a daily basis in the relevant quarter ("**Start Punctuality**"). The total number of trips where a Bus started late (or did not start) during the quarter compared to the start time as set out in the Deployment Plan will be recorded and subtracted from the total number of trips operated in such quarter to arrive at the number of trips operated that started on-time as per the Deployment Plan.
- 20.4.2 The Operator agrees that the arrival punctuality of the Buses at the end destination of the relevant Operational Route shall be measured on a quarterly basis in terms of the percentage of trips with on-time arrival at the final destination (in accordance with the Deployment Plan) to the total number of trips operated on a daily basis in such quarter ("Arrival Punctuality"). The total number of trips where a Bus arrives late at the final destination during the quarter



will be recorded and subtracted from the number of trips operated in such quarter to arrive at the on-time arrival trips.

- 20.4.3 With respect to the Start Punctuality, the Parties agree that the Operator may exercise a relaxation up to 5 (five) minutes for the start time of the Bus schedule as set out in the Deployment Plan. With respect to the Arrival Punctuality, the Parties agree that the Operator may exercise a relaxation up to 10% (ten percent) of the total scheduled trip time as set out in the Deployment Plan (subject to a maximum of 15 (fifteen) minutes).
- 20.4.4 Subject to the provisions of Clause 20.4.3, the Operator agrees that the Start Punctuality determined in accordance with Clause 20.4.2 shall be equal to or more than 90% (ninety percent) in any quarter ("Guaranteed Start Punctuality") and the Arrival Punctuality shall be equal to or more than 80% (eighty percent) in any quarter ("Guaranteed Arrival Punctuality") respectively.
- 20.4.5 The Operator agrees that for every 1% reduction in the Start Punctuality or the Arrival Punctuality in any quarter, as the case may be, as compared to the Guaranteed Start Punctuality or the Guaranteed Arrival Punctuality, in each case, for that quarter, it shall pay Damages to the Authority at the rate of 1% of the Performance Security. The Damages payable by the Operator for a failure to achieve the Guaranteed Start Punctuality or the Guaranteed Arrival Punctuality shall be calculated at the end of each quarter. Provided however, if, based on a verification of the Start Punctuality or the Arrival Punctuality in any quarter, the Authority determines that the Operator has failed to achieve the Guaranteed Arrival Punctuality directly as a result of a failure to achieve the Guaranteed Start Punctuality, then in order to avoid any double counting of the Damages payable by the Operator, the Authority shall only levy Damages for a failure to achieve one of such Key Performance Indicators.
- 20.4.6 The Authority agrees that if, in any quarter, the Start Punctuality or the Arrival Punctuality is more than the Guaranteed Start Punctuality or the Guaranteed Arrival Punctuality for that quarter respectively, then for every 1% increase in the Start Punctuality or the Arrival Punctuality over and above the Guaranteed Start Punctuality or the Guaranteed Arrival Punctuality, as the case may be, for that quarter, the Authority shall pay to the Operator an incentive equal to 0.05% of the Monthly Fees. The incentive (if any) payable by the Authority to the Operator in accordance with this Clause 20.4.6 shall be calculated at the end of each quarter.

20.5 Frequency

- 20.5.1 The frequency of operation of all available Buses (as determined in accordance with Clause 20.3 above) shall be measured on a quarterly basis in terms of
 - (a) a percentage of the cumulative completed trips travelled by all Buses to the aggregate number of scheduled trips for the same time period ("**Trip Frequency**"); and
 - (b) a percentage of the cumulative Bus Kilometres travelled by all Buses to the aggregate scheduled Bus Kilometres for the same time period ("**Bus Kms Frequency**").
- 20.5.2 The Operator agrees that the guaranteed Trip Frequency ("**Guaranteed Trip Frequency**") and the guaranteed Bus Kms Frequency ("**Guaranteed Bus Kms Frequency**"), as the case may



be, determined in accordance with Clause 20.5.1 shall be equal to or more than 94% (ninety four percent).

- 20.5.3 Unless otherwise set out in the Deployment Plan, the Buses shall be operated by the operator continuously such that the first Bus in each direction shall depart no later than 0500 hours and the last Bus shall terminate not earlier than 2330 hours at the frequency specified in the Deployment Plan and this Agreement; provided that on Sundays the duration of services may be reduced by the Authority by up to 4 (four) hours as specified in the Deployment Plan.
- 20.5.4 The Buses in each direction shall be operated by the Operator such that the difference between arrival time of 2 (two) consecutive Buses at any Bus Stop shall not exceed 10 (ten) minutes during off-peak hours and 15 (fifteen) minutes during peak-hours.
- 20.5.5 The Operator agrees that for every 1% reduction in the Trip Frequency or the Bus Kms Frequency, as the case may be, as compared to the Guaranteed Trip Frequency or the Guaranteed Bus Kms Frequency, it shall pay Damages to the Authority at the rate of 1% of the Performance Security. The Damages payable by the Operator for a failure to achieve the Guaranteed Trip Frequency or the Guaranteed Bus Kms Frequency shall be calculated at the end of each quarter. Provided however, if, based on a verification of the Trip Frequency or Bus Kms Frequency, the Authority determines that the Operator has failed to achieve the Guaranteed Trip Frequency directly as a result of a failure to achieve the Guaranteed Bus Kms Frequency, or *vic-e-versa*, then in order to avoid any double counting of the Damages payable by the Operator, the Authority shall only levy Damages for a failure to achieve one of such Key Performance Indicators, as the case may be.
- 20.5.6 The Authority agrees that if, in any quarter, the Trip Frequency or the Bus Kms Frequency is more than the Guaranteed Trip Frequency or the Guaranteed Bus Kms Frequency, respectively, then for every 1% increase in the Trip Frequency or the Bus Kms Frequency over and above the Guaranteed Trip Frequency or the Guaranteed Bus Kms Frequency, as the case may be, the Authority shall pay to the Operator an incentive equal to 0.05% of the Monthly Fees.

20.6 Safety of Operations

- 20.6.1 The Parties agree that the safety of the Buses in the fleet shall be measured in terms of the number of accidents per 1,00,000 Kms (One lakh kilometres) (the "General Safety") and the number of fatalities per 10,00,000 Kms (Ten lakh kilometres) (the "Severe Safety"), respectively.
- 20.6.2 The General Safety shall be calculated by the number of accidents multiplied by 1,00,000 (One lakh) and divided by the cumulative Bus Kms operated for all Buses. The Severe Safety shall be calculated as the number of fatalities multiplied by 10,00,000 (Ten lakh) divided by the cumulative Bus KMs operated for all Buses.
- 20.6.3 The Operator agrees that the assured General Safety ("Assured General Safety") and the assured Severe Safety ("Assured Severe Safety"), as the case may be, determined in accordance with Clause 20.6.1 and 20.6.2 shall be equal to or less than 1 (one).
- 20.6.4 The Operator agrees that for every increase in the General Safety or the Severe Safety, as the case may be, by a factor of 1 (one) as compared to the Assured General Safety or the Assured



Severe Safety, it shall pay Damages to the Authority at the rate of 1 % of the Performance Security.

20.6.5 The Authority agrees that if the General Safety or the Severe Safety, as the case may be, is less than 1 (one), then for every 0.1 decrease in the General Safety or the Severe Safety below a factor of 1 (one), the Authority shall pay to the Operator an incentive equal to 0.05% of the Monthly Fees.

20.8 Operational Infractions

- 20.8.1 The Operator shall Operate and Maintain the Buses so as to minimise the occurrence of any of the Operational Infractions. An Operational Infraction may be identified by the Authority (or the Authority's Representative) either through inspections of the Buses and Maintenance Depots, User complaints or review of the data generated from the ITS.
- 20.8.2 The Operator agrees that upon the occurrence of any Operational Infraction, it shall pay to the Authority Damages of an amount corresponding to the breach of such Operational Infraction as set out in Schedule-T. In the event of any repeated Operational Infractions, the rate of Damages payable by the Operator shall increase in accordance with the provisions of Schedule-T.

20.9 Monthly Report

- 20.9.1 The Operator shall, no later than 7 (seven) days after the end of each month, furnish to the Authority a report containing details of the compliance with the Key Performance Indicators of each Bus as measured on a daily basis. The Operator shall promptly give such other relevant information as may be required by the Authority for the purposes of determining whether the Operator is achieving the Key Performance Indicators as set out in this Article 20.
- 20.9.2 The Operator shall keep due and proper records of all data collected from the operation of the Buses from the Data Monitoring System, ITS or any other systems installed, for the purposes of verification by the Authority.

20.10 Passenger Charter

The Operator shall implement a charter articulating the rights and expectations of Users (the "**Passenger Charter**") as provided by the Authority. The Operator shall at all times be accountable and liable to Users in accordance with the provisions of the Passenger Charter and Applicable Laws.

20.11 Cap on Damages for failure to achieve Key Performance Indicators

The Operator shall ensure and procure compliance of each of the Key Performance Indicators specified in Article 20. Any Damages payable by the Operator for a failure to achieve the Key Performance Indicators set out in Clauses 20.2 to 20.7 in any quarter in accordance with this Article 20 shall be capped at 10% of the aggregate Monthly Fees payable in such quarter. Any Damages payable by the Operator as a result of any Operational Infractions in any month shall be capped at 5% of the Monthly Fees for that month.



20.12 Cap on incentives for exceeding to achieve Key Performance Indicators

The Operator shall ensure and procure compliance of each of the Key Performance Indicators specified in Article 20. Any incentives payable by the Authority to the Operator for exceeding the prescribed Key Performance Indicators in accordance with this Article 20 in any quarter shall be capped at 5% of the aggregate Monthly Fees in such quarter.



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ARTICLE-21 FINANCIAL CLOSE

21.1 Financial Close

- 21.1.1 The Operator hereby agrees and undertakes that it shall achieve Financial Close within 60 (sixty) days from the date of this Agreement and in the event of delay, it shall be entitled to a further period not exceeding 120 (one hundred and twenty) days, subject to payment of Damages to the Authority in a sum calculated at the rate of 0.1% (zero point one per cent) of the Performance Security for each day of delay and for a further period not exceeding 80 (eighty) days, subject to payment of Damages at the rate of 0.25% (zero point two five per cent) of the Performance Security for each day of delay; provided that the Damages specified herein shall be payable every week in advance and the period beyond the said 60 (sixty) days shall be granted only to the extent of Damages so paid; provided further that no Damages shall be payable if such delay in Financial Close has occurred solely as a result of any default or delay by the Authority in procuring satisfaction of the Conditions Precedent specified in Clause 4.1.2 or due to Force Majeure; and provided further that, if such delay in achieving Financial Close has occurred directly as a result of the Author'ty's delay in grant of vacant access and Right of Way to the Depot Sites and Maintenance Depots in accordance with Article 10, the Authority shall pay Damages to the Operator in a sum calculated at the rate of 0.1% (zero point one per cent) of the Performance Security for each day of delay. For the avoidance of doubt, the Damages payable hereunder by the Operator shall be in addition to the Damages, if any, due and payable under the provisions of Clause 4.3 for a failure by the Operator in fulfilling any of its Conditions Precedent specified in Clause 4.1.3.
- 21.1.2 The Operator shall, upon occurrence of Financial Close, notify the Authority forthwith, and shall have provided to the Authority, at least 2 (two) days prior to the Financial Close, 3 (three) true copies of the Financial Package and the Financial Model, duly attested by a Director of the Operator, along with 3 (three) soft copies of the Financial Model in MS Excel version or any substitute thereof, which is acceptable to the Senior Lenders and if applicable, 3 (three) true copies of the Bus Lease Agreement(s).

21.2 Termination due to failure to achieve Financial Close

- 21.2.1 Notwithstanding anything to the contrary contained in this Agreement, in the event that Financial Close does not occur, for any reason whatsoever, within the period set forth in Clause 21.1.1 or the extended period provided thereunder, the Authority shall have the right to terminate this Agreement.
- 21.2.2 Upon Termination under Clause 21.2.1, the Authority shall be entitled to encash from the Performance Security, an amount equal to the Bid Security and appropriate the proceeds thereof as Damages; provided, however, if Financial Close has not occurred solely as a result of the Authority being in default of any of its obligations under Clause 4.1.2, it shall, upon Termination, return the Performance Security forthwith along with the Damages due and payable under Clause 4.3.



FEE

22.1 Fee

- 22.1.1 In consideration for undertaking the Project, the Authority shall pay the Operator a fee calculated on the basis of the total distance travelled in accordance with the Deployment Plan by each Bus operated by the Operator (the "**Bus Kilometres**") in fulfilment of the Operators obligations under this Agreement (the "**Fee**").
- 22.1.2 Subject to Clause 22.4 and Clause 22.5 below, the Fee payable to the Operator under this Agreement shall be calculated by multiplying the aggregate Bus Kilometres travelled by all Buses with INR [●] ("PK Fee") (which shall be fixed except where varied or adjusted in accordance with this Article 22).

For the avoidance of doubt, the payment of the Fee shall be calculated as follows:

Fee = PK Fee X Bus Kilometre X n, where n is the number of Buses

- 22.1.3 The Parties agree that a Bus Kilometre shall comprise of the kilometres travelled by a Bus in respect of:
 - (a) distance travelled by a Bus assigned on a particular Operational Route as per the Deployment Plan;
 - (b) distance travelled by a Bus from the Maintenance Depot to the first point of loading passengers at the commencement of its service on a day
 - (c) distance travelled by a Bus from its last Bus Stop as per the Deployment Plan to the Maintenance Depot at the end of the day's service; and
 - (d) Distance travelled by a Bus, with or without passengers, which is otherwise outside the Deployment Plan but has been requested or approved by the Authority
- 22.1.4 The Operator agrees and acknowledges that a Bus Kilometre, for the purpose of payment of the Fee, shall not include any kilometre travelled by the Bus to any maintenance facilities, other than the Maintenance Depot, or for any travel not authorized by the Authority or otherwise not in accordance with the terms of this Agreement.
- 22.1.5 For each month after the Lot COD of the first Lot of Buses, the Operator shall compute and provide to the Authority, the total number of Bus Kilometres that all the Buses deployed by the Operator in such month have travelled for the period being reckoned for the purpose of raising the invoice. Such calculation shall be made using the ITS installed by the Operator along with the odometer reading of each Bus.
- 22.1.6 The ITS installed by the Operator shall be calibrated with the supervision of the Authority's Representative using the odometer reading of each Bus. In the event the odometer of any Bus is non-functional or does not provide an accurate reading, the Fee for such Bus shall be based on the Bus Kilometres travelled by the respective Bus on the preceding day, multiplied with the PK Fee.



22.1.7 The Authority shall deposit the Fee due and payable to the Operator subject to and in accordance with this Article 22, into the Escrow Account.

22.2 Payment of Fee

- 22.2.1 After the Lot COD for the first Lot of Buses, and for each subsequent month of the Contract Period, the Operator shall submit a monthly invoice in respect of the Bus Kilometres travelled by each Bus which has been put into commercial operation, in accordance with Clause 14.2.1, in the relevant month within 15 (fifteen) days from the end of each month ("**Invoice**"). The first Invoice to be submitted by the Operator after the Lot COD of the first Lot of Buses shall be pro-rated for the number of days from the Lot COD of the first Lot of Buses until the last working day of the month in which the Lot COD occurs. Each subsequent Invoice shall be a monthly invoice to be submitted to the Authority by the 15th (fifteenth) day of the immediately following month.
- 22.2.2 Each Invoice shall set out the following amount
 - (a) the Fee payable to the Operator for such month, based on the aggregate Bus Kilometres travelled by all Buses deployed in such month;
 - (b) any costs, Damages or other charges that the Operator is entitled to recover from the Authority in terms of this Agreement;
 - (c) any costs, Damages or other charges that the Authority is entitled to recover from the Operator in terms of this Agreement;
 - (d) the average electricity consumption (on a kWh/Km basis) per Bus at the aggregate fleet level (to be calculated based on the ITS) during such month; and
 - (e) [any applicable Taxes],

(collectively referred as the "Invoice Amount").

- 22.2.3 Upon the submission of each Invoice, the Authority shall, within 30 (thirty) days from the date of submission of such Invoice, verify and certify the amounts due and payable to the Operator, and either:
 - (a) approve the Invoice and issue a certificate to the Escrow Bank (with a copy to the Operator), conveying its approval for the immediate release of 90% of the amount specified in the Invoice, with the remaining 10% to be released by the 7th (seventh) day of the next month, less any necessary deductions or adjustments in accordance with this Agreement and/or Applicable Laws (including any statutory dues); or
 - (b) issue a notice to the Operator disputing the Invoice and directing the Operator to issue a revised Invoice, after rectifying the errors or discrepancies identified by the Authoriy.

The Operator shall submit a revised Invoice to the Authority after rectifying the errors or discrepancies identified by the Authority and this process will be repeated until the Authority



approves the Invoice and issues a certificate to the Escrow Bank (with a copy to the Operator), conveying its approval for release of the amount specified in the Invoice.

22.2.4 If the Authority fails to either approve an Invoice or issue a notice pursuant to Clause 22.2.3(b) above, within 30 (thirty) days from the date of submission of such Invoice, the Invoice shall be deemed to be approved and the Operator shall have the right to approach the Escrow Bank for release of the amounts set out in the Invoice, provided that the Operator has issued a notice of reminder to the Authority at least 7 (seven) days prior to the expiry of the aforesaid 30 (thirty).

Any dispute between the Parties in relation to an Invoice will be settled in accordance with the Dispute Resolution Procedure.

22.3 Annual Assured Kilometres

- 22.3.1 The Authority agrees that the Deployment Plan shall ensure the average Bus Kilometres scheduled per Bus in each Contract Year, commencing from the end of the First Contract Year will be no less than [•] (the "Annual Assured Bus Kilometres" for respective Lot). For the First Contract Year, the Annual Assured Bus Kilometres for each Bus shall be calculated on a pro rata basis for the number of months each Bus has been put into Commercial Service during the period commencing from the Lot COD of such Bus and expiring at the end of the First Contract Year. Notwithstanding anything to the contrary, for any Buses which are procured and put into Commercial Service after the end of the First Contract Year, the Annual Assured Bus for that Contract Year shall be calculated on a pro rata basis for the number of months such Bus has been in Commercial Service during the period commencing from the Lot COD of such Bus and expiring at the end of the period Bus Kilometres for each such Bus for that Contract Year shall be calculated on a pro rata basis for the number of months such Bus has been in Commercial Service during the period commencing from the Lot COD of such Buses and expiring at the end of that Contract Year.
- 22.3.2 In the event that a Bus made available by the Operator is not deployed for reasons directly attributable to the Authority or due to a Force Majeure Event, and as a result the Bus operates for less than the Annual Assured Bus Kilometres in any Contract Year, then the Authority will pay to the Operator, in addition to the Fees calculated in accordance with Clause 22.2 for Bus Kilometres actually travelled by the Bus in such Contract Year, an amount equal to the 75% PK Fee multiplied by the difference in the actual Bus Kilometres travelled by the Bus deployed in such Contract Year, and the Annual Assured Bus Kilometres (the "Annual Assured Payment Amount").
- 22.3.3 The payment of the Annual Assured Payment Amount shall be made to the Operator on the basis of an Invoice submitted by the Operator ("Annual Assured Payment Invoice"). The Operator shall submit the Annual Assured Payment Invoice for a Contract Year by the last working day of the first month of the following Contract Year.
- 22.3.4 The Annual Assured Payment Invoice shall set out the following amounts:
 - (a) the actual Bus Kilometres travelled by the Bus in accordance with the provisions of this Agreement in the Contract Year;
 - (b) the Annual Assured Payment Amount; and
 - (c) any applicable Taxes,



- 22.3.5 Upon the submission of an Annual Assured Payment Invoice, the Authority shall, within 30 (thirty) days from the date of submission of such Invoice, verify and certify the amounts due and payable to the Operator, and either:
 - (a) approve the Annual Assured Payment Invoice and issue a certificate to the Escrow Bank (with a copy to the Operator), conveying its approval for the immediate release of the amounts specified, less any necessary deductions or adjustments in accordance with this Agreement and/or Applicable Laws (including any statutory dues); or
 - (b) issue a notice to the Operator disputing the Annual Assured Payment Invoice and directing the Operator to issue a revised Annual Assured Payment Invoice, after rectifying the errors or discrepancies identified by the Authority.

The Operator shall submit a revised Annual Assured Payment Invoice to the Authority after rectifying the errors or discrepancies identified by the Authority and this process will be repeated until the Authority approves the Annual Assured Payment Invoice and issues a certificate to the Escrow Bank (with a copy to the Operator), conveying its approval for release of the amount specified.

- 22.3.6 If the Authority fails to either approve an Annual Assured Payment Invoice or issue a notice pursuant to Clause 22.3.5(b) above, within 30 (thirty) days from the date of submission of such Invoice (subject to the Operator having issued a notice of reminder at least 7 (seven) days prior to the expiry of the aforesaid 30 (thirty) day period), the Authority shall pay Damages at the rate of 3% (three percent) above the Bank Rate per annum calculated for each day's delay in approving the Annual Assured Payment Invoice subject to a maximum delay of 1 (one) month after which such delay shall be regarded as an Authority Default.
- 22.3.7 If the Authority utilises any Bus Kilometres over and above the Annual Assured Bus Kilometres, the Operator shall be entitled to receive Fees for such additional Bus Kilometres to be calculated at 50% of the PK Fee multiplied by the actual number of Bus Kilometres utilised over and above the Annual Assured Bus Kilometres. The procedure for invoicing the Annual Assured Payment Amount set out in this Clause 22.3 shall apply *mutatis mutandis* to the invoicing any Bus Kilometres utilised over and above the Annual Assured Section 22.3 shall apply *mutatis mutandis* to the invoicing any Bus Kilometres utilised over and above the Annual Assured Bus Kilometres.

22.4 Revision of Fee

- 22.4.1 The Parties agree that the PK Fee shall be revised annually from second year of the COD of the first lot onwards at a fixed rate of 2.0% of Basic Quoted Rate throughout the contractual period to accommodate price escalation on account of cost of maintenance, material and manpower. However, for the first year, there will be no "**Revision in PK Fee**".
- 22.4.2 For lots with more than one city in the same lot, bidders shall consider highest of minimum wages (skilled category) from the cities in the lot on due date of tender for PK Fee price quote.
- 22.4.3 PK Fees shall be adjusted for the remaining cities based on their Minimum Wage (MinW), assuming 30% of the PK Fee as staff cost



22.4.4 The Parties agree that the formula for PK Fee for the remaining cities in the lot with more than one city shall be derived from PK Fee quoted for the city with highest minimum wages (skilled category) as per the following formula:

PK Fee for City X = PK Fee for City H * [0.7 + (0.3 * (MinW of City X) / (MinW of City H))]For eg. PK Fee of City H (highest MinW in Lot) is INR 100, MinW of City H is INR 20,000 per month , MinW of City X is INR 10,000 per month, PK Fee of City X = 100 * [0.7 + (0.3 * 10,000 / 20,000)] = 85

22.4.5 The Parties agree that the PK Fee shall stand revised pursuant to any amendment in accordance with this Clause 22.4 and shall become the base PK Fee payable to the Operator under this Agreement. For the avoidance of doubt, it is clarified that in the event of any dispute or difference in calculation of the MinW hereunder, the Dispute Resolution Procedure shall apply.

22.5 Electricity Cost

- 22.5.1 The Parties agree and acknowledge that, as on the date of this Agreement, the PK Fee is inclusive of electricity cost including consumption charges, fixed charges, cess, taxes and other charges imposed by the local DISCOM at HT level metering dedicated for the operator. The operator is responsible for payment of electricity charges for operation and maintenance of buses and maintenance depot to the local DISCOM. The Parties agree that the Authority is responsible for any increase in electricity tariff or other related charges including fixed fee, cess, taxes, etc after the time of bidding during the concession period and shall pay the operator the increase in tariff up to the Allowed Power Consumption as defined in 22.5.3. The bidder shall raise invoice against the increase in input costs for electricity cost.
- 22.5.2 For Lot 3 and Lot 5 where more than one Authority/City is part of the same lot, bidders shall quote PK Fee inclusive of electricity cost of City/State with lower tariff/landed cost of electricity. The Authority of City/State with higher electricity tariff shall bear the difference in electricity cost between the two City/State up to the "Allowed Power Consumption" for the lot as mentioned under 22.5.3. The format for input electricity cost for operations is provided in Schedule-S.
- 22.5.3 The Parties agree that average annual power consumption or energy efficiency at the fleet level for the bus lot shall be [●] ("Allowed Power Consumption" for Lot). For the avoidance of doubt, the annual lot power consumption will be calculated as follows:

Annual Lot Power Consumption $(kWh/km) = Total \ electricity \ consumption \ (in \ kWh)/ \ total operated \ kms$ (kms) where electricity consumption and total kms are taken on an annual basis for the lot

22.5.4 The cost of any electricity consumed on account of (i) charging of the Buses requiring electricity in excess of the Allowed Power Consumption; (ii) the use of any other equipment, plant and machinery at the Maintenance Depot (apart from the Charging Infrastructure); and (iii) the Operations and Maintenance of the Maintenance Depot including taxes and other charges imposed by the local DISCOM, shall be payable by the Operator.



22.5.5 The Operator/Authority may install a sub-meter to measure electricity consumption from administrative activites by the Authority at the depot. The Operator shall raise an invoice for the consumption at the prevailing LT electricity rate and the Authority is liable to pay the cost of electricity consumed by the Authority.

22.6 Other Government Fiscal Assistance

- 22.6.1 For the Buses being procured under this Agreement the Authority (or any other Government Instrumentality) may make available to the Operator additional Government Fiscal Assistance for such Buses.
- 22.6.2 If, for each Unsubsidised subsidised Bus, the Authority makes available to the Operator, for every INR 100,000 (one hundred thousand rupees) of Government Fiscal Assistance that is provided, then the PK Fee for the "Unsubsidised Buses" "Subsidised Buses" shall be reduced by INR 0.25 (twenty five paise) for Intracity buses and INR 0.15 (fifteen paise) for Intercity services.
- 22.6.3 Any Government Fiscal Assistance provided by the Authority to the Operator pursuant to Clause 22.6.1 above shall be subject to the Operator procuring and submitting to the Authority a bank guarantee for an equivalent amount ("State Subsidy Bank Guarantee"), substantially in the form specified in Schedule-D. The State Subsidy Bank Guarantee(s) submitted by the Operator shall be valid for a period of 5 (five) years after the COD, or LoT COD, as the case may be, of the subsidised Buses. Provided however, that the Operator shall have the right to, after the completion of each year from the COD, or Lot COD, as the case may be, of the subsidised Buses, reduce the value of the State Subsidy Bank Guarantees by an amount equal to 20% of the subsidy provided by the Authority. The Operator may do so by either procuring, and submitting to the Authority amended State Subsidy Bank Guarantee(s), or by submitting, to the Authority, fresh bank guarantees for the reduced amount. For the avoidance of doubt, the value of the State Subsidy Bank Guarantees may be reduced to nil after the completion of 5 (five) years from the COD, or Lot COD, of the subsidised Buses, provided that the subsidised Buses have been Operated and Maintained in accordance with the requirements of this Agreement. If this Agreement is terminated for an Operator Default prior to the expiry of 5 (five) years from the COD, or Lot COD, of the subsidised Buses, the Authority shall encash the State Subsidy Bank Guarantees available with it at the time.



TRAINING AND DEPUTATION OF GOVERNMENT EMPLOYEES

23.1 Training

If the Operator requests the Authority for engaging the Authority's employees and the Authority agrees to such request in accordance with Clause 6.1.2(i), the Operator shall provide training to the staff of the Authority in accordance with the provisions of this Article 23 (the "**Training Obligations**").

23.2 Content and duration of training

- 23.2.1 The content of the training shall comprise transfer of knowledge and skills required for Operation and Maintenance of Buses and Maintenance Depots, as the case may be, and shall be developed by the Operator in consultation with the Authority.
- 23.2.2 The training specified in this Clause 23.2 shall include on-the-job training at the Maintenance Depots and the Operator shall provide capacity building workshops and simulation training to all drivers of the Buses in accordance with Applicable Laws and Good Industry Practices.
- 23.2.3 The duration of training courses shall normally be for a minimum period of 6 (six) days and a maximum of 24 (twenty-four) days.
- 23.2.4 The number of trainees participating in training at any time shall normally be a minimum of 10 (ten) and a maximum of 20 (twenty).

23.3 Location of training

- 23.3.1 Training courses, as may be required by the Authority prior to the Commercial Operation Date, shall be conducted by the Operator at the Maintenance Depots or a location nominated by the Authority.
- 23.3.2 The Operator shall procure that the following minimum facilities shall be installed and operated at the training premises:
 - (a) air-conditioned lecture halls; and
 - (b) any other facilities and infrastructure required for conducting the training in accordance with the provisions of this Agreement.
- 23.3.3 The driver training simulator to be provided by the Operator shall be a computer controlled visual system showing the road and signals ahead and interfaced with the driver's controls. The simulator shall include:
 - (a) A driver's desk mounted within a motion simulated driving cab;
 - (b) a driver instructor's console including a steering wheel, [gear transmission], for inputting information and observing the driver's technique along with printing facilities for recording the proceedings;



- (c) adequate margin in design of software and hardware to accommodate minor changes/ addition of features in future, if required;
- (d) a design that shall accommodate road/signalling features of the section through video generated graphics for at least (5 Kms (five kilometres) in each direction); and
- (e) other features in accordance with Good Industry Practice.
- 23.3.4 A computer-based training (CBT) module to be provided by the Operator shall simulate fault finding steps required to be taken by maintenance staff in accordance with Good Industry Practice.

23.4 Annual training programme

The Operator shall prepare and conduct an annual training programme in consultation with the Authority and convey the proposed dates for such training programme to the Authority, at least 3 (three) months prior to the commencement of an Accounting Year.

23.5 Costs of training

The Operator shall bear the cost of any training provided pursuant to this Article 23, including the faculty salaries and expenses and the cost of the training material.

23.6 Deputation

- 23.6.1 The Authority may, in accordance with the provisions of this Article 23, and at the request of the Operator, second its maintenance staff on deputation to the Operator for performing the Maintenance Obligations.
- 23.6.2 The tenure of deputation under this Clause 23.6 shall be for a minimum period of 2 (two) years and a maximum of 7 (seven) years.
- 23.6.3 Save and except as otherwise provided herein, the conditions of service of the staff on deputation with the Operator, including their promotions and emoluments, shall be governed by the applicable rules of the Authority. Provided however, that the Operator may, in its sole discretion, cancel or terminate the deputation of any maintenance staff seconded by the Authority pursuant to this Clause 23.6, if such staff member is found to be in breach of the Operator's policies on human resources, code of conduct, business ethics etc.

23.7 Terms of deputation

- 23.7.1 The Authority shall pay the salary and allowances to the staff seconded to the Operator as though such staff was still on the rolls of the Authority.
- 23.7.2 The Operator shall reimburse to the Authority the salary, allowances and bonus paid by the Authority to the staff on deputation; provided that the medical expenses, if any, shall be borne solely by the Authority.





- 23.7.3 The Operator shall pay to each staff on deputation, a deputation-cum-performance allowance, in accordance with the applicable rules of the Authority. Travel allowance of such staff shall be paid by the Operator in accordance with its norms. No other incentive or payment shall be made by the Operator to the staff.
- 23.7.4 The Operator may make available to the staff on deputation, facilities including canteen, rest rooms, personal protective equipment, uniform, conveyance, recreational facilities and housing. It is clarified that staff on deputation shall be entitled to avail leave as per the leave policy of the Authority and that the Operator shall not be excused from performance of its obligations under this Agreement on account of any leave obtained by the staff on deputation if such leave is as per the entitlement of such staff.



TRANSFER OF MAINTENANCE DEPOTS

24.1 Transfer of Maintenance Depots

- 24.1.1 The Maintenance Depots shall, in accordance with the provisions of this Agreement, be handed over to the Authority upon Termination of this Agreement or expiry of the Contract Period. The Parties expressly agree that for and in respect of the transfer hereunder, the provisions of Article 33 shall apply *mutatis mutandis*.
- 24.1.2 Upon the handover of the Maintenance Depots from the Operator to the Authority pursuant to Clause 24.1.1, all equipment, machinery, building, structures, hardware, software and other assets comprising the Maintenance Depots (including the Charging Infrastructure) shall vest in the Authority without any Encumbrance.

24.2 Provision of Spares upon Termination

- 24.2.1 In the event of termination of this Agreement, along with the Maintenance Depots handed over to the Authority under this Article 24, the Operator shall provide to the Authority, free of charge, an inventory of Spares. The inventory shall comprise of Spares equivalent to one-half of the average annual consumption of Spares in the Buses and at the Maintenance Depots during the preceding 3 (three) years. For this purpose, the Operator shall compute the total consumption of each Spare, during the preceding 3 (three) years and divide the same by 3 (three) for arriving at the average annual consumption, and all fractions shall be rounded off to the nearest whole number.
- 24.2.2 Without prejudice to the provisions of Clause 24.2.1, the Authority may, in its discretion, require the Operator to provide an additional inventory of Spares, equal in all respects to the inventory of Spares specified in Clause 24.2.1, or such proportion thereof as the Parties may by mutual agreement determine. The cost of any such additional Spares shall be paid by the Authority to the Operator.
- 24.2.3 All Spares provided by the Operator under this Clause 24.2 shall carry a warranty of 30 (thirty) months from their delivery or 24 (twenty four) months from the date of its use in the Buses or the Maintenance Depots, whichever is earlier, at no additional cost to the Authority. The terms of such warranty shall be determined in accordance with Good Industry Practice.



INSURANCE

25.1 Insurance during Contract Period

The Operator shall effect and maintain at its own cost, during the Contract Period, such insurances for such maximum sums as may be required under this Agreement, Applicable Laws, and such insurances as may be necessary or prudent in accordance with Good Industry Practice. The Operator shall also effect and maintain such insurances as may be necessary for mitigating the risks that may devolve on the Authority as a consequence of any act or omission of the Operator during the Contract Period. The Operator shall procure that in each insurance policy, the Authority shall be a co-insured.

25.2 Insurance Cover

Without prejudice to the provisions contained in Clause 25.1, the Operator shall, during the Contract Period, procure and maintain Insurance Cover including but not limited to the following:

- (a) total loss, damage or destruction of the Maintenance Depots, Buses, Charging Infrastructure and Opportunity Charging Stations, if any;
- (b) comprehensive third party liability insurance for life, goods or property, including injury to or death of personnel of the Authority or others, arising from any accident at the Maintenance Depots or otherwise, caused by a Bus on account of any negligence of the Operator or a defect or deficiency in a Bus;
- (c) the Operator's general liability arising out of the Agreement;
- (d) workmen's compensation insurance; and
- (e) any other insurance that may be necessary to protect the Operator and its employees, including all Force Majeure Events that are insurable and not otherwise covered in items (a) to (d) above.

25.3 Notice to the Authority

No later than 15 (fifteen) days from the Appointed Date, the Operator shall by notice furnish to the Authority, in reasonable detail, information in respect of the insurances that it proposes to effect and maintain in accordance with this Article 25. Within 15 (fifteen) days of receipt of such notice, the Authority may require the Operator to effect and maintain such other insurances as may be necessary pursuant hereto, and in the event of any difference or disagreement relating to any such insurance, the Dispute Resolution Procedure shall apply.

25.4 Evidence of Insurance Cover



All insurances obtained by the Operator in accordance with this Article 25 shall be maintained with insurers on terms consistent with Good Industry Practice. Within 15 (fifteen) days of obtaining any insurance cover, the Operator shall furnish to the Authority, notarised true copies of the certificate(s) of insurance, copies of insurance policies and premia payment receipts in respect of such insurance, and no such insurance shall be cancelled, modified, or allowed to expire or lapse until the expiration of at least 45 (forty five) days after notice of such proposed cancellation, modification or non-renewal has been delivered by the Operator to the Authority.

25.5 Remedy for failure to insure

If the Operator fails to effect and keep in force all insurances for which it is responsible pursuant hereto, the Authority shall have the option to either keep in force any such insurances, and pay such premia and recover the costs thereof from the Operator, or in the event of computation of a Termination Payment, treat an amount equal to the Insurance Cover as deemed to have been received by the Operator.

25.6 Waiver of subrogation

All insurance policies in respect of the insurance obtained by the Operator pursuant to this Article 25 shall include a waiver of any and all rights of subrogation or recovery of the insurers thereunder against, *inter alia*, the Authority, and its assigns, successors, undertakings and their subsidiaries, affiliates, employees, insurers and underwriters, and of any right of the insurers to any set-off or counterclaim or any other deduction, whether by attachment or otherwise, in respect of any liability of any such person insured under any such policy or in any way connected with any loss, liability or obligation covered by such policies of insurance.

25.7 Operator's waiver

The Operator hereby further releases, assigns and waives any and all rights of subrogation or recovery against, *inter alia*, the Authority and its assigns, undertakings and their subsidiaries, affiliates, employees, successors, insurers and underwriters, which the Operator may otherwise have or acquire in or from or in any way connected with any loss, liability or obligation covered by policies of insurance maintained or required to be maintained by the Operator pursuant to this Agreement (other than third party liability insurance policies) or because of deductible clauses in or inadequacy of limits of any such policies of insurance.

25.8 Application of insurance proceeds

The proceeds from all insurance claims, except life and injury, shall be paid to the Operator, and it shall apply such proceeds for any necessary repair, reconstruction, reinstatement, replacement, improvement, delivery or installation of the Buses or Maintenance Depots.

25.9 Compliance with conditions of insurance policies

The Operator expressly acknowledges and undertakes to fully indemnify the Authority from and against all losses and claims arising from the Operator's failure to comply with conditions imposed by the insurance policies effected in accordance with this Agreement.



Signature:-Subject: CN=MAHENDRA SINGH, SERIALNUMBER=6cbeabfc6d23672f81d4da801 6722444d6ec7e96fa1c207cc28d61b8, 57=DELH, OID,2:5,4:17=110003, O ID,2:5,4:20=568477f052abf996686234344cba1cbd6fe0256966297a5e166b 27acb4d2fc, Ou=SUPPLY CHAIN MANAGEMENT, O=ENERGY EFFICIENCY SERV ICES LIMITED, OU=SUPPLY CHAIN

ACCOUNTS AND AUDIT

26.1 Audited accounts

- 26.1.1 The Operator shall maintain books of accounts recording all its receipts, income, expenditure, payments, assets and liabilities, in accordance with this Agreement, Good Industry Practice, Applicable Laws and Applicable Permits. The Operator shall provide 2 (two) copies of its balance sheet, cash flow statement and profit and loss account, along with a report thereon by its Statutory Auditors, within 90 (ninety) days of the close of its accounting year to which they pertain and such audited accounts, save and except where expressly provided to the contrary, shall form the basis of payments by either Party under this Agreement. The Authority shall have the right to inspect the records of the Operator during office hours and require copies of relevant extracts of books of accounts, duly certified by the Statutory Auditors, to be provided to the Authority for verification of basis of payments, and in the event of any discrepancy or error being found, the same shall be rectified and such rectified account shall form the basis of payments by either Party under this Agreement.
- 26.1.2 The Operator shall, within 30 (thirty) days of the close of each quarter of its accounting year, furnish to the Authority its unaudited financial results in respect of the preceding quarter, in the manner and form prescribed by the Securities and Exchange Board of India for publication of quarterly results by the companies listed on a stock exchange.
- 26.1.3 On or before the expiry of 2 (two) months after its accounting year, the Operator shall provide to the Authority, for that accounting year, a statement duly audited by its Statutory Auditors giving summarised information on (a) the bills raised by the Operator for payment by the Authority, (b) the payments received and other revenues derived from the Authority, and (c) such other information as the Authority may reasonably require.

26.2 Appointment of auditors

- 26.2.1 The Operator shall appoint, and have during the subsistence of this Agreement as its Statutory Auditors, a firm chosen by it from the mutually agreed list of 3 (three) reputable firms of chartered accountants (the "**Panel of Chartered Accountants**"), such list to be prepared substantially in accordance with the criteria set forth in Schedule-Q. In case the bidder has an existing statutory auditor meeting the eligibility criteria mentioned in Schedule-Q, the Operator shall request the Authority for appointment of the existing auditors for the project. The Authority may, at its discretion agree to the appointimet of the operator's existing Statutory Auditor for the project. All fees and expenses of the Statutory Auditors shall be borne by the Operator.
- 26.2.2 The Operator may terminate the appointment of its Statutory Auditors after a notice of 45 (forty-five) days to the Authority, subject to the replacement Statutory Auditors being appointed from the Panel of Chartered Accountants.
- 26.2.3 Notwithstanding anything to the contrary contained in this Agreement, the Authority shall have the right, but not the obligation, to appoint at its cost from time to time and at any time, another firm (the "Additional Auditors") from the Panel of Chartered Accountants to audit and verify



all those matters, expenses, costs, realisations and things which the Statutory Auditors are required to do, undertake or certify pursuant to this Agreement.

26.3 Certification of claims by Statutory Auditors

Any claim or document provided by the Operator to the Authority in connection with or relating to receipts, income, payments, costs, expenses, accounts or audit, and any matter incidental thereto shall be valid and effective only if certified by its Statutory Auditors.

26.4 Set-off

In the event any amount is due and payable by the Authority to the Operator, it may set-off any sums payable to it by the Operator and pay the balance remaining forthwith.

26.5 Dispute resolution

In the event of there being any difference between the findings of the Additional Auditors and the certification provided by the Statutory Auditors, such Auditors shall meet to resolve the differences and if they are unable to resolve the same, such Dispute shall be resolved by the Authority by recourse to the Dispute Resolution Procedure.



ESCROW ACCOUNT

27.1 Escrow Account

- 27.1.1 The Authority shall, prior to the Appointed Date open and establish an account ("**Escrow Account**") with a Bank ("**Escrow Bank**") in accordance with this Agreement and the Escrow Agreement.
- 27.1.2 For the purpose of opening and operating the Escrow Account, the Authority shall, as a Condition Precedent, enter into an agreement with the Operator and Escrow Bank ("**Escrow Agreement**") in accordance with the format provided in Schedule-M to this Agreement.
- 27.1.3 The Authority shall on or before the Lot COD of the first Lot of Buses, deposit in the Escrow Account a sum equal to 2 (two) months' estimated Fees payable to the Operator as a revolving fund and for this purpose, the Authority shall replenish with its own resources, any deficit that may arise in maintaining such balance of funds ("**Minimum Escrow Balance**").
- 27.1.4 During the Contract Period, the Authority shall ensure that on the 1st (first) day of each month after COD, the Escrow Account is replenished so as to maintain the Minimum Escrow Balance in accordance with the terms of this Agreement. If, at any point in time during the Contract Period, the Authority fails to maintain the Minimum Escrow Balance, it shall have a period of 30 (thirty) days within which it shall be required to replenish the Escrow Account so as to ensure that the Minimum Escrow Balance is maintained. If the Authority fails to ensure that the Minimum Escrow Balance is maintained upon the expiry of the aforesaid 30 (thirty) day period, then the Minimum Escrow Balance shall be increased by at a rate equal to 3% over and above the Bank Rate for every 1 (one) month that the Authority fails to maintain the Minimum Escrow Balance.
- 27.1.5 Detailed ESCROW mechanism shall be inserted in due course of time, but no later than the award of LOA.

27.2 Deposit in Escrow Account

- 27.2.1 For the purpose of maintaining the Minimum Escrow Balance, the Authority shall deposit or cause to be deposited the following inflows and receipts into the Escrow Account:
 - (a) All Fees due and payable to the Operator subject to and in accordance with Article 22;
 - (b) any deposits required to be made by the Authority to maintain the Minimum Escrow Balance;
 - (c) all grants, payments and financial support received by the Authority from the State Government and/or GoI in relation to the Project;
 - (d) amounts towards insurance claims, if any, received;



- (e) all payments due to the Operator towards any Damages payable by the Authority under and in accordance with the terms of this Agreement;
- (f) any amounts towards Termination Payment due to the Operator;
- (g) all revenues generated and all the income accruing from the Project including but not limited to the User Fare and advertising revenue, deposits ; and
- (h) any other revenues or capital receipts from or in respect of the Project.

27.3 Withdrawal During Contract Period

- 27.3.1 The Authority shall, at the time of opening the Escrow Account, give irrevocable instructions, by way of the Escrow Agreement, to the Escrow Bank instructing, *inter alia*, that deposits in the Escrow Account shall be appropriated in the following order every month, or at shorter intervals as may be necessary pursuant to the terms of this Agreement, and if not due in a month then appropriated proportionately in such month and retained in the Escrow Account and paid out therefrom in the month when due:
 - (a) All fees to payable to the operator for operation and maintenance of buses as defined under Article 22
 - (b) all taxes due and payable by the Operator for and in respect of the Project;
 - (c) all payments relating to Fit Out Works, Operations and Maintenance of the Maintenance Depots, the procurement of the Buses and procurement and installation of the Charging Infrastructure subject to and in accordance with the conditions, if any, set forth in the Financing Agreements;
 - (d) O&M Expenses, subject to the ceiling, if any, set forth in the Financing Agreements;
 - (d) monthly proportionate provision of Debt Service due in an Accounting Year;
 - (e) monthly proportionate provision of Debt Service payments due in an Accounting Year in respect of Subordinated Debt;
 - (b) O&M Expenses and other costs and expenses incurred by the Authority in accordance with the provisions of this Agreement, and certified by the Authority as due and payable to it;
 - (c) all payments and Damages certified by the Authority as due and payable to it by the Operator;

(h) any reserve requirements set forth in the Financing Agreements; and

- (d) balance, if any, in accordance with the instructions of the Operator.
- 27.3.2 The Authority shall not in any manner modify the order of payment specified in Clause 27.3.1, except with the prior written approval of the Operator.



27.4 Withdrawal upon Termination

- 27.4.1 Notwithstanding anything to the contrary contained in the Escrow Agreement upon Termination of this Agreement, all the amounts standing to the credit of the Escrow Account mentioned below shall be appropriated in the following order.
 - (a) all taxes due and payable by the Operator for and in respect of the Project;
 - (b) 90% (ninety per cent) of Debt Due excluding Subordinated Debt;
 - (c) outstanding Debt Service including the balance of Debt Due;
 - (d) outstanding Subordinated Debt;
 - (b) incurred or accrued O&M Expenses;
 - (c) all payments and Damages certified by the Authority as due and payable to it by the Operator;
 - (d) retention and payments relating to the liability for defects and deficiencies set forth in Article 37;
 - (e) any payments due and payable to the Authority;
 - (f) any other payments required to be made under this Agreement; and
 - (g) balance, if any, in accordance with the instructions of the Operator.

Provided that no appropriations shall be made under Sub-clause (i) of this Clause 27.4.1 until a Vesting Certificate has been issued by the Authority under the provisions of Article 27. The provisions of this Article 27 and the instructions contained in the Escrow Agreement shall remain in full force and effect until the obligations set forth in Clause 27.4.1 have been discharged.



TRAFFIC REGULATION AND SECURITY

28.1 Traffic regulation by the Operator

- 28.1.1 The Operator shall, in consultation with the Authority, regulate the use of the Buses by the Users in accordance with Applicable Laws and subject to the supervision and control of the Authority or a substitute thereof empowered in this behalf under the Applicable Laws.
- 28.1.2 The Operator shall, in consultation with the Authority, evolve and publicise a system based on Good Industry Practice such that no User or category of Users is discriminated against or unduly favoured, as the case may be, in the use of the Buses.
- 28.1.3 The Operator shall have the right and obligation to manage, operate and regulate the Buses on a common carrier basis providing non-discriminatory services to all persons.

28.2 Security

- 28.2.1 The Operator acknowledges and agrees that unless otherwise specified in this Agreement it shall, at its own cost and expense, provide or cause to be provided security at the Maintenance Depots and within the Buses for the prevention of vandalism, arson, terrorism, hijacking, sabotage and/or similar acts or occurrences; provided that the Authority and the Operator may at any time mutually enter into an agreement to jointly provide security services in the Buses.
- 28.2.2 The Operator shall abide by and implement any instructions of the Authority for enhancing the security within the Buses and at the Maintenance Depots. The Operator shall co-operate with any relevant organisations appointed by the Authority for the purpose providing security. The Authority agrees that it shall cause the relevant organisations to take such actions as reasonably deemed necessary by them, in order to ensure security within the Buses, without unduly or unreasonably disrupting the operations of the Buses or interfering with the exercise of rights or fulfilment of obligations by the Operator under this Agreement. The Operator agrees that it shall extend its full support and cooperation to the Authority and to the other organisations authorised by the Authority in the discharge of their obligations thereunder.
- 28.2.3 Subject to the rights of the Operator under this Clause 28.2.3, the Authority or any agency duly authorised by it shall be entitled to inspect and search all Buses and the Maintenance Depots and to search any person or vehicle entering the Depot Sites or departing there from, without unduly or unreasonably disrupting the operations of the Buses.
- 28.2.4 The Authority agrees that it shall, at the request of the Operator, procure and provide the services of security forces of the Authority on a best effort basis.
- 28.2.5 The Authority shall ensure and procure that the personnel of the Operator and all its contractors, suppliers, sub-contractors and agents and the Users of the Buses are allowed free ingress and egress from the limits of the Buses and the Maintenance Depots without any unreasonable interference by the personnel of the Authority, including the security personnel employed by or on behalf of the Authority.



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FORCE MAJEURE

29.1 **Force Majeure**

As used in this Agreement, the expression "Force Majeure" or "Force Majeure Event" shall mean, save and except as expressly provided otherwise, occurrence in India of any Non-Political Event, Indirect Political Event and Political Event, as defined in Clauses 29.2, 29.3 and 29.4, respectively, if, and to the extent, it affects the performance by the Party claiming the benefit of Force Majeure (the "Affected Party") of its obligations under this Agreement and which act or event (a) is beyond the reasonable control of the Affected Party, and (b) could not have been prevented or overcome by the Affected Party by exercise of due diligence and by following Good Industry Practice, and (c) has a Material Adverse Effect on the Affected Party.

29.2 **Non-Political Event**

A Non-Political Event shall mean one or more of the following acts or events:

- (a) act of God, epidemics, pandemics, extremely adverse weather conditions, lightning, earthquake, landslide, cyclone, flood, volcanic eruption, chemical or radioactive contamination or ionising radiation, fire or explosion;
- (b) strikes or boycotts (other than those involving the Operator, Contractors or their respective employees/representatives, or directly attributable to any act or omission of any of them) interrupting supplies and services to the Project for a continuous period of 24 (twenty four) hours and an aggregate period exceeding 7 (seven) days in an Accounting Year, and not being an Indirect Political Event set forth in Clause 29.3;
- (c) any failure or delay of a Contractor but only to the extent caused by another Non-Political Event and which does not result in any offsetting compensation being payable to the Operator by or on behalf of such Contractor;
- any delay or failure of an overseas Contractor to deliver the Buses or equipment to (d) India if such delay or failure is caused outside India by any event specified in Subclause (a) above and which does not result in any offsetting compensation being payable to the Operator by or on behalf of such Contractor;
- any judgement or order of any court of competent jurisdiction or statutory authority (e) made against the Operator in any proceedings for reasons other than (i) failure of the Operator to comply with any Applicable Law or Applicable Permit, or (ii) on account of breach of any Applicable Law or Applicable Permit or of any contract, or (iii) enforcement of this Agreement, or (iv) exercise of any of its rights under this Agreement by the Authority;
- (f) the discovery of geological conditions, toxic contamination or archaeological remains on the Depot Sites that could not reasonably have been expected to be discovered through a site inspection; or



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(g) any event or circumstances of a nature analogous to any of the foregoing.

29.3 Indirect Political Event

An Indirect Political Event shall mean one or more of the following acts or events:

- (a) an act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, riot, insurrection, terrorist or military action, civil commotion or politically motivated sabotage;
- (b) any political or economic upheaval, disturbance, movement, struggle or similar occurrence which could not have been anticipated or foreseen by a prudent person and which causes the construction or operation of the Project to be financially unviable or otherwise not feasible;
- (c) industry-wide or State-wide strikes or industrial action for a continuous period of 24 (twenty-four) hours and exceeding an aggregate period of 7 (seven) days in an Accounting Year;
- (d) any civil commotion, boycott or political agitation which prevents production, and assembly of Buses, Fit Out Works at the Maintenance Depots or fulfilment of Operations and Maintenance obligations of the Operator for an aggregate period exceeding 15 (fifteen) days in an Accounting Year;
- (e) failure of the Authority to permit the Operator to continue perform its obligations under this Agreement, with or without modifications, in the event of stoppage of any works after discovery of any geological or archaeological finds or for any other reason;
- (f) any failure or delay of a Contractor to the extent caused by any Indirect Political Event and which does not result in any offsetting compensation being payable to the Operator by or on behalf of such Contractor;
- (g) any Indirect Political Event that causes a Non-Political Event;
- (h) the imposition, by any Government Instrumentality, of any lockdowns, curfews or mandatory quarantine rules arising out of the occurrence of any Non-Political Event or otherwise, which prevents the manufacture, procurement and delivery of the Buses, of the Fit Out Works at the Maintenance Depots or fulfilment of the Operations and Maintenance obligations of the Operator for an aggregate period exceeding 7 (seven) days in an Accounting Year; or
- (i) any event or circumstances of a nature analogous to any of the foregoing.

29.4 Political Event

A Political Event shall mean one or more of the following acts or events by or on account of any Government Instrumentality:



- (a) a Change in Law;
- (b) compulsory acquisition in national interest or expropriation of any Project Assets or rights of the Operator or of the Contractors;
- (c) unlawful or unauthorised or without jurisdiction revocation of, or refusal to renew or grant without valid cause, any clearance, licence, permit, authorisation, no objection certificate, consent, approval or exemption required by the Operator or any of the Contractors to perform their respective obligations under this Agreement and the Project Agreements; provided that such delay, modification, denial, refusal or revocation did not result from the Operator's or any Contractor's inability or failure to comply with any condition relating to grant, maintenance or renewal of such clearance, licence, authorisation, no objection certificate, exemption, consent, approval or permit;
- (d) any failure or delay of a Contractor but only to the extent caused by another Political Event and which does not result in any offsetting compensation being payable to the Operator by or on behalf of such Contractor; or
- (e) any event or circumstance of a nature analogous to any of the foregoing.

29.5 Duty to report Force Majeure Event

- 29.5.1 Upon occurrence of a Force Majeure Event, the Affected Party shall by notice report such occurrence to the other Party forthwith. Any notice pursuant hereto shall include full particulars of:
 - (a) the nature and extent of each Force Majeure Event which is the subject of any claim for relief under this Article 29 with evidence in support thereof;
 - (b) the estimated duration and the effect or probable effect which such Force Majeure Event is having or will have on the Affected Party's performance of its obligations under this Agreement;
 - (c) the measures which the Affected Party is taking or proposes to take for alleviating the impact of such Force Majeure Event; and
 - (d) any other information relevant to the Affected Party's claim.
- 29.5.2 The Affected Party shall not be entitled to any relief for or in respect of a Force Majeure Event unless it shall have notified the other Party of the occurrence of the Force Majeure Event as soon as reasonably practicable, and in any event no later than 7 (seven) days after the Affected Party knew, or ought reasonably to have known, of its occurrence, and shall have given particulars of the probable material effect that the Force Majeure Event is likely to have on the performance of its obligations under this Agreement.
- 29.5.3 For so long as the Affected Party continues to claim to be materially affected by such Force Majeure Event, it shall provide the other Party with regular (and not less than weekly) reports containing information as required by Clause 29.5.1, and such other information as the other Party may reasonably request the Affected Party to provide.



29.6 Effect of Force Majeure Event on the Contract Period

- 29.6.1 Upon the occurrence of any Force Majeure Event prior to the Appointed Date, the period set forth in Clause 4.2 for fulfilment of Conditions Precedent and for achieving the Appointed Date shall be extended by a period equal in length to the duration of the Force Majeure Event.
- 29.6.2 At any time after the Appointed Date and up until COD, if any Force Majeure Event occurs, the Contract Period shall be extended by a period, equal in length to the period during which the Operator was prevented from performing its obligations.

29.7 Allocation of costs arising out of Force Majeure

- 29.7.1 Upon occurrence of any Force Majeure Event prior to the Appointed Date, the Parties shall bear their respective costs and no Party shall be required to pay to the other Party any costs thereof.
- 29.7.2 Upon occurrence of a Force Majeure Event after the Appointed Date, the costs incurred and directly attributable to such event and directly relating to the Project (the "Force Majeure Costs") shall be allocated and paid as follows:
 - upon occurrence of a Non-Political Event, the Parties shall bear their respective Force Majeure Costs and neither Party shall be required to pay to the other Party any costs thereof;
 - (b) upon occurrence of an Indirect Political Event, all Force Majeure Costs attributable to such Indirect Political Event, and not exceeding the Insurance Cover for such Indirect Political Event, shall be borne by the Operator, and to the extent Force Majeure Costs exceed such Insurance Cover, one half of such excess amount shall be reimbursed by the Authority to the Operator; and
 - (c) upon occurrence of a Political Event, all Force Majeure Costs attributable to such Political Event shall be reimbursed by the Authority to the Operator, provided that in case of a Change in Law no additional compensation shall be payable to the Operator if the consequences of such Change in Law have been dealt with under and in accordance with the provisions of Article 36.

For the avoidance of doubt, Force Majeure Costs shall only include costs directly attributable remedying, rectifying and/or mitigating such Force Majeure Event and shall not include interest payments on debt, O&M Expenses, any increase in the cost of the Fit Out Works or the Buses on account of inflation, loss of income or debt repayment obligations and for determining such costs, the Affected Party shall be required to submit such information as may be relevant to evidence that it has incurred such costs, including documentary proof such as receipts, challans, invoices etc.

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29.7.3 Save and except as expressly provided in this Article 29, neither Party shall be liable in any manner whatsoever to the other Party in respect of any loss, damage, cost, expense, claims, demands and proceedings relating to or arising out of occurrence or existence of any Force Majeure Event or exercise of any right pursuant hereto.

29.8 Termination Notice for Force Majeure Event

- 29.8.1 If a Force Majeure Event affecting all, or substantially all, parts of the Project subsists for a period of 180 (one hundred and eighty) days or more within a continuous period of 365 (three hundred and sixty five) days, then and subject to Clause 29.8.2 below, either Party may in its discretion terminate this Agreement by issuing a Termination Notice to the other Party without being liable in any manner whatsoever, save as provided in this Article 29, and upon issue of such Termination Notice, this Agreement shall, notwithstanding anything to the contrary contained herein, stand terminated forthwith; provided that before issuing such Termination Notice, the Party intending to issue the Termination Notice shall inform the other Party of such intention and grant 15 (fifteen) days' time to make a representation, and may after the expiry of such 15 (fifteen) days period, whether or not it is in receipt of such representation, in its sole discretion issue the Termination Notice.
- 29.8.2 If a Force Majeure Event affecting all, or substantially all, parts of the Project occurs after the Lot COD has been achieved for at least 80% (eighty percent) of the total Buses procured under this Agreement, and provided that the Authority is fulfilling its obligations under Clause 22.3.2, the Operator shall not have a right to terminate this Agreement for an extended Force Majeure Event under Clause 29.8.1 above.

29.9 Termination Payment for Force Majeure Event

- 29.9.1 If Termination is on account of a Non-Political Event, the Authority shall make a Termination Payment to the Operator in an amount equal to 90% (ninety per cent) of the Debt Due less Insurance Cover.
- 29.9.2 If Termination is on account of an Indirect Political Event, the Authority shall make a Termination Payment to the Operator in an amount equal to:
 - (a) Debt Due less Insurance Cover; provided that if any insurance claims forming part of the Insurance Cover are not admitted and paid, then 80% (eighty per cent) of such unpaid claims shall be included in the computation of Debt Due;
 - (b) 110% (one hundred and ten per cent) of the Adjusted Equity; and
 - (c) an amount equivalent to the Additional Termination Payment less Insurance Cover; provided that if any insurance claims forming part of the Insurance Cover are not admitted and paid, then 80% (eighty per cent) of such unpaid claims shall be included in computation of the amount payable hereunder.
- 29.9.3 If Termination is on account of a Political Event, the Authority shall make a Termination Payment to the Operator in an amount that would be payable under Clause 32.3 as if it were an Authority Default.



29.10 Dispute resolution

In the event that the Parties are unable to agree in good faith about the occurrence or existence of a Force Majeure Event, such Dispute shall be finally settled in accordance with the Dispute Resolution Procedure; provided that the burden of proof as to the occurrence or existence of such Force Majeure Event shall be upon the Party claiming relief and/or excuse on account of such Force Majeure Event. Asset redeployment shall be allowed while termination is in process.

29.11 Excuse from performance of obligations

- 29.11.1 If the Affected Party is rendered wholly or partially unable to perform its obligations under this Agreement because of a Force Majeure Event, it shall be excused from performance of such of its obligations to the extent it is unable to perform on account of such Force Majeure Event; provided that:
 - (a) the suspension of performance shall be of no greater scope and of no longer duration than is reasonably required by the Force Majeure Event;
 - (b) the Affected Party shall make all reasonable efforts to mitigate or limit damage to the other Party arising out of or as a result of the existence or occurrence of such Force Majeure Event and to cure the same with due diligence; and
 - (c) when the Affected Party is able to resume performance of its obligations under this Agreement, it shall give to the other Party notice to that effect and shall promptly resume performance of its obligations hereunder.



COMPENSATION FOR BREACH OF AGREEMENT

30.1 Compensation for default by the Operator

In the event of the Operator being in material default or breach of this Agreement, it shall pay to the Authority by way of compensation, all direct costs suffered or incurred by the Authority as a consequence of such material default or breach, within 30 (thirty) days of receipt of the demand supported by necessary particulars thereof; provided that no compensation shall be payable under this Clause 30.1 for any default or breach in respect of which Damages are expressly specified and payable under this Agreement.

30.2 Compensation for default by the Authority

In the event of the Authority being in material default or breach of this Agreement at any time after the Appointed Date, it shall pay to the Operator by way of compensation, all direct costs suffered or incurred by the Operator as a consequence of such material default or breach within 30 (thirty) days of receipt of the demand supported by necessary particulars thereof; provided that no such compensation shall be payable for any material breach or default in respect of which Damages have been expressly specified in this Agreement.

30.3 Extension of Contract Period

Subject to the provisions of Clause 30.5, in the event that a material default or breach of this Agreement set forth in Clause 30.2 causes delay in achieving COD, the Authority shall, in addition to payment of compensation under Clause 30.2, extend the Contract Period, with such extension being equal in duration to the period by which COD was delayed.

30.4 Compensation to be in addition

Compensation payable under this Article 30 shall be in addition to, and without prejudice to, the other rights and remedies of the Parties under this Agreement including Termination thereof.

30.5 Mitigation of costs and damage

The affected Party shall make all reasonable efforts to mitigate or limit the costs and damage arising out of or as a result of breach of Agreement by the other Party.



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SUSPENSION OF OPERATOR'S RIGHTS

31.1 Suspension upon Operator Default

Upon occurrence of an Operator Default, the Authority shall be entitled, without prejudice to its other rights and remedies under this Agreement including its rights of Termination hereunder, to (a) suspend all rights of the Operator under this Agreement including the Operator's right to receive the Fee, and other payments pursuant hereto, and (b) exercise such rights itself and perform the obligations hereunder or authorise any other person to exercise or perform the same on its behalf during such suspension (the "**Suspension**"). Suspension hereunder shall be effective forthwith upon issue of notice by the Authority to the Operator and may extend up to a period not exceeding 180 (one hundred and eighty) days from the date of issue of such notice.

31.2 Authority to act on behalf of Operator

- 31.2.1 During the period of Suspension, the Authority may, at its option and at the risk and cost of the Operator, remedy and rectify the cause of Suspension. The Authority shall be entitled to make deductions from the Fee for meeting the costs incurred by it for remedying and rectifying the cause of Suspension, and for defraying the expenses on Operation and Maintenance of Buses.
- 31.2.2 During the period of Suspension hereunder, all assets and liabilities in relation to the Operation and Maintenance of Buses, including the Maintenance Depots, shall continue to vest in the Operator in accordance with the provisions of this Agreement and all things done or actions taken, including expenditure incurred by the Authority for discharging the obligations of the Operator under and in accordance with this Agreement, shall be deemed to have been done or taken for and on behalf of the Operator and the Operator undertakes to indemnify the Authority for all costs incurred during such period. The Operator hereby licenses and sub-licenses respectively, the Authority or any other person authorised by it under Clause 31.1 to use during Suspension, all Intellectual Property belonging to or licensed to the Operator for and in respect of Operation and Maintenance of Buses.

31.3 Revocation of Suspension

- 31.3.1 In the event that the Authority shall have rectified or removed the cause of Suspension within a period not exceeding 90 (ninety) days from the date of Suspension, it shall revoke the Suspension forthwith and restore all rights of the Operator under this Agreement. For the avoidance of doubt, the Parties expressly agree that the Authority may, in its discretion, revoke the Suspension at any time, whether or not the cause of Suspension has been rectified or removed hereunder.
- 31.3.2 Upon the Operator having cured the Operator Default within a period not exceeding 90 (ninety) days from the date of Suspension, the Authority shall revoke the Suspension forthwith and restore all rights of the Operator under this Agreement. For the avoidance of doubt, the Authority shall provide access to the Maintenance Depots and Buses, as the case may be, to enable the Operator to cure the Operator Default hereunder.



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31.4 Termination

- 31.4.1 At any time during the period of Suspension under this Article 31, the Operator may by notice require the Authority to revoke the Suspension and issue a Termination Notice. The Authority shall, within 15 (fifteen) days of receipt of such notice, terminate this Agreement under and in accordance with Article 32 as if it is an Operator Default under Clause 32.1.
- 31.4.2 Notwithstanding anything to the contrary contained in this Agreement, and in the absence of any mutual agreement between the Parties to the contrary, in the event that Suspension is not revoked within 180 (one hundred and eighty) days from the date of Suspension hereunder, the Agreement shall, upon expiry of the aforesaid period, be deemed to have been terminated by mutual agreement of the Parties and all the provisions of this Agreement shall apply, *mutatis mutandis*, to such Termination as if a Termination Notice had been issued by the Authority upon occurrence of an Operator Default.



TERMINATION

32.1 Termination for Operator Default

- 32.1.1 Save as otherwise provided in this Agreement, in the event that any of the defaults specified below shall have occurred, and the Operator fails to cure the default within the Cure Period set forth below, or where no Cure Period is specified, then within a Cure Period of 120 (one hundred and twenty) days, the Operator shall be deemed to be in default of this Agreement (an "**Operator Default**"), unless the default has occurred as a result of any breach of this Agreement by the Authority, the Authority's Representative or due to Force Majeure. The defaults referred to herein shall mean and include the following:
 - (a) The Performance Security has been encashed and appropriated in accordance with Clause 9.2, and the Operator fails to replenish or provide fresh Performance Security, within a Cure Period of 30 (thirty) days;
 - (b) subsequent to the replenishment or furnishing of fresh Performance Security in accordance with Clause 9.2, the Operator fails to cure, within a Cure Period of 120 (one hundred and twenty) days, the Operator Default for which whole or part of the Performance Security was appropriated;
 - (c) the Operator fails to complete the Fit Out Works for the Maintenance Depots within 270 (two hundred and seventy) days from the Scheduled Maintenance Depot Completion Date, as may be extended in accordance with the terms of this Agreement;
 - (d) the Operator fails to supply the Prototype within the period specified in Clause 13.6;
 - (e) the Operator fails to procure and deliver the Buses in accordance with the Procurement Schedule and the amount of Damages payable by the Operator for such delay exceeds the maximum amount specified in Clause 13.9.2.
 - (f) the Operator is in material breach of the Maintenance Requirements or the Safety Requirements, as the case may be;
 - (g) the Operator is in breach of its obligations under Clause 19.7;
 - (h) the Operator has failed to make any payment to the Authority within the period specified in this Agreement and the Authority is unable to set-off such amounts from amounts due from it to the Operator in accordance with the terms of this Agreement;
 - (i) a failure by the Operator to achieve the Key Performance Indicators set out in Clauses
 20.2 to 20.7 such that the Damages payable by the Operator for such failure exceeds
 the maximum amount specified in Clause 20.11 in any 6 (six) consecutive months;
 - (j) a material breach of any of the Project Agreements by the Operator has caused a Material Adverse Effect on the Authority;
 - (k) the Operator creates any Encumbrance in breach of this Agreement;



- (1) the Operator repudiates this Agreement (or any part thereof) or otherwise takes any action or evidences or conveys an intention not to be bound by the Agreement (or any part thereof);
- (m) a Change in Ownership has occurred in breach of the provisions of Clause 5.3;
- (n) there is a transfer, pursuant to law either of (i) the rights and/or obligations of the Operator under any of the Project Agreements, or of (ii) all or part of the assets or undertaking of the Operator, and such transfer causes a Material Adverse Effect on the Authority;
- (o) an execution levied on any of the assets of the Operator has caused a Material Adverse Effect on the Authority;
- (p) the Operator is adjudged bankrupt or insolvent, or if a trustee or receiver is appointed for the Operator or for the whole or material part of its assets that has a material bearing on the Project;
- (q) the Operator suffers an Insolvency Event;
- (r) The Operator has been, or is in the process of being amalgamated or reconstituted in a manner that would cause, in the reasonable opinion of the Authority, a Material Adverse Effect provided that, the same shall not be considered to be an Operator Default if, as part of such amalgamation or reconstruction, the entire property, assets and undertaking of the Operator are transferred to the amalgamated or reconstructed entity and that the amalgamated or reconstructed entity has unconditionally assumed the obligations of the Operator under this Agreement and the Project Agreements; and provided that:
 - the amalgamated or reconstructed entity has the capability and operating experience necessary for the performance of its obligations under this Agreement and the Project Agreements;
 - (ii) the amalgamated or reconstructed entity has the financial standing to perform its obligations under this Agreement and the Project Agreements and has a credit worthiness at least as good as that of the Operator as at the Appointed Date; and
 - (iii) each of the Project Agreements remains in full force and effect;
- (s) any representation or warranty of the Operator herein contained which is, as of the date hereof, found to be materially false or the Operator is at any time hereafter found to be in breach thereof;
- (t) the Operator submits to the Authority any false statement, notice or other document, in written or electronic form, which has a Material Adverse Effect on the Authority;
- (u) the Operator has failed to fulfil any obligation, for which failure Termination has been specified in this Agreement; or



- (v) a Suspension of this Agreement pursuant to Clause 31 (to the extent such Suspension is directly attributable to the Operator) for a period exceeding 180 (one hundred and eighty) days;
- (w) the Operator commits a default in complying with any other provision of this Agreement if such default causes a Material Adverse Effect on the Authority and the Operator fails to cure such default in a Cure Period of 120 (one hundred and twenty) days.
- 32.1.2 Without prejudice to any other rights or remedies which the Authority may have under this Agreement, upon occurrence of an Operator Default, the Authority shall be entitled to terminate this Agreement by issuing a Termination Notice to the Operator; or where the Buses are procured by the Operator under a lease, termination of the Bus Lease Agreement(s); provided that before issuing the Termination Notice, the Authority shall by a notice inform the Operator of its intention to issue such Termination Notice and grant 15 (fifteen) days to the Operator to make a representation, and may after the expiry of such 15 (fifteen) days, whether or not it is in receipt of such representation, issue the Termination Notice subject to the provisions of Clause 32.1.3.
- 32.1.3 The Authority shall, if there be Senior Lenders, send a copy of its notice of intention to issue a Termination Notice referred to in Clause 31.4.1 to inform the Lenders' Representative and grant 15 (fifteen) days to the Lenders' Representative, for making a representation on behalf of the Senior Lenders stating the intention to substitute the Operator in accordance with the Substitution Agreement. In the event the Authority receives such representation on behalf of Senior Lenders, it shall, in its discretion, either withhold Termination for a period not exceeding 180 (one hundred and eighty) days from the date of such representative to exercise its right of Suspension, as the case may be, for enabling the Lenders' Representative to exercise the Senior Lenders' right of substitution in accordance with the Substitution Agreement:

Provided that the Lenders' Representative may, instead of exercising the Senior Lenders' right of substitution, (i) procure that the default specified in the notice is cured within the aforesaid period of 180 (one hundred and eighty) days, and upon such curing thereof, the Authority shall withdraw its notice referred to above and restore all the rights of the Operator, or (ii) issue a notice to the Authority requiring it to terminate the Agreement, and upon such notice being issued, the Authority shall, forthwith, immediately terminate this Agreement.

Provided further that upon written request from the Lenders' Representative and the Operator, the Government shall extend the aforesaid period of 180 (one hundred and eighty) days by such further period not exceeding 90 (ninety) days, as the Authority may deem appropriate.

32.2 Termination for Authority Default

32.2.1 In the event that any of the defaults specified below shall have occurred, and the Authority fails to cure such default within a Cure Period of 90 (ninety) days or such longer period as has been expressly provided in this Agreement, the Authority shall be deemed to be in default of this Agreement (the "Authority Default") unless the default has occurred as a result of any breach of this Agreement by the Operator or due to Force Majeure. The defaults referred to herein shall mean and include the following:



- (a) the Authority commits a material default in complying with any of the provisions of this Agreement and such default has a Material Adverse Effect on the Operator;
- (b) the Authority delays in approving, or issuing a notice pursuant to Clause 22.3.5(b) in respect of, an Annual Assured Payment Invoice and the Damages payable by the Authority for such delay exceeds the amount specified in Clause 22.3.6;
- (c) the Authority fails to provide the Right of Way to the Depot Sites in accordance with the terms of this Agreement;
- (d) the Authority has failed to make any payment to the Operator within the period specified in this Agreement;
- (e) an assignment by the Authority, of its rights, interests and obligations under this Agreement in contravention of Clause 35.5; or
- (f) the Authority repudiates this Agreement or otherwise takes any action that amounts to or manifests an irrevocable intention not to be bound by this Agreement.
- 32.2.2 Without prejudice to any other right or remedy which the Operator may have under this Agreement, upon occurrence of an Authority Default, the Operator shall be entitled to terminate this Agreement by issuing a Termination Notice to the Authority, with a copy to the Program Manager; provided that before issuing the Termination Notice, the Operator shall by a notice (which shall also be copied to the Program Manager) inform the Authority of its intention to issue the Termination Notice and grant 15 (fifteen) days to the Authority to make a representation, and may after the expiry of such 15 (fifteen) days, whether or not it is in receipt of such representation, issue the Termination Notice.

32.3 Termination Payment

- 32.3.1 Upon Termination on account of an Operator Default after COD, the Authority shall pay to the Operator, by way of Termination Payment, an amount equal to:
 - (a) 90% (ninety per cent) of the Debt Due less Insurance Cover; and
 - (b) 70% (seventy per cent) of the amount representing the Additional Termination Payment.

Provided that if any insurance claims forming part of the Insurance Cover are not admitted and paid, then 80% (eighty per cent) of such unpaid claims shall be included in the computation of Debt Due.

Provided further that, in computing the Termination Payment due to the Operator, the Authority shall deduct an amount equal to any Subsidy and Government Fiscal Assistance received by the Operator from the Program Manager and/or the Authority. Further, upon Termination on account of an Operator Default prior to the Lot COD of the first Lot of Buses, the Authority shall have the right to take over the Fit Out Works in progress in which case it shall pay to the Operator an amount equal to the actual capital cost of the Fit Out Works completed by the Operator up until the date of Termination as verified by an independent third party to be appointed by the Authority.



- 32.3.2 Upon Termination on account of an Authority Default at any time after the Appointed Date, the Authority shall pay to the Operator, by way of Termination Payment, an amount equal to:
 - (a) Debt Due;
 - (b) 150% (one hundred and fifty per cent) of the Adjusted Equity; and
 - (c) 115% (one hundred and fifteen per cent) of the amount representing the Additional Termination Payment.

Provided further that, in computing the Termination Payment due to the Operator, the Authority shall deduct an amount equal to any Subsidy and Government Fiscal Assistance received by the Operator from the Program Manager and/or the Authority. However, in case of termination on account of an Authority Default, the Authority shall return the Performance Security and any State Subsidy Bank Guarantees available with it at the time.

- 32.3.3 Termination Payment shall become due and payable to the Operator within 60 (sixty) days of a demand being made by the Operator to the Authority with the necessary particulars, and in the event of any delay, the Authority shall pay interest at a rate equal to 3% (three per cent above the Bank Rate on the amount of Termination Payment remaining unpaid; provided that such delay shall not exceed 90 (ninety) days of a demand being made by the Operator to the Authority with the necessary particulars; provided further that liability of the Authority to make the Termination Payment hereof is subject to the fulfilment of the Divestment Requirements in accordance with the provisions of Article 33 of this Agreement. For the avoidance of doubt, it is expressly agreed that Termination Payment shall constitute full discharge by the Authority of its payment obligations in respect thereof hereunder.
- 32.3.4 Upon Termination on expiry of the Contract Period by efflux of time, no Termination Payment shall be due and payable to the Operator; provided that in the event any Project Assets shall have been acquired and installed after the 5th (fifth) anniversary of the COD, with prior written consent of the Authority, which consent shall not be unreasonably denied, a Termination Payment equal to 80% (eighty percent) of the Adjusted Depreciated Value of such assets and equipment shall be deemed to be Debt Due for the purposes of Termination Payment. Provided that, any Project Assets acquired by the Operator without the prior written consent of the Authority shall not be taken into account when calculating the Termination Payment under this Clause 32.3.4 and such Project Assets shall remain the property of the Operator after Termination and the Operator may dispose of such Project Assets as it deems fit.
- 32.3.5 The Operator expressly agrees that Termination Payment under this Article 32 shall constitute a full and final settlement of all claims of the Operator on account of Termination of this Agreement for any reason whatsoever and that the Operator or any shareholder thereof shall not have any further right or claim under any law, treaty, convention, contract or otherwise.

32.4 Certain limitations on Termination Payment

32.4.1 Termination Payment, not being Additional Termination Payment, due and payable under this Agreement shall be limited to the Debt Due or outstanding lease payments and Adjusted Equity, as the case may be, which form part of the Total Project Cost in accordance with the provisions of this Agreement; provided that the amount payable in respect of any Debt Due expressed in foreign currency shall be computed at the Reference Exchange Rate for



conversion into the relevant foreign currency as on the date of Termination Payment. For the avoidance of doubt, it is agreed that within a period of 60 (sixty) days from COD, the Operator shall notify to the Authority, the Total Project Cost as on COD and its disaggregation between Debt Due and Equity, and only the amounts so conveyed shall form the basis of computing Termination Payment, and it is further agreed that in the event such disaggregation is not notified to the Authority, Equity shall be deemed to be the amount arrived at by subtracting Debt Due from Total Project Cost. The Parties also agree that for the purposes of computing Termination Payment, the Debt Due shall at no time exceed 70 % (seventy per cent) of the Total Project Cost.

32.4.2 The Operator may only construct, acquire or install any Specified Assets after the 5th (fifth) anniversary of COD, but before the 10th (tenth) anniversary thereof (and excluding land), with the prior written consent of the Authority and which consent shall not be unreasonably withheld by the Authority. Provided that, any Project Assets constructed, acquired or installed by the Operator without the prior written consent of the Authority shall not be taken into account when calculating any "Additional Termination Payment" due to the Operator under this Article 32 and such Project Assets shall remain the property of the Operator after Termination and the Operator may dispose of such Project Assets as it deems fit.

32.5 Other rights and obligations of the Authority

Upon Termination for any reason whatsoever, the Authority shall:

- (a) take possession and control of the Buses, provided that the Termination has occurred after COD;
- (b) take possession and control of the Maintenance Depots (including the Charging Infrastructure) forthwith;
- (c) take possession and control of all materials, stores, implements, plants and equipment on or about the Maintenance Depots;
- (d) be entitled to restrain the Operator and any person claiming through or under the Operator from entering upon the Maintenance Depots or any part of the Authority's premises;
- (e) require the Operator to comply with the Divestment Requirements set forth in Clause 33.1; and
- (f) succeed upon election by the Authority, without the necessity of any further action by the Operator, to the interests of the Operator under such of the Project Agreements as the Authority may in its discretion deem appropriate, and shall upon such election be liable to the Contractors only for compensation accruing and becoming due and payable to them under the terms of their respective Project Agreements from and after the date the Authority elects to succeed to the interests of the Operator. For the avoidance of doubt, the Operator acknowledges and agrees that all sums claimed by such Contractors as being due and owing for works and services performed or accruing on account of any act, omission or event prior to such date shall constitute debt between the Operator and such Contractors, and the Authority shall not in any manner be liable for such sums. It is further agreed that in the event the Authority elects to cure any



outstanding defaults under such Project Agreements, the amount expended by the Authority for this purpose shall be deducted from the Termination Payment.

32.6 Survival of rights

Notwithstanding anything to the contrary contained in this Agreement, but subject to the provisions of Clause 32.3.5, any Termination pursuant to the provisions of this Agreement shall be without prejudice to the accrued rights of either Party including its right to claim and recover money damages, insurance proceeds, security deposits, and other rights and remedies, which it may have in law or contract. All rights and obligations of either Party under this Agreement, including Termination Payments and Divestment Requirements, shall survive the Termination to the extent such survival is necessary for giving effect to such rights and obligations.



DIVESTMENT OF RIGHTS AND INTEREST

33.1 Divestment requirements upon expiry of the Contract Period

- 33.1.1 Upon expiry of the Contract Period, the Operator shall comply with and conform to the following divestment requirements (the "**Divestment Requirements**"), no later than 15 (fifteen) days from the date of expiry of the Contract Period:
 - (a) remove all its personnel and vacate and deliver forthwith the actual or constructive possession of the Maintenance Depots along with the infrastructure therein and any Opportunity Charging Stations, free and clear of all Encumbrances;
 - (b) cure the equipment at the Maintenance Depots, Charging Infrastructure and Opportunity Charging Stations (if applicable) of any defect or deficiency such that it can continue to be used efficiently and economically in accordance with Good Industry Practice, provided that if such defects and deficiencies have arisen on account of accidents, vandalism, arson, riot or natural calamity occurring (in each case for reasons not directly attributable to the Operator) no earlier than 120 (one hundred and twenty) days prior to the expiry of the Contract Period, the Authority shall grant to the Operator such additional time, not exceeding 240 (two hundred forty) days from the date of expiry of the Contract Period, as may be reasonably required for repair and rectification thereof;
 - (c) provide to the Authority a license or sub-license, free of any Encumbrances, with respect to all Intellectual Property pertaining to the Maintenance Depots, the Charging Infrastructure and the Opportunity Charging Stations, if any, including transferring all relevant records, reports, software and manuals, and complete 'as built' Drawings as on the Transfer Date so as to enable the Authority to operate and maintain the Maintenance Depots, the Charging Infrastructure and the Opportunity Charging Stations, and execute such deeds of conveyance, documents and other writings as the Authority may reasonably require in connection therewith. For the avoidance of doubt, the Operator represents and warrants that the Intellectual Property shall be adequate and complete for the operation and maintenance of the Maintenance Depots, the Charging Infrastructure and Opportunity Charging Stations;
 - (d) transfer and/or deliver to the Authority all Applicable Permits in respect of the Maintenance Depots, the Charging Infrastructure and Opportunity Charging Stations, if any, to the extent permissible under Applicable Laws;
 - (e) execute such deeds of conveyance, documents and other writings as the Authority may reasonably require for conveying, divesting and assigning all the rights, title and interest of the Operator in respect of the outstanding insurance claims to the extent due and payable to the Authority;
 - (f) execute such deeds of conveyance, documents and other writings as the Authority may reasonably require for conveying, divesting and assigning all the rights, title and interest of the Operator in the Maintenance Depots, the Charging Infrastructure and the Opportunity Charging Stations, if any; and



(g) comply with all other requirements as may be prescribed or required under Applicable Laws for completing the divestment and assignment of all rights, title and interest of the Operator in the Maintenance Depots, the Charging Infrastructure and the Opportunity Charging Stations, if any, and Insurance Cover, free from all Encumbrances, absolutely unto the Authority or to its nominee.

33.2 Inspection and cure

Not earlier than 90 (ninety) days prior to expiry of the Contract Period, but not later than [15 (fifteen)] days prior to the effective date of such expiry, the Authority shall verify, after giving due notice to the Operator specifying the time, date and place of such verification and/or inspection, compliance by the Operator with the Maintenance Obligations, and if required, cause appropriate tests to be carried out at the Operator's cost for this purpose. The Operator shall at its own cost and expense, cure defaults if any, in the Maintenance Obligations and the provisions of Article 32 shall apply, *mutatis mutandis*, in relation to curing of defects or deficiencies under this Article 33.

33.3 Cooperation and assistance on transfer of Maintenance Depots

- 33.3.1 The Parties shall cooperate on a best effort basis and take all necessary measures, in good faith, to achieve a smooth transfer of the assets specified in Clause 33.1.1 in accordance with the provisions of this Agreement so as to protect the safety of and avoid undue delay or inconvenience to the Users, other members of the public or the lawful occupiers of any part of the Depot Sites.
- 33.3.2 The Authority shall have the option to purchase or hire from the Operator at a fair market value and free from any Encumbrance all or any part of the plant and machinery used in connection with the Project but which does not form part of the assets specified in Clause 33.1.1 and is reasonably required in connection with operation of the Maintenance Depots. For the avoidance of doubt, in the event of Dispute or difference relating to the determination of the fair market value of such plant and machinery, the Dispute Resolution Procedure shall apply.

33.4 Divestment requirements upon termination

- 33.4.1 Upon Termination after COD and before the expiry of the Contract Period, the Operator shall comply with and conform to the following divestment requirements (the "**Divestment Requirements**"), no later than 15 (fifteen) days from the date of Termination:
 - (a) procure and deliver forthwith title to, and actual or constructive possession of the Buses and vacate and handover actual or constructive possession of the Maintenance Depots, the Charging Infrastructure and the Opportunity Charging Stations, if any, free and clear of all Encumbrances;
 - (b) cure the Maintenance Depots, all Buses, Charging Infrastructure and Opportunity Charging Stations, if any, of all defects and deficiencies so that the Maintenance Depots, Buses, Charging Infrastructure and Opportunity Charging Stations are compliant with the Maintenance Obligations; provided that if such defects and deficiencies have arisen on account of accidents, vandalism, arson, riot or natural



calamity occurring no earlier than 120 (one hundred and twenty) days prior to such Termination, the Authority shall grant to the Operator such additional time, not exceeding 240 (two hundred forty) days from the date of expiry of the Contract Period, as may be reasonably required for repair and rectification thereof;

- (c) provide to the Authority a license or sub-license, free of any Encumbrances, with respect to all Intellectual Property pertaining to the Buses, Maintenance Depots, Charging Infrastructure and Opportunity Charging Stations including transferring all relevant records, reports, software and manuals and complete 'as built' Drawings as on the Transfer Date so as to enable the Authority to operate and maintain the Buses, Maintenance Depots, Charging Infrastructure and Opportunity Charging Stations and execute such deeds of conveyance, documents and other writings as the Authority may reasonably require in connection therewith. For the avoidance of doubt, the Operator represents and warrants that the Intellectual Property shall be adequate and complete for the Operation and Maintenance of the Buses, Maintenance Depots, Charging Infrastructure and shall be assigned or licensed to the Authority free of any Encumbrance for the operational life of these assets;
- (d) transfer and/or deliver to the Authority all Applicable Permits in respect of the Buses, Maintenance Depots, Charging Infrastructure and Opportunity Charging Stations to the extent permissible under Applicable Laws;
- (e) take all necessary steps to safeguard and protect the Buses, the Charging Infrastructure, the Opportunity Charging Stations, if any, the Maintenance Depot(s) and all other equipment, materials and goods on the Depot Site;
- (f) execute such deeds of conveyance, documents and other writings as the Authority may reasonably require for conveying, divesting and assigning all the rights, title and interest of the Operator in respect of the outstanding insurance claims to the extent due and payable to the Authority;
- (g) execute such deeds of conveyance, documents and other writings as the Authority may reasonably require for conveying, divesting and assigning all the rights, title and interest of the Operator in the Buses, Maintenance Depots, Charging Infrastructure and Opportunity Charging Stations; and
- (h) comply with all other requirements as may be prescribed or required under Applicable Laws for completing the divestment and assignment of all rights, title and interest of the Operator in the Buses, Maintenance Depots, Charging Infrastructure and Opportunity Charging Stations free from all Encumbrances, absolutely unto the Authority or to its nominee.
- 33.4.2 Subject to the exercise by the Authority of its rights under this Agreement or any of the Project Agreements to perform or procure the performance by a third party of any of the obligations of the Operator, the Parties shall continue to perform their obligations under this Agreement notwithstanding the giving of any Termination Notice until the Termination of this Agreement becomes effective in accordance with its terms.
- 33.4.3 Upon Termination of this Agreement prior to the Lot COD of the First Lot of Buses, if the Authority exercises its right to take over the Fit Out Works, the Operator shall be required to handover peaceful possession of the Depot Sites and any Fit Out Works to the Authority no



later than 15 (fifteen) days from the date of Termination. If the Authority chooses not to take over the Fit Out Works, the Operator shall clear the Depot Site(s) and handover vacant, peaceful possession of the Depot Site(s) to the Authority no later than 30 (thirty) days from the date of Termination.

33.5 Vesting Certificate

The divestment of all rights, title and interest in the assets specified in Clause 33.1.1 shall be deemed to be complete on the date on which all of the Divestment Requirements have been fulfilled, and the Authority shall, without unreasonable delay, thereupon issue a certificate substantially in the form set forth in Schedule-O (the "**Vesting Certificate**"), which will have the effect of constituting evidence of divestment by the Operator of all of its rights, title and interest in such assets, and their vesting in the Authority pursuant hereto. It is expressly agreed that any defect or deficiency in the Divestment Requirements shall not in any manner be construed or interpreted as restricting the exercise of any rights by the Authority or its nominee on, or in respect of, the Buses and Maintenance Depots on the footing that all Divestment Requirements have been complied with by the Operator.

33.6 Divestment costs etc.

- 33.6.1 Upon expiry of the Contract Period, the Authority Parties shall bear and pay equally, all costs incidental to divestment of all of the rights, title and interest of the Operator in the Maintenance Depots, Charging Infrastructure and the Opportunity Charging Stations, if any, in favour of the Authority.
- 33.6.2 In the event of Termination attributable to the Operator, the Operator shall bear and pay all costs incidental to divestment of all of the rights, title and interest of the Operator in the Buses, Maintenance Depots, Charging Infrastructure and Opportunity Charging Stations, if any, in favour of the Authority upon such Termination.
- 33.6.3 In the event of Termination attributable to the Authority, the Authority shall bear and pay all costs incidental to divestment of all of the rights, title and interest of the Operator in the Buses, Maintenance Depots, Charging Infrastructure and Opportunity Charging Stations, if any, in favour of the Authority upon such Termination.
- 33.6.4 In the event of any Dispute relating to matters covered by and under this Article 33, the Dispute Resolution Procedure shall apply.



DEFECTS LIABILITY AFTER TERMINATION

34.1 Liability for defects after Termination

The Operator shall be responsible for all defects and deficiencies in the Buses, Maintenance Depots, Charging Infrastructure and Opportunity Charging Stations, if any, for a period of 180 (one hundred and eighty) days after Termination, and it shall have the obligation to repair or rectify, at its own cost, all defects and deficiencies observed by the Authority in the Buses, Maintenance Depots, Charging Infrastructure and Opportunity Charging Stations during the aforesaid period. In the event that the Operator fails to repair or rectify such defect or deficiency within a period of 15 (fifteen) days from the date of notice issued by the Authority in this behalf, the Authority shall be entitled to get the same repaired or rectified at the Operator's risk and cost. All costs incurred by the Authority hereunder shall be reimbursed by the Operator to the Authority within 15 (fifteen) days of receipt of demand thereof, and in the event of default in reimbursing such costs, the Authority shall be entitled to recover the same from the Escrow Account.

34.2 Retention in Escrow Account

- 34.2.1 Notwithstanding anything to the contrary contained in this Agreement, but subject to the provisions of Clause 34.2.3, a sum equal to 10% (ten per cent) of the total Fee in respect of the Contract Year immediately preceding the Transfer Date shall be retained by the Authority for a period of 150 (one hundred and fifty) days after Termination for meeting the liabilities, if any, arising out of or in connection with the provisions of Clause 34.1.
- 34.2.2 Without prejudice to the provisions of Clause 34.2.1, the Authority shall carry out an inspection of the Buses, Maintenance Depots, Charging Infrastructure and Opportunity Charging Stations, if any, at any time between 180 (one hundred and eighty) and 15 (fifteen) days prior to the Transfer Date and if it determines that the status of the Buses, Maintenance Depots, Charging Infrastructure or Opportunity Charging Stations is such that a sum larger than the amount stipulated in Clause 34.2.1 should be retained by the Authority and for a period longer than the aforesaid 180 (one hundred and eighty) days, the amount so determined, subject to a ceiling equivalent to twice the amount specified in Clause 34.2.1 shall be retained by the Authority for a period not exceeding 240 (two hundred and forty) days.
- 34.2.3 The Operator may, for the performance of its obligations under this Article 34, provide to the Authority a guarantee from a Bank for a sum equivalent to the amount determined under Clause 34.2.1 or 34.2.2, as the case may be, and for the period specified therein, substantially in the form set forth in Schedule-D (the "**Defects Performance Security**"), to be modified, *mutatis mutandis*, for this purpose, and the Authority shall, without prejudice to its other rights and remedies hereunder or in law, be entitled to encash and appropriate the required amounts from the Defects Performance Security for undertaking the repairs or rectification at the Operator's risk and cost in accordance with the provisions of this Article 34. Upon furnishing of a Performance Security under this Clause 34.2.3, the retention of funds in terms of Clause 34.2.1 or 34.2.2, as the case may be, shall be dispensed with.



Part VI Other Provisions



 $\begin{array}{l} \label{eq:signature::} \\ subject: CN=MAHENDRA SINGH, SERIALNUMBER=6cbeabtc6d23672f81d4da801 \\ 672244dd6ecre96fa1c207cc28d61b8, ST=DELH, OID.2.5.4.17=110003, 0 \\ ID.2.5.4.20=5e8477fb32abf996688234344cba31cbd6feb2b686c927a5e1d6b \\ 27acb4dd2r, OU=SUPPLY CHAIN MANAGEMENT, O=ENERGY EFFICIENCY SERV \\ ICES LIMITED, C=IN \\ User ID: mahendra.singh \\ Serial No: 1628840 \\ P8: mahendra.singh(Mahendra Singh23) \\ Date: 02-12-2022 \\ \end{array}$

ASSIGNMENT AND CHARGES

35.1 Ownership of Project Assets

35.1.1 The Operator shall be the legal and beneficial owner, or shall have legal and beneficial right of use, of the Project Assets during the Contract Period and up until the divestment of its rights in the Project Assets in accordance with Article 33.

35.2 Restrictions on assignment and charges

- 35.2.1 Subject to Clause 35.3, this Agreement shall not be assigned by the Operator to any person, save and except with the prior consent in writing of the Authority.
- 35.2.2 Subject to the provisions of Clause 35.3, the Operator shall not create nor permit to subsist any Encumbrance, or otherwise transfer or dispose of all or any of its rights and benefits under this Agreement or any Project Agreement to which the Operator is a party except with prior consent in writing of the Authority, which consent the Authority shall be entitled to decline without assigning any reason.

35.3 Permitted assignment and charges

The restraints set forth in Clause 35.2 shall not apply to:

- (a) liens arising by operation of law (or by an agreement evidencing the same) in the ordinary course of business of the Operator;
- (b) mortgages/pledges/hypothecation of goods/assets, and their related documents of title, arising or created in the ordinary course of business of the Operator, and as security only for indebtedness to the Senior Lenders under the Financing Agreements and/or for working capital arrangements for the Project;
- (c) assignment of rights, interest and obligations of the Operator to or in favour of the Lenders' Representative as nominee and for the benefit the Senior Lenders, to the extent covered by an in accordance with the Substitution Agreement as security for financing provided by the Senior Lenders under the Financing Agreements; and
- (d) retention of title and ownership of the Buses by the Lessors, if any;
- (e) liens or encumbrances required by any Applicable Law.
- (f) subcontracting limited to operations of the buses; and
- (g) any assignment of Insurance Policy in favour of Lenders as per the Financing Agreements.

35.4 Substitution Agreement



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- 35.4.1 The Lenders' Representative, on behalf of Senior Lenders, or Lessor(s) if any may exercise the right to substitute the Operator pursuant to the agreement for substitution of the Operator (the "Substitution Agreement") to be entered into amongst the Operator, the Authority, the Program Manager and the Lenders' Representative, on behalf of Senior Lenders, substantially in the form set forth in Schedule-R.
- 35.4.2 Upon substitution of the Operator under and in accordance with the Substitution Agreement, the Nominated Company substituting the Operator shall be deemed to be the Operator under this Agreement and shall enjoy all rights and be responsible for all obligations of the Operator under this Agreement as if it were the Operator; provided that where the Operator is in breach of this Agreement on the date of such substitution, the Authority shall by notice grant a Cure Period of 120 (one hundred and twenty) days to the Operator for curing such breach.

35.5 Assignment by the Authority

Notwithstanding anything to the contrary contained in this Agreement, the Authority may, after giving 60 (sixty) days' notice to the Operator, assign and/ or transfer any of its rights and benefits and/or obligations under this Agreement to an assignee who shall, at a minimum, have a credit rating (set by a reputed credit rating agency) that is equal to or better than that of the Authority as of the date of such assignment.



36.1 Increase in costs

If as a result of Change in Law, the Operator suffers an increase in costs or reduction in net after-tax return or other financial burden, the Operator may so notify the Authority. Upon the issuance of a notice by the Operator, the Parties shall meet, as soon as reasonably practicable but no later than 30 (thirty) days from the date of notice, and either agree on any amendments to this Agreement or on any other mutually agreed arrangement by which the Authority will compensate the Operator.

Provided that if no agreement is reached within 90 (ninety) days of the aforesaid notice, the Operator may by notice require the Authority to pay an amount that would place the Operator in the same financial position that it would have enjoyed had there been no such Change in Law, and within 15 (fifteen) days of receipt of such notice, along with particulars thereof, the Authority shall pay the amount specified therein; provided that if the Authority shall dispute such claim of the Operator, the same shall be settled in accordance with the Dispute Resolution Procedure. For the avoidance of doubt, it is agreed that this Clause 36.1 shall be restricted to changes in law directly affecting the Operator's costs of performing its obligations under this Agreement.

36.2 Reduction in costs

If as a result of Change in Law, the Operator benefits from a reduction in costs or increase in net after-tax return or other financial gains, the Authority may so notify the Operator and propose amendments to this Agreement so as to place the Operator in the same financial position as it would have enjoyed had there been no such Change in Law resulting in decreased costs, increase in return or other financial gains as aforesaid. Upon notice by the Authority, the Parties shall meet, as soon as reasonably practicable but no later than 30 (thirty) days from the date of notice, and either agree on such amendments to this Agreement or on any other mutually agreed arrangement.

Provided that if no agreement is reached within 90 (ninety) days of the aforesaid notice, the Authority may by notice require the Operator to pay an amount that would place the Operator in the same financial position that it would have enjoyed had there been no such Change in Law, and within 15 (fifteen) days of receipt of such notice, along with particulars thereof, the Operator shall pay the amount specified therein to the Authority; provided that if the Operator shall dispute such claim of the Authority, the same shall be settled in accordance with the Dispute Resolution Procedure. For the avoidance of doubt, it is agreed that this Clause 36.2 shall be restricted to changes in law directly affecting the Operator's costs of performing its obligations under this Agreement.

36.3 Protection of NPV

Pursuant to the provisions of Clauses 36.1 and 36.2 and for the purposes of placing the Operator in the same financial position as it would have enjoyed had there been no Change in Law affecting the costs, returns or other financial burden or gains, the Parties shall endeavour to establish a net present value (the "**NPV**") of the net cash flow and make necessary adjustments



in costs, revenues, compensation or other relevant parameters, as the case may be, to procure that the NPV of the net cash flow is the same as it would have been if no Change in Law had occurred. For the avoidance of doubt, the Parties expressly agree that for determination of NPV, the discount rate to be used shall be equal to the weighted average rate of interest at which the Operator has raised its debt under its Financing Agreements.

36.4 Restriction on cash compensation

The Parties acknowledge and agree that the demand for cash compensation under this Article 36 shall be restricted to the effect of Change in Law during the respective Accounting Year and shall be made at any time after commencement of such year, but no later than 1 (one) year from the close of such Accounting Year. Any demand for cash compensation payable for and in respect of any subsequent Accounting Year shall be made after the commencement of the Accounting Year to which the demand pertains, but no later than 2 (two) years from the close of such Accounting Year.



LIABILITY AND INDEMNITY

37.1 General indemnity

- 37.1.1 The Operator shall indemnify, defend, save and hold harmless the Authority and its officers, servants, agents, Government Instrumentalities and Authority owned and/or controlled entities/enterprises, (the "Authority Indemnified Persons") from and against any and all suits, proceedings, actions, demands and third party claims for any loss, damage, cost and expense of whatever kind and nature, whether arising out of any breach by the Operator of any of its obligations under this Agreement or any related agreement or on account of any defect or deficiency in the provision of goods and services by the Operator to the Authority or to any person or from any negligence of the Operator under contract or tort or on any other ground whatsoever, except to the extent that any such suits, proceedings, actions, demands and claims have arisen due to any negligent act or omission, a breach or default of this Agreement or any related agreement and/or a breach of its statutory duty on the part of the Authority Indemnified Persons.
- 37.1.2 The Authority shall indemnify, defend, save and hold harmless the Operator and its officers, servants and agents (the "**Operator Indemnified Parties**") against any and all suits, proceedings, actions, demands and third party claims for any loss, damage, cost and expense of whatever kind and nature arising out of (a) defect in title and/or the rights of the Authority in the land comprised in the Depot Sites, and/or (b) breach by the Authority of any of its obligations under this Agreement or any related agreement, which materially and adversely affect the performance by the Operator of its obligations under this Agreement, save and except that where any such claim, suit, proceeding, action, and/or demand has arisen due to a negligent act or omission, or breach of any of its obligations under any provision of this Agreement or any related agreement and/or breach of its statutory duty on the part of the Operator, its subsidiaries, affiliates, Contractors, servants or agents, the same shall be the liability of the Operator.

37.2 Indemnity by the Operator

- 37.2.1 Without limiting the generality of Clause 37.1, the Operator shall fully indemnify, hold harmless and defend the Authority and the Authority Indemnified Persons from and against any and all loss and/or damages arising out of or with respect to:
 - (a) failure of the Operator to comply with Applicable Laws and Applicable Permits;
 - (b) payment of taxes required to be made by the Operator in respect of the income or other taxes of the Operator's Contractors, suppliers and representatives; or
 - (c) non-payment of amounts due as a result of materials or services furnished to the Operator or any of its Contractors which are payable by the Operator or any of its Contractors.
- 37.2.2 Without limiting the generality of the provisions of this Article 37, the Operator shall fully indemnify, hold harmless and defend the Authority Indemnified Persons from and against any and all suits, proceedings, actions, claims, demands, liabilities and damages which the



Authority Indemnified Persons may hereafter suffer, or pay by reason of any demands, claims, suits or proceedings arising out of claims of infringement of any domestic or foreign Intellectual Property or confidentiality rights with respect to any materials, information, design or process used by the Operator or by the Operator's Contractors in performing the Operator's obligations or in any way incorporated in or related to the Project. If in any such suit, action, claim or proceedings, a temporary restraint order or preliminary injunction is granted, the Operator shall make every reasonable effort to secure the revocation or suspension of the injunction or restraint order. If, in any such suit, action, claim or proceedings, the Maintenance Depots, Buses, Charging Infrastructure or Opportunity Charging Stations, if any, as the case may be, or any part thereof or comprised therein, are held to constitute an infringement and their use is permanently enjoined, the Operator shall promptly make every reasonable effort to secure for the Authority a licence, at no cost to the Authority, authorising continued use of the infringing work. If the Operator is unable to secure such licence within a reasonable time, the Operator shall, at its own expense, and without impairing the Specifications and Standards, either replace the affected work, or part, or process thereof with non-infringing work or part or process, or modify the same so that they become non-infringing.

37.3 Notice and contest of claims

In the event that either Party receives a claim or demand from a third party in respect of which it is entitled to the benefit of an indemnity under this Article 37 (the "**Indemnified Party**") it shall notify the other Party (the "**Indemnifying Party**") within 15 (fifteen) days of receipt of the claim or demand and shall not settle or pay the claim without the prior approval of the Indemnifying Party, which approval shall not be unreasonably withheld or delayed. In the event that the Indemnifying Party wishes to contest or dispute the claim or demand, it may conduct the proceedings in the name of the Indemnified Party, subject to the Indemnified Party being secured against any costs involved, to its reasonable satisfaction.

37.4 Defence of claims

- 37.4.1 The Indemnified Party shall have the right, but not the obligation, to contest, defend and litigate any claim, action, suit or proceeding by any third party alleged or asserted against such Party in respect of, resulting from, related to or arising out of any matter for which it is entitled to be indemnified hereunder, and reasonable costs and expenses thereof shall be reimbursed by the Indemnifying Party. If the Indemnifying Party acknowledges in writing its obligation to indemnify the Indemnified Party in respect of loss to the full extent provided by this Article 37, the Indemnifying Party shall be entitled, at its option, to assume and control the defence of such claim, action, suit or proceeding, liabilities, payments and obligations at its expense and through the counsel of its choice; provided it gives prompt notice of its intention to do so to the Indemnified Party and reimburses the Indemnified Party for the reasonable cost and expenses incurred by the Indemnified Party prior to the assumption by the Indemnifying Party of such defence. The Indemnifying Party shall not be entitled to settle or compromise any claim, demand, action, suit or proceeding without the prior written consent of the Indemnified Party, unless the Indemnifying Party provides such security to the Indemnified Party as shall be reasonably required by the Indemnified Party to secure the loss to be indemnified hereunder to the extent so compromised or settled.
- 37.4.2 If the Indemnifying Party has exercised its rights under Clause 37.3, the Indemnified Party shall not be entitled to settle or compromise any claim, action, suit or proceeding without the



prior written consent of the Indemnifying Party (which consent shall not be unreasonably withheld or delayed).

- 37.4.3 If the Indemnifying Party exercises its rights under Clause 37.3, the Indemnified Party shall nevertheless have the right to employ its own counsel, and such counsel may participate in such action, but the fees and expenses of such counsel shall be at the expense of the Indemnified Party, when and as incurred, unless:
 - (a) the employment of counsel by such party has been authorised in writing by the Indemnifying Party;
 - (b) the Indemnified Party shall have reasonably concluded that there may be a conflict of interest between the Indemnifying Party and the Indemnified Party in the conduct of the defence of such action;
 - (c) the Indemnifying Party shall not, in fact, have employed independent counsel reasonably satisfactory to the Indemnified Party, to assume the defence of such action and shall have been so notified by the Indemnified Party; or
 - (d) the Indemnified Party shall have reasonably concluded and specifically notified the Indemnifying Party either:
 - (i) that there may be specific defences available to it which are different from or additional to those available to the Indemnifying Party; or
 - (ii) that such claim, action, suit or proceeding involves or could have a material adverse effect upon it beyond the scope of this Agreement:

Provided that if Sub-clauses (b), (c) or (d) of this Clause 37.4.3 shall be applicable, the counsel for the Indemnified Party shall have the right to direct the defence of such claim, demand, action, suit or proceeding on behalf of the Indemnified Party, and the reasonable fees and disbursements of such counsel shall constitute legal or other expenses hereunder.

37.5 No consequential claims

Notwithstanding anything to the contrary contained in this Article 37, the indemnities herein provided shall not include any claim or recovery in respect of any cost, expense, loss or damage of an indirect, incidental or consequential nature, including loss of profit, except as expressly provided in this Agreement.

37.6 Limitation of Liability

37.6.1 Notwithstanding anything to the contrary in this Agreement, the liability of one Party towards the other Party for any damages or compensation of any nature whatsoever under this Agreement, save and except with respect to any Termination Payment payable by the Authority in accordance with the terms of this Agreement, shall not exceed Rs. 1 crore (Rupees one crore) per Bus that is procured under this Agreement. For the avoidance of doubt, the limitation hereunder shall not apply to any or all liabilities in respect of third parties.



37.6.2 Except as otherwise provided in this Agreement, neither Party shall be liable to the other Party for any loss of profit or for any other indirect or consequential damages or losses that may be suffered in connection with this Agreement.

37.7 Survival on Termination

The provisions of this Article 37 shall survive Termination.



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RIGHTS AND TITLE OVER SITES

38.1 Operator's rights

For the purpose of this Agreement, the Operator shall have rights to the use of the Depot Sites as the sole and exclusive licensee, subject to and in accordance with this Agreement, and to this end, it may regulate the entry and use of the Depot Sites by third parties in accordance with and subject to the provisions of this Agreement.

38.2 Access rights of the Authority and others

- 38.2.1 The Operator shall allow free access to the Depot Sites at all times for the authorised representatives of the Authority and for the persons duly authorised by any Government Instrumentality to inspect the Maintenance Depots, and to investigate any matter within their authority, and upon reasonable notice, the Operator shall provide to such persons reasonable assistance necessary to carry out their respective duties and functions.
- 38.2.2 The Operator shall, for the purpose of operation and maintenance of any utility allow free access to the Depot Sites, as the case may be, at all times for the authorised persons and vehicles of the controlling body of such utility.

38.3 Property taxes

38.3.1 All property taxes on the Depot Sites shall be payable by the Authority as owner of the Depot Sites; provided, however, that any such taxes payable by the Operator under Applicable Laws for use of the Depot Sites shall not be reimbursed or payable by the Authority. For the avoidance of doubt, the Parties agree that stamp duties, if any, due and payable on the grant of licence comprising this Agreement shall be paid by the Authority. Provided, however, that the Authority may require the Operator to pay such stamp duties, which shall be reimbursed by the Authority to the Operator within 15 (fifteen) days of receiving the demand therefor.

38.4 Restriction on sub-letting

The Operator shall not sublicense or sublet the whole or any part of Depot Sites, save and except as may be expressly set forth in this Agreement; provided that nothing contained herein shall be construed or interpreted as restricting the right of the Operator to appoint Contractors for the performance of its obligations hereunder including for Operation and Maintenance of all or any part of the Depot Sites.



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DISPUTE RESOLUTION

39.1 Dispute resolution

- 39.1.1 Any dispute, difference or controversy of whatever nature howsoever arising under or out of or in relation to this Agreement (including its interpretation) between the Parties, and so notified in writing by either Party to the other Party (the "**Dispute**") shall, in the first instance, be attempted to be resolved amicably in accordance with the conciliation procedure set forth in Clause 39.2.
- 39.1.2 The Parties agree to use their best efforts for resolving all Disputes arising under or in respect of this Agreement promptly, equitably and in good faith, and further agree to provide each other with reasonable access during normal business hours to all non-privileged records, information and data pertaining to any Dispute.

39.2 Conciliation

In the event of any Dispute between the Parties, either Party may call upon a mutually accepted person to mediate and assist the Parties in arriving at an amicable settlement thereof. Failing mediation by such person or without the intervention of such person, either Party may require such Dispute to be referred to the [Chairman of ***] and the Chairman of the Board of Directors of the Operator for amicable settlement, and upon such reference, the said persons shall meet no later than 7 (seven) days from the date of reference to discuss and attempt to amicably resolve the Dispute. If such meeting does not take place within the 7 (seven) day period or the Dispute is not amicably settled within 15 (fifteen) days of the meeting or the Dispute is not resolved as evidenced by the signing of written terms of settlement within 30 (thirty) days of the notice in writing referred to in Clause 39.1.1 or such longer period as may be mutually agreed by the Parties, either Party may refer the Dispute to arbitration in accordance with the provisions of Clause 39.3.

39.3 Arbitration

- 39.3.1 Any Dispute which is not resolved amicably by conciliation, as provided in Clause 39.2, shall be finally decided by reference to arbitration by an arbitral tribunal constituted in accordance with Clause 39.3.2. Such arbitration shall be held in accordance with the provisions of the Arbitration Act. The place of such arbitration shall be [[●]]⁵, and the language of arbitration proceedings shall be English.
- 39.3.2 There shall be an arbitral tribunal comprising 3 (three) arbitrators, of whom each Party shall select 1 (one), and the third arbitrator shall be appointed by the 2 (two) arbitrators so selected, and in the event of disagreement between the two arbitrators, the appointment shall be made in accordance with the Rules.
- 39.3.3 The arbitral tribunal shall make a reasoned award (the "**Award**"). Any Award made in any arbitration held pursuant to this Article 39 shall be final and binding on the Parties as from the

⁵ Drafting Note – Insert relevant city for which the agreement pertains (i.e., the city where the buses are being deployed).



date it is made, and the Operator and the Authority agree and undertake to carry out such Award without delay.

- 39.3.4 The Operator and the Authority agree that an Award may be enforced against the Operator and/or the Authority, as the case may be, and their respective assets wherever situated.
- 39.3.5 This Agreement and the rights and obligations of the Parties shall remain in full force and effect, pending the Award in any arbitration proceedings hereunder.

39.4 Adjudication by a tribunal

In the event of constitution of a statutory tribunal or other forum with powers to adjudicate upon disputes between the Operator and the Authority, all Disputes arising after such constitution shall, instead of reference to arbitration under Clause 39.3, be adjudicated upon by such tribunal or other forum in accordance with Applicable Laws and all references to Dispute Resolution Procedure shall be construed accordingly.



ARTICLE-40 DISCLOSURE

40.1 Disclosure of Specified Documents

The Operator shall make available for inspection by any person, copies of this Agreement, the Maintenance Manual, the Operation Manual, the Safety Requirements and the Specifications and Standards (hereinafter collectively referred to as the "**Specified Documents**"), free of charge, during normal business hours on all working days at the Operator's registered office. The Operator shall prominently display at the Maintenance Depots, public notices stating the availability of the Specified Documents for such inspection and shall make copies of the same available to any person upon payment of copying charges on a 'no profit no loss' basis.

40.2 Disclosure of Documents relating to safety

The Operator shall make available for inspection by any person copies of all Documents and data relating to Safety of the Buses, free of charge, during normal business hours on all working days, at the Operator's registered office. The Operator shall make copies of the same available to any person upon payment of copying charges on a 'no profit no loss' basis.

40.3 Withholding disclosure of Protected Documents

Notwithstanding the provisions of Clauses 40.1 and 40.2, the Authority shall be entitled to direct the Operator, from time to time, to withhold the disclosure of Protected Documents (as defined herein below) to any person in pursuance of the aforesaid Clauses.

Explanation:

The expression "**Protected Documents**" shall mean such of the Specified Documents or documents referred to in Clauses 40.1 and 40.2, or portions thereof, the disclosure of which the Authority is entitled to withhold under the provisions of the Right to Information Act, 2005.



REDRESSAL OF COMPLAINTS

41.1 Complaint Register

- 41.1.1 The Operator shall keep one register (the "**Complaint Register**") in every Bus for recording of complaints by Users, and another for recording of complaints by drivers and maintenance staff.
- 41.1.2 The Complaint Register shall be securely bound, and each page thereof shall be duly numbered. It shall have appropriate columns including the complaint number, date, substance of the complaint and the action taken by the Operator.
- 41.1.3 Without prejudice to the provisions of Clauses 41.1.1 and 41.1.2, the Authority may, in consultation with the Operator, specify the procedure for making complaints in electronic form and for responses thereto.

41.2 Redressal of complaints

- 41.2.1 The Operator shall inspect the Complaint Register of every Bus before undertaking any Maintenance, as the case may be, and take prompt and reasonable action for redressal of each complaint. The action taken shall be briefly recorded by the Operator in the Complaint Register.
- 41.2.2 In the event that a complaint shall require an urgent response from the Operator, the driver of a Bus or any maintenance staff of the Authority, as the case may be, shall inform the Maintenance Depot or the Control Centre forthwith.
- 41.2.3 The Operator shall submit to the Authority, relevant extracts of the Complaint Register no later than [7 (seven)] days from the close of each month. If the Operator fails to address complaints in accordance with this Article 41, the Operator shall pay Damages equal to 0.5% (zero point five percent) 0.01% (zero point zero one percent) of the Performance Security per bus for each day of delay to rectify each of the complaints specified in the Complaint Register, to the satisfaction of the Authority.



ARTICLE-42 MISCELLANEOUS

42.1 Governing law and jurisdiction

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the courts at $[\bullet]^6$ shall have exclusive jurisdiction over matters arising out of or relating to this Agreement.

42.2 Waiver of immunity

Each Party unconditionally and irrevocably:

- (a) agrees that the execution, delivery and performance by it of this Agreement constitute commercial acts done and performed for commercial purpose;
- (b) agrees that, should any proceedings be brought against it or its assets, property or revenues in any jurisdiction in relation to this Agreement or any transaction contemplated by this Agreement, no immunity (whether by reason of sovereignty or otherwise) from such proceedings shall be claimed by or on behalf of the Party with respect to its assets;
- (c) waives any right of immunity which it or its assets, property or revenues now has, may acquire in the future or which may be attributed to it in any jurisdiction; and
- (d) consents generally in respect of the enforcement of any judgement or award against it in any such proceedings to the giving of any relief or the issue of any process in any jurisdiction in connection with such proceedings (including the making, enforcement or execution against it or in respect of any assets, property or revenues whatsoever irrespective of their use or intended use of any order or judgement that may be made or given in connection therewith).

42.3 Depreciation

For the purposes of depreciation under Applicable Laws, the property representing the capital investment made by the Operator in the Maintenance Depots shall be deemed to be acquired and owned by the Operator. For the avoidance of doubt, the Authority shall not in any manner be liable in respect of any claims for depreciation to be made by the Operator under Applicable Laws.

42.4 Delayed payments

42.4.1 The Parties hereto agree that payments due from one Party to the other Party under the provisions of this Agreement shall be made within the period set forth therein, and if no such period is specified, within 30 (thirty) days of receiving a demand along with the necessary particulars. Unless otherwise specified in this Agreement, in the event of delay beyond such period, the defaulting Party shall pay interest for the period of delay calculated at a rate equal

⁶ Drafting Note – Insert relevant city for which the agreement pertains (i.e., the city where the buses are being deployed).



to 3% (three per cent) above the Bank Rate, and recovery thereof shall be without prejudice to the rights of the Parties under this Agreement including Termination thereof.

42.4.2 Unless otherwise specified, any interest payable under this Agreement shall accrue on a daily outstanding basis and shall be compounded on the basis of quarterly rests.

42.5 Waiver

- 42.5.1 Waiver, including partial or conditional waiver, by either Party of any default by the other Party in the observance and performance of any provision of or obligations under this Agreement:
 - (a) shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions of or obligations under this Agreement;
 - (b) shall not be effective unless it is in writing and executed by a duly authorised representative of the Party; and
 - (c) shall not affect the validity or enforceability of this Agreement in any manner.
- 42.5.2 Neither the failure by either Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Agreement or any obligation thereunder nor time or other indulgence granted by a Party to the other Party shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder.

42.6 Liability for review of Documents and Drawings

Except to the extent expressly provided in this Agreement:

- (a) no review, comment or approval by the Authority of any Project Agreement, Document or Drawing submitted by the Operator nor any observation or inspection of the construction, operation or maintenance of the Project and Buses nor the failure to review, approve, comment, observe or inspect hereunder shall relieve or absolve the Operator from its obligations, duties and liabilities under this Agreement, Applicable Laws and Applicable Permits; and
- (b) the Authority shall not be liable to the Operator by reason of any review, comment, approval, observation or inspection referred to in Sub-clause (a) above.

42.7 Exclusion of implied warranties etc.

This Agreement expressly excludes any warranty, condition or other undertaking implied at law or by custom or otherwise arising out of any other agreement between the Parties or any representation by either Party not contained in a binding legal agreement executed by both Parties.

42.8 Survival



42.8.1 Termination shall:

- (a) not relieve the Operator or the Authority, as the case may be, of any obligations hereunder which expressly or by implication survive Termination hereof; and
- (b) except as otherwise provided in any provision of this Agreement expressly limiting the liability of either Party, not relieve either Party of any obligations or liabilities for loss or damage to the other Party arising out of, or caused by, acts or omissions of such Party prior to the effectiveness of such Termination or arising out of such Termination.
- 42.8.2 All rights and obligations surviving Termination shall only survive for a period of 3 (three) years following the date of such Termination; provided, however, that all obligations of the Operator in relation to licensing, sub-licensing, assignment or transfer of the specified Intellectual Property to the Authority shall survive the Termination in perpetuity.

42.9 Entire Agreement

This Agreement and the Schedules together constitute a complete and exclusive statement of the terms of the agreement between the Parties on the subject hereof, and no amendment or modification hereto shall be valid and effective unless such modification or amendment is agreed to in writing by the Parties and duly executed by persons especially empowered in this behalf by the respective Parties. All prior written or oral understandings offers or other communications of every kind pertaining to this Agreement are abrogated and withdrawn. For the avoidance of doubt, the Parties hereto agree that any obligations of the Operator arising from the Request for Qualification or Request for Proposals, as the case may be, shall be deemed to form part of this Agreement and treated as such, provided however, that if there is a contradiction or conflict between the terms of the Request for Qualification or Request for Proposals and the terms of this Agreement, the terms of this Agreement shall prevail.

42.10 Severability

If for any reason whatsoever, any provision of this Agreement is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the Parties will negotiate in good faith with a view to agreeing to one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable to such invalid, illegal or unenforceable provision. Failure to agree upon any such provisions shall not be subject to the Dispute Resolution Procedure set forth under this Agreement or otherwise.

42.11 No partnership

This Agreement shall not be interpreted or construed to create an association or partnership between the Parties, or to impose any partnership obligation or liability upon either Party, and neither Party shall have any right, power or Authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.



42.12 Third parties

This Agreement is intended solely for the benefit of the Parties, and their respective successors and permitted assigns, and nothing in this Agreement shall be construed to create any duty to, standard of care with reference to, or any liability to, any person not a Party to this Agreement.

42.13 Successors and assigns

This Agreement shall be binding upon and inure to the benefit of the Parties and their respective successors and permitted assigns.

42.14 Notices

Any notice or other communication to be given by any Party to the other Party under or in connection with the matters contemplated by this Agreement shall be in writing and shall:

- (a) in the case of the Operator, be given by facsimile or e-mail and by letter delivered by hand to the address given and marked for attention of the person set out below or to such other person as the Operator may from time to time designate by notice to the Authority; provided that notices or other communications to be given to an address outside [•]⁷ may, if they are subsequently confirmed by sending a copy thereof by registered acknowledgement due, air mail or by courier, be sent by facsimile or email to the number as the Operator may from time to time designate by notice to the Authority;
 - {Attention: Designation: Address: Fax No: Email:}
- (b) in the case of the Authority, be given by facsimile or e-mail and by letter delivered by hand at the address given below and addressed to the person named below with a copy delivered to the Authority Representative or such other person as the Authority may from time to time designate by notice to the Operator; provided that if the Operator does not have an office in $[\bullet]^8$ it may send such notice by facsimile or email and by registered acknowledgement due, air mail or by courier;
 - {Name: Designation: Address: Fax No: Email:}; and
- (c) any notice or communication by a Party to the other Party, given in accordance herewith, shall be deemed to have been delivered when in the normal course of post it

⁸ Drafting Note – Insert relevant city for which the agreement pertains (i.e., the city where the buses are being deployed).



⁷ Drafting Note – Insert relevant city for which the agreement pertains (i.e., the city where the buses are being deployed).

ought to have been delivered and in all other cases, it shall be deemed to have been delivered on the actual date and time of delivery; provided that in the case of facsimile or e-mail, it shall be deemed to have been delivered on the working day following the date of its delivery.

42.15 Language

All notices required to be given by one Party to the other Party and all other communications, Documentation and proceedings which are in any way relevant to this Agreement shall be in writing and in English language.

42.16 Counterparts

This Agreement may be executed in two counterparts, each of which, when executed and delivered, shall constitute an original of this Agreement.



ARTICLE-43 DEFINITIONS

In this Agreement, the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereinafter respectively assigned to them:

"Accounting Year" means the financial year commencing from the first day of April of any calendar year and ending on the thirty-first day of March of the next calendar year;

"Additional Auditors" shall have the meaning ascribed to it in Clause 26.2.3;

"Additional Termination Payment" means the amount payable upon Termination in respect of Specified Assets, if any, as further limited by the provisions of Clause 32.4.2;

"Adjusted Depreciated Value" means the amount arrived at after adjusting the depreciated book value of an asset (as stated in the books of account of the Operator) to reflect the variation occurring in WPI between the date of procurement thereof and the Transfer Date;

"Adjusted Equity" means the Equity funded in Indian Rupees and adjusted on the first day of the current month (the "Reference Date"), in the manner set forth below, to reflect the change in its value on account of depreciation and variations in WPI, and for any Reference Date occurring:

- (a) on or before COD, the Adjusted Equity shall be a sum equal to the Equity funded in Indian Rupees and expended on the Project, revised to the extent of one half of the variation in WPI occurring between the first day of the month of Appointed Date and the Reference Date;
- (b) from COD and until the 4th (fourth) anniversary thereof, an amount equal to the Adjusted Equity as on COD shall be deemed to be the base (the "**Base Adjusted Equity**") and the Adjusted Equity hereunder shall be a sum equal to the Base Adjusted Equity, revised at the commencement of each month following COD to the extent of variation in WPI occurring between COD and the Reference Date; and
- (c) after the 4th (fourth) anniversary of COD, the Adjusted Equity hereunder shall be a sum equal to the Base Adjusted Equity, reduced by 0.56% (zero point five six per cent)⁹ thereof at the commencement of each month following the 4th (fourth) anniversary of COD and the amount so arrived at shall be revised to the extent of variation in WPI occurring between COD and the Reference Date;

For the avoidance of doubt, the Adjusted Equity shall, in the event of Termination, be computed as on the Reference Date immediately preceding the Transfer Date; provided that no reduction in the Adjusted Equity shall be made for a period equal to the duration, if any, for which the Contract Period is extended, but the revision on account of WPI shall continue to be made;

"Affected Party" shall have the meaning as set forth in Clause 29.1;

"Agreement" or "means this Agreement, its Recitals, the Schedules hereto and any amendments thereto made in accordance with the provisions contained in this Agreement;

⁹ This number shall be substituted in each case by the figure arrived at upon dividing 100 by the number of months comprising the Contract Period. For example, the figure for a 15 (fifteen) year Contract Period shall be 100/180= 0.555 rounded off to two decimal points i.e. 0.56.



"Allowed Power Consumption" shall have the meaning as set forth in Clause 22.5.3;

"Annual Assured Bus Kilometres" shall have the meaning ascribed to it in Clause 22.3.1;

"Annual Assured Payment Amount" shall have the meaning ascribed to it in Clause 22.3.2;

"Annual Assured Payment Invoice" shall have the meaning ascribed to it in Clause 22.3.3;

"Annual Safety Report" shall have the meaning ascribed to it in Clause 18.5.1;

"Appendix" shall have the meaning as set forth in Clause 10.3.1;

"Applicable Laws" means the Constitution of India and all and any laws, enacted or brought into force and effect by the GoI, the State Government or any Government Instrumentality having jurisdiction over the Parties, the Depot Sites or the Project, including rules, regulations and notifications made thereunder, and judgements, decrees, injunctions, writs and orders of any court of record, applicable to this Agreement and the exercise, performance and discharge of the respective rights and obligations of the Parties hereunder, as may be in force and effect during the subsistence of this Agreement;

"Applicable Permits" means all clearances, licences, permits, authorisations, no objection certificates, consents, approvals and exemptions required to be obtained or maintained under Applicable Laws in connection with the construction, Operation and Maintenance of the Buses and Maintenance Depots, as the case may be, during the subsistence of this Agreement and shall include those as set out in Schedule-C;

"Appointed Date" means the date on which Financial Close is achieved and all the Condition Precedents are satisfied or waived, as the case may be, in accordance with the provisions of this Agreement, and such date shall be the date of commencement of the Contract Period;

"**Approved Valuer**" means a firm of valuers recognized as such by the Inform Tax Department and having experience of valuing at least 5 (five) properties exceeding Rs. 100 cr. (Rs. One hundred crore) each in value.

"**Arbitration Act**" means the Arbitration and Conciliation Act, 1996 and shall include modifications to or any re-enactment thereof, as in force from time to time;

"Associate" or "Affiliate" means, in relation to either Party {and/or Consortium Members}, a person who controls, is controlled by, or is under the common control with such Party {or Consortium Member} (as used in this definition, the expression "control" means, with respect to a person which is a company or corporation, the ownership, directly or indirectly, of more than 50% (fifty per cent) of the voting shares of such person, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person, whether by operation of law or by contract or otherwise);

"Assured Reliability" shall have the meaning set forth in Clause 20.2.3.

"Assured General Safety" shall have the meaning set forth in Clause 20.6.3.

"Assured Severe Safety" shall have the meaning set forth in Clause 20.6.3.



"Authority Applicable Permits" shall mean those Applicable Permits that are required to be obtained by the Authority as set out in Schedule-C;

"Authority Default" shall have the meaning set forth in Clause 32.2.1;

"Authority Indemnified Persons" shall have the meaning set forth in Clause 37.1.1;

"**Authority Nominated Personnel**" means any person authorized by the Authority to collect User Fare from passengers for using the Bus Service;

"Authority Representative" means such person or persons as may be authorised in writing by the Authority to act on its behalf under this Agreement and shall include any person or persons having Authority to exercise any rights or perform and fulfil any obligations of the Authority under this Agreement;

"Availability" shall have the meaning set forth in Clause 20.3.2;

"Award" shall have the meaning set forth in Clause 39.3.3;

"**Bank**" means a nationalised bank or a scheduled bank incorporated in India and having a minimum net worth of Rs. 1,000 crore (Rupees one thousand crore). For the avoidance of doubt, scheduled bank shall mean a bank as defined under section 2(e) of the Reserve Bank of India Act, 1934;

"**Bank Rate**" means the rate of interest specified by the Reserve Bank of India from time to time in pursuance of section 49 of the Reserve Bank of India Act, 1934 or any replacement of such Bank Rate for the time being in effect;

"**Base Index Date**" means the last date of the month which shall have closed no later than 30 (thirty) days prior to the Bid Date;

"**Bid**" means the documents in their entirety comprised in the bid submitted by the {selected bidder/Consortium} in response to the Request for Proposals in accordance with the provisions thereof and "**Bids**" shall mean the bids submitted by any and all pre-qualified bidders;

"Bid Date" means the last date on which the Bid may have been submitted in accordance with the provisions of the Request for Proposals;

"**Bid Security**" means the security provided by the Operator to the Authority along with the Bid in accordance with the Request for Proposal, and which is to remain in force until substituted by the Performance Security;

"**Breakdown**" means the mechanical failure of a bus that prevents the bus from being in operation or impedes the operation so much that it is impossible or dangerous to operate, provided that such mechanical failure has not arisen on account of any accidents, vandalism, arson, riots or natural calamities;

"**Bus**" means a bus complying with Standards and Specifications as detailed in Schedule-B, procured by the Operator as per the Procurement Schedule, for the purposes of Project;



"**Bus Lease Agreement**" means the agreement entered into between the Operator and a Lessor for leasing of the Buses to be supplied to the Authority in accordance with this Agreement.

"**Bus Kilometre**" means kilometres travelled by each Bus, as per this Agreement or as directed/approved by the Authority;

"Bus Kms Frequency" shall have the meaning as set forth in Clause 20.5.1(b);

"Bus Service" means the service provided to Users in terms of this Agreement;

"**Bus Stop**" means designated stops, along the routes from where passengers board and alight the Bus, as per the Deployment Plan at Schedule-J;

"CDM" shall have the meaning as set forth in Clause 6.1.2 (m);

"CESL" or "Program Manager" shall have the meaning set forth in Recital B;

"Change in Law" means the occurrence of any of the following after the Bid Date:

- (a) the enactment of any new Applicable Law or the imposition, adoption or issuance of any new Applicable Law by any Government Instrumentality;
- (b) the repeal, modification or re-enactment of any existing Applicable Law;
- (c) the commencement of any Applicable Law, which has not entered into effect until the Bid Date;
- (d) the introduction of a requirement for the Operator to obtain any new Applicable Permit or the unlawful revocation of an Applicable Permit;
- (e) a change in the interpretation or application of any Applicable Law, by a judgement of a court of record which has become final, conclusive and binding, as compared to such interpretation or application by a court of record prior to the Bid Date; or
- (f) any change in the rates of any of the Taxes that have a direct effect on the Agreement;

"Change in Ownership" means a transfer of the direct and/or indirect legal or beneficial ownership of any shares, or securities convertible into shares or a fresh issue of any of the foregoing, that causes the aggregate holding of the {Selected Bidder/Consortium Members}, together with {its/their} Associates in the total Equity to decline below (i) 51% (fifty one per cent) thereof till the completion of 3 (three) years from the COD and (ii) 26% (twenty six per cent) thereof, or such lower proportion as may be permitted by the Authority during the remaining Contract Period. Any direct and/or indirect transfer of legal or beneficial ownership of any shares, or securities convertible into shares, (i) such that the Consortium Members cease to collectively hold a minimum of 51% (fifty one per cent) of the subscribed and paid-up Equity of the Operator, (ii) the Lead Member cease to hold a minimum of 38% (thirty three per cent) of such Equity, or (iii) by any Consortium Member (i) who is either an original equipment manufacturer (including its Associates); or (ii) whose technical and/or financial capacity was evaluated for the purposes of selection in response to the Request for Proposal, that results, or may result, in such member ceasing to hold Equity less than; (a) 26% (twenty six per cent) of the Equity; or (b) Equity corresponding to 5% (five per cent) of the total project cost, till the expiry of the Contract Period, shall constitute a Change in Ownership;



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D : mahendra.singh No : 1628840 nahendra.singh(Mahendra Sing)45 02-12-2022 "Change of Scope" shall have the meaning as set forth in Clause 15.1;

"Change of Scope Notice" shall have the meaning set forth in Clause 15.2.1;

"Change of Scope Order" shall have the meaning set forth in Clause 15.2.3;

"**Charging Infrastructure**" means the charging infrastructure and equipment required to be installed by the Operator at the Maintenance Depots for the sole purpose of charging Buses at the Maintenance Depots, and which shall include all step-down electric and allied civil infrastructure downstream of the boundary of the Maintenance Depot, in accordance with the Specifications and Standards;

"**Commencement of Service**" means, with respect to any Bus, the date such Bus is commissioned and put in commercial operations, in each case, in accordance with the provisions of this Agreement;

"Commercial Operation Date" or "COD" shall have the meaning set forth in Clause 14.2.3;

"Completion Certificate" shall have the meaning as set forth in Clause 14.2.2;

"Complaint Register" shall have the meaning as set forth in Clause 41.1.1;

"Concession" shall have the meaning set forth in Clause 3.1.1;

"Control Centre" shall have the meaning as set forth in Clause 16.4.7;

"Conditions Precedent" shall have the meaning as set forth in Clause 4.1.1;

"Consortium" shall have the meaning as set forth in Recital (D);}

"Consumables" shall have the meaning as set forth in Clause 17.3.1;

"Contract Period" shall have the meaning as set forth in Clause 3.1.1;

"**Contract Year**" means the First Contract Year and thereafter each period of 12 (twelve) Months, provided that the last Contract Year shall end on the last day of the Contract Period.

"**Contractor**" means the person or persons, as the case may be, with whom the Operator has entered into any of the construction contracts, the O&M Contract any other material contract for the Fit Out Works, operation and/or maintenance of the Maintenance Depots, the Charging Infrastructure or the Buses, as the case may be, or matters incidental thereto, but does not include a person who has entered into an agreement for providing financial assistance to the Operator;

"Covenant" shall have the meaning as set forth in Clause 5.2.5;

"**Cure Period**" means the period specified in this Agreement for curing any breach or default of any provision of this Agreement by the Party responsible for such breach or default and shall:

- (a) commence from the date on which a notice is delivered by one Party to the other Party asking the latter to cure the breach or default specified in such notice;
- (b) not relieve any Party from liability to pay Damages or compensation under the provisions of this Agreement; and



(c) not in any way be extended by any period of Suspension under this Agreement;

provided that if the cure of any breach by the Operator requires any reasonable action by the Operator that must be approved by the Authority hereunder, the applicable Cure Period shall be extended by the period taken by the Authority to accord its approval;

"Damages" shall have the meaning as set forth in Sub-clause (y) of Clause 1.2.1;

"Data Monitoring System" shall have the meaning as set forth in Clause 19.7.

"**Debt Due**" means the aggregate of the following sums expressed in Indian Rupees outstanding on the Transfer Date:

- (a) the principal amount of the debt provided by the Senior Lenders under the Financing Agreements for financing the Total Project Cost (the "principal") but excluding any part of the principal that had fallen due for repayment 2 (two) years prior to the Transfer Date;
- (b) all accrued interest, financing fees and charges payable under the Financing Agreements on, or in respect of, the debt referred to in Sub-clause (a) above until the Transfer Date but excluding (i) any interest, fees or charges that had fallen due one year prior to the Transfer Date, (ii) any penal interest or charges payable under the Financing Agreements to any Senior Lender, and (iii) any pre-payment charges in relation to accelerated repayment of debt except where such charges have arisen due to Authority Default, provided that any accrued interest payable under the Financing Agreements on, or in respect of, the debt referred to in Sub-clause (a) in the event of Termination due to an Operator Default shall be capped at the lesser of (i) the interest rate specified in the Financing Agreements; or (ii) 5% (five percent) above the Bank Rate;
- (c) any Subordinated Debt which is included in the Financial Package and disbursed by lenders for financing the Total Project Cost; and
- (d) any debt provided by the Senior Lenders in connection with any bank guarantees submitted by the Operator to the Authority or the Program Manager pursuant to any Subsidy or Government Fiscal Assistance received by the Operator, to the extent that such bank guarantees have been called and become funded.
- (e) if the Buses are leased by the Operator, then the lease rentals for the shorter of: (i) the remaining term of the Bus Lease Agreement(s); and (ii) the balance Contract Period.

provided that if all or any part of the Debt Due is convertible into Equity at the option of Senior Lenders and/or the Operator, it shall for the purposes of this Agreement be deemed to be Debt Due even after such conversion and the principal thereof shall be dealt with as if such conversion had not been undertaken;

provided further that the Debt Due, on or after COD, shall in no case exceed 70% (seventy per cent) of the Total Project Cost.

"**Debt Service**" means the sum of all payments on account of principal, interest, financing fees and charges, Bus Lease rentals due and payable in an Accounting Year to the Senior Lenders or the Lessor(s), as the case may be, for and in respect of Debt Due under the Financing Agreements or under the Bus Lease Agreement(s), as the case may be;



"Defects Performance Security" shall have the meaning as set forth in Clause 34.2.3;

"Delay Event" shall mean:

- (i) occurrence of a Force Majeure event, provided that the requirements of Clause 29.5 have been complied with;
- (ii) a Change in Law;
- (iii) undue delay by the relevant Government Instrumentality in granting or renewing any Applicable Permit, despite the Operator having applied for such grant or renewal expeditiously and having complied with the requirements of Applicable Laws in making such application;
- (iv) undue delay by the relevant Government Instrumentality in providing any utility connection, despite the Authority or the Operator, as the case may be, having applied for such utility connection expeditiously and having complied with the requirements of Applicable Laws in making such application;
- (v) failure by the Authority to handover possession of Maintenance Depots meeting the Minimum Maintenance Depot Specifications in accordance with the requirements of this Agreement;
- (vi) any delay directly attributable to unforeseen site conditions in accordance with Clause 10.10; and
- (vii) delay caused in complying with any instructions of the Authority, which instructions are not directly attributable to any default of the Operator.

"Depot Sites" shall have the meaning as set forth in Article 10;

"Deployment Plan" shall have the meaning as set forth in Clause 16.5.1;

"**Designs**" or "**Drawings**" means all of the drawings, designs, calculations and documents pertaining to the Buses as set forth in Schedule-F;

"Design Report" shall have the meaning as set forth in Clause 13.4.2;

"Dispute" shall have the meaning as set forth in Clause 39.1.1;

"**Dispute Resolution Procedure**" means the procedure for resolution of Disputes as set forth in Article 39;

"**Divestment Requirements**" means the obligations of the Operator for and in respect of Termination as set forth in Clause 33.1.1;

"**Document**" or "**Documentation**" means documentation in printed or written form, or in tapes, discs, drawings, computer programmes, writings, reports, photographs, films, cassettes, or expressed in any other written, electronic, audio or visual form;

"EESL" shall have the meaning set forth in Recital A



"**Emergency**" means a condition or situation that is likely to endanger the environment or lives or security of the individuals on or about the Maintenance Depots or Buses, as the case may be, or which poses an immediate threat of material damage to any of the Project Assets;

"**Encumbrances**" means, in relation to the Licensed Premises, Maintenance Depots or Buses and, as the case may be, any encumbrances such as mortgage, charge, pledge, lien, hypothecation, security interest, assignment, privilege or priority of any kind having the effect of security or other such obligations, and shall include any designation of loss payees or beneficiaries or any similar arrangement under any insurance policy pertaining to the Maintenance Depots or Buses, as the case may be, where applicable herein;

"**Equity**" means the sum expressed in Indian Rupees representing the paid up equity share capital of the Operator for meeting the equity component of the Total Project Cost, and for the purposes of this Agreement shall include convertible instruments or other similar forms of capital, which shall compulsorily convert into equity share capital of the Operator, and any interest-free funds advanced by any shareholder of the Operator for meeting such equity component.

"Escrow Account" means an account which the Authority shall open and maintain with the Escrow Bank in which all inflows and outflows of cash on account of capital and revenue receipts and expenditures shall be credited and debited, as the case may be, in accordance with the provisions of this Agreement, and includes the sub-accounts of such Escrow Account;

"Escrow Agreement" shall have the meaning set forth in Clause 27.1.2;

"Escrow Bank" shall have the meaning set forth in Clause 27.1.1;

"Escrow Default" shall have the meaning set forth in Schedule-M;

"Fee" shall have the meaning set forth in Clause 22.1;

"Fee Revision Date" means the date of Fee Revision in accordance with Clause 22.4.1;

"Financial Aggregator" means any entity including its associates with the intent and capability of providing capital/funds for the e-bus business eligible as per eligibility and qualifications criteria set forth in Request for Proposals under the project;

"**Financial Close**" means the fulfilment of all Conditions Precedent to the initial availability of funds under the Financing Agreements or the Bus Lease Agreement(s);

"**Financial Model**" means the financial model adopted by Senior Lenders, setting forth the capital and operating costs of the Project and revenues therefrom on the basis of which financial viability of the Project has been determined by the Senior Lenders or the Lessor under the Bus Lease Agreement(s), and includes a description of the assumptions and parameters used for making calculations and projections therein;

"**Financial Package**" means the financing package indicating the total capital cost of the Project and the means of financing thereof, as set forth in the Financial Model and approved by the Senior Lenders, and includes Equity, all financial assistance specified in the Financing Agreements, Subordinated Debt, lease rentals and other financial terms of lease under the Bus Lease Agreement(s) if any;

"Financing Agreements" means the agreements executed by the Operator in respect of financial assistance to be provided by the Senior Lenders by way of loans, guarantees, subscription to



nonconvertible debentures and other debt instruments including loan agreements, guarantees, notes, debentures, bonds and other debt instruments, security agreements, and other documents relating to the financing (including refinancing) of the Total Project Cost, and includes amendments or modifications made in accordance with Clause 5.2.3;

"**First Contract Year**" means the period of 12 (twelve) calendar months commencing from the date on which the Lot COD for the first Lot of Buses procured by the Operator is achieved.

"**Fit Out Works**" means all works and things required to be undertaken by the Operator to completely fit out, equip and otherwise complete the Maintenance Depots in accordance with this Agreement, including the provision of all service equipment, tools, tackles, facilities, civil and electrical works and any other allied infrastructure (including the Charging Infrastructure) as may be required to Operate and Maintain the Buses, the Maintenance Depot and the Charging Infrastructure;

"Force Majeure" or "Force Majeure Event" shall have the meaning ascribed to it in Clause 29.1;

"Force Majeure Costs" shall have the meaning as set forth in Clause 29.7.2;

"GoI" means the Government of India;

"Good Industry Practice" means the practices, methods, techniques, designs, standards, skills, diligence, efficiency, reliability and prudence which are generally and reasonably expected from a reasonably skilled and experienced operator engaged in the same type of undertaking as envisaged under this Agreement and which would be expected to result in the performance of its obligations by the Operator in accordance with this Agreement, Applicable Laws and Applicable Permits in reliable, safe, economical and efficient manner;

"Government Fiscal Assistance" means, any financial assistance provided to the Operator by any Government Instrumentality, under any Applicable Laws or any scheme, policy or guidelines, as may be applicable;

"Government Instrumentality" means any department, division or sub-division of the Government of India or the State Government and includes any commission, board, Authority, agency or municipal and other local authority or statutory body, including Panchayat, under the control of the Government of India or the State Government, as the case may be, and having jurisdiction over all or any part of the Buses or Maintenance Depots as the case may be, or the performance of all or any of the services or obligations of the Operator under or pursuant to this Agreement;

"Guaranteed Availability" shall have the meaning set forth in Clause 20.3.3;

"Guaranteed Arrival Punctuality" shall have the meaning set forth in Clause 20.4.4;

"Guaranteed Bus Kms Frequency" shall have the meaning set forth in Clause 20.5.2;

"Guaranteed Start Punctuality" shall have the meaning set forth in Clause 20.4.4;

"Guaranteed Trip Frequency" shall have the meaning set forth in Clause 20.5.2;

"Indemnified Party" means the Party entitled to the benefit of an indemnity pursuant to Article 37;

"Indemnifying Party" means the Party obligated to indemnify the other Party pursuant to Article 37;



"Indirect Political Event" shall have the meaning as set forth in Clause 29.3;

"Insolvency Event" in respect of a Party means:

- (a) such Party has (A) applied for or consented to the appointment of, or the taking of possession by, a receiver, custodian, trustee, administrator, liquidator or the like of itself or of all or a substantial part of its assets or business; (B) been unable to pay its debts as such debts become due; (C) enters into a compromise arrangement with its creditors; (D) an attachment or restraint has been levied on the assets of such entity Party which materially affects such Party's ability to perform its obligations under this Agreement; (E) commenced proceedings under the (Indian) Insolvency and Bankruptcy Code, 2016 ("Code"); (F) filed a petition seeking to take advantage of any other law relating to bankruptcy, insolvency, reorganization, winding up, or composition or readjustment of debts; or (G) taken any corporate or other action for the purpose of effecting any of the foregoing; or
- (b) a proceeding or case has been commenced without the application or consent of such Party in any court of competent jurisdiction seeking (A) its liquidation, reorganization, dissolution or winding-up or the composition or readjustment of debts or, (B) the appointment of an insolvency resolution professional, a trustee, receiver, custodian, administrator, liquidator or the like of such Party under the Code and an order admitting the insolvency petition has been passed in such proceeding and such order has not been stayed or dismissed within a period of [90 (ninety)] days or (C) directions with the same or similar effect happen under the provisions of the Companies Act, 1965 or the Companies Act, 2013 or the Code in relation to the winding up of the company;

"**Insurance Cover**" means the aggregate of the maximum sums insured under the insurances taken out by the Operator pursuant to Article 25, and includes all insurances required to be taken out by the Operator under Clause 25.2 but not actually taken, and when used in the context of any act or event, it shall mean the aggregate of the maximum sums insured and payable or deemed to be insured and payable in relation to such act or event;

"**Intellectual Property**" means all patents, trademarks, service marks, logos, get-up, trade names, internet domain names, rights in designs, blue prints, programmes and manuals, drawings, copyright (including rights in computer software), database rights, semi-conductor, topography rights, geographical indicators, utility models, rights in know-how and other intellectual property rights, in each case whether registered or unregistered and including applications for registration, and all rights or forms of protection having equivalent or similar effect anywhere in the world;

"Intelligent Transport Systems" or "ITS" shall have the meaning as set forth in Clause 16.4.7;

"Invoice" shall have the meaning as set forth in Clause 22.2.1;

"Invoice Amount" shall have the meaning as set forth in Clause 22.2.2;

"Key Performance Indicators" shall have the meaning as set forth in Clause 20.1;

"LOA" or "Letter of Award" means the letter of award referred to in Recital (E);

"Lead Member" shall mean the lead member of the Consortium, and in the event there is no Consortium, the Selected Bidder;



"Lenders' Representative" means the person duly authorised by the Senior Lenders to act for and on behalf of the Senior Lenders with regard to matters arising out of or in relation to this Agreement, and includes his successors, assigns and substitutes;

"Lessor" means the manufacturer or owner of the Buses or any other Person who provides the Buses on lease to the Operator for supply to the Authority in accordance with this Agreement.

"Licensed Premises" shall have the meaning set forth in Clause 10.2.2;

"Lot(s)" means the Buses procured, by the Operator, in lots as per the Procurement Schedule;

"Lot Commercial Operation Date" or "Lot COD" shall have the meaning set forth in Clause 14.2.3;

"**Maintenance Depots**" shall mean the bus depots and/or terminals to be handed over by the Authority to the Operator for the Buses at the Depot Sites specified in Schedule-A, in accordance with the Minimum Maintenance Depot Specifications, Applicable Laws and Good Industry Practices;

"Maintenance Depot Completion Certificate" shall have the meaning as set forth in Clause 12.5.4;

"Maintenance Depot Completion Date" means the date on which the Completion Certificate is issued under the provisions of Article 14;

"Maintenance Inspection Report" shall have the meaning as set forth in Clause 19.3;

"Maintenance Manual" shall have the meaning ascribed to it in Clause 17.2.1;

"Maintenance Obligations" shall have the meaning as set forth in Clause 17.1.1;

"Maintenance Requirements" shall have the meaning as set forth in Clause 17.4;

"Material Adverse Effect" means a material adverse effect of any act or event on the ability of either Party to perform any of its obligations under and in accordance with the provisions of this Agreement and which act or event causes a material financial burden or loss to either Party;

"Minimum Escrow Balance" shall have the meaning as set forth in Clause 27.1.3;

"Minimum Maintenance Depot Specifications" means the minimum specifications and standards according to which the Maintenance Depots are required to be designed, constructed and completed prior to its handover by the Authority to the Operator in accordance with the requirements of this Agreement, as set forth in Schedule [\bullet].

"**Monthly Fees**" shall mean the Fees payable to the Operator for each month after commencement of the Bus Services and which shall be calculated in accordance with Article 22;

"**MW**" means minimum wages (skilled category) as notified by the relevant Government Instrumentality in accordance with Applicable Laws.

"Non-Political Event" shall have the meaning as set forth in Clause 29.2;



"**Nominated Company**" means a company, incorporated under the provisions of the Companies Act, 1956, or the Companies Act, 2013, as the case may be, selected by the Operator, and proposed to the Authority for assignment/transfer of the Agreement;

"NPV" shall have the meaning as set forth in Clause 36.3;

"Operation and Maintenance" or "O&M" means operation and maintenance of the Buses, the Maintenance Depot and the Charging Infrastructure, as the case may be, and includes all matters connected with or incidental to such maintenance, and provision of services and facilities in accordance with the provisions of this Agreement;

"O&M Contract" means the maintenance contract that may be entered into between the Operator and the O&M Contractor for performance of all or any of the O&M obligations;

"**O&M Contractor**" means the person, if any, with whom the Operator has entered into an O&M Contract for discharging O&M obligations for and on behalf of the Operator;

"O&M Expenses" means expenses incurred by or on behalf of the Operator or by the Authority, as the case may be, for all O&M including (a) cost of salaries and other compensation to employees, (b) cost of materials, supplies, utilities and other services, (c) premia for insurance, (d) all taxes, duties, cess and fees due and payable for O&M, (e) all repair, replacement, reconstruction, reinstatement, improvement and maintenance costs, (f) payments required to be made under any other contract in connection with or incidental to O&M, and (g) all other expenditure required to be incurred under Applicable Laws, Applicable Permits or this Agreement;

"Operation Manual" shall have the meaning as set forth in Clause 16.3.1;

"**Operational Infractions**" shall mean those events, incidents or circumstances of sub-optimal performance and/or non-compliance with the Operations and Maintenance requirements in this Agreement which are as set out in Schedule-T.

"Operational Route" shall have the meaning as set forth in Clause 16.4.1;

"**Operator Applicable Permits**" shall mean those Applicable Permits that are required to be obtained by the Operator as set out in Schedule-C;

"Operator Default" shall have the meaning as set forth in Clause 32.1.1;

"Operator Indemnified Parties" shall have the meaning as set forth in Clause 37.1.2;

"Opportunity Charging Stations" shall have the meaning as set forth in Clause 16.4.8;

"Overnight Charge" or "Overnight Charging" means, with respect to each Bus, the ability to fully charge the battery of such Bus from full discharge, between the time such Bus is scheduled to arrive at the Maintenance Depot after completing its operations on any day and the time such Bus is next scheduled to commence operations (which may be on the immediately next day), in each case in accordance with the Deployment Plan.

"Panel of Chartered Accountants" shall have the meaning set forth in Clause 26.2.1;



"**Parties**" means the parties to this Agreement collectively and "**Party**" shall mean any of the parties to this Agreement individually;

"Passenger Charter" shall have the meaning as set forth in Clause 20.10;

"Performance Security" shall have the meaning as set forth in Clause 9.1.1;

"PK Fee" shall have the meaning as set forth in Clause 22.1.2;

"**PKM**" or "**Passenger Kilometres**" means the cumulative distance travelled by Users on the Buses in a day;

"Political Event" shall have the meaning as set forth in Clause 29.4;

"**Procurement Schedule**" shall mean the schedule according to which the Operator shall procure and deliver the Buses in accordance with the terms of this Agreement and as set out in Schedule-J;

"**Project**" means the supply, operation and maintenance of Buses and the Fit Out Works, operation and maintenance of the Maintenance Depots in accordance with the provisions of this Agreement, and includes all works, services and equipment relating to or in respect of the Scope of the Agreement;

"**Project Agreements**" means this Agreement, construction contracts, supply contracts, O&M Contract, the Bus Lease Agreement and any other material agreements or contracts that may be entered into by the Operator with any person in connection with matters relating to, arising out of or incidental to this Agreement, but does not include any agreement for goods and services for the Maintenance Depots;

"**Project Assets**" means all physical and other assets relating to and forming part of the Depot Sites and Maintenance Depots, including:

- (a) rights over the Licensed Premises in the form of licence, Right of Way or otherwise;
- (b) tangible assets such as civil works and equipment including foundations, embankments, electrical systems, communication systems and administrative offices;
- (c) all rights of the Operator under the Project Agreements;
- (d) financial assets, such as receivables, security deposits etc.;
- (e) insurance proceeds; and
- (f) Applicable Permits and authorisations relating to or in respect of the Project;

"Project Milestones" means the project milestones set forth in Schedule-E;

"Protected Documents" shall have the meaning as set forth in Clause 40.3;

"Prototype" shall have the meaning as set forth in Clause 13.4.1;

"Provisional Maintenance Manual" shall have the meaning as set forth in Clause 17.2.1;



"Provisional Operation Manual" shall have the meaning as set forth in Clause 16.3.1;

"**Punch List**" shall have the meaning set forth in Clause 14.1.5;

"Re.", "Rs." or "Rupees" or "Indian Rupees" means the lawful currency of the Republic of India;

"Real Estate Development" shall have the meaning set forth in Annex-II;

"Reliability" shall have the meaning as set forth in Clause 20.2.1;

"**Reference Exchange Rate**" means, in respect of any one currency that is to be converted into another currency in accordance with the provisions of this Agreement, the exchange rate as of 12.00 (twelve) noon on the relevant date quoted in Delhi by the State Bank of India, and in the absence of such rate, the average of similar rates quoted in Delhi by the Bank of India and the Bank of Baroda;

"**Reference Index Date**" for and in respect of a Year, means the last date of the month which shall have closed no later than 30 (thirty) days prior to commencement of that Year;

"Request for Proposals" or "RFP" shall have the meaning as set forth in Recital (E);

"Request for Qualification" or "RFQ" shall have the meaning as set forth in Recital (D);

"Revision of Fee" shall have the meaning set forth in Clause 22.4.1;

"Right of Way" means the constructive possession of the Depot Sites, together with all way leaves, easements, unrestricted access and other rights of way, howsoever described, necessary for construction, operation and maintenance of the Maintenance Depots [and Real Estate Development]¹⁰, in accordance with this Agreement;

"Safety" means general safety and severe safety;

"Safety Requirements" shall have the meaning as set forth in Clause 18.1;

"Scheduled COD" shall have the meaning set forth in Clause 14.3;

"Scheduled CP Satisfaction Date" shall have the meaning set forth in Clause 4.2(a);

"Scheduled Maintenance" shall have the meaning as set forth in Clause 17.2.2;

"Scheduled Maintenance Depot Completion Date" shall have the meaning set forth in Clause 12.5.1;

"Scope of the Agreement" shall have the meaning as set forth in Clause 2.1;

"Selected Bidder" shall have the meaning as set forth in Recital (F);

"Senior Lenders" means the financial institutions, banks, multilateral lending agencies, trusts, funds and agents or trustees of debenture holders, including their successors and assignees or lessors in case of leasing of assets, who have agreed to guarantee or provide finance to the Operator under any of the

¹⁰ Drafting Note – To be deleted if Real Estate Development is not included.



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D : mahendra.singh No : 1628840 1ahendra.singh(Mahendra Singh55 02-12-2022 Financing Agreements for meeting all or any part of the Total Project Cost and who hold *pari passu* charge on the assets, rights, title and interests of the Operator;

"Spares" shall have the meaning as set forth in Clause 17.3.2;

"**Specifications and Standards**" means the specifications and standards relating to the quality, quantity, capacity and other requirements for the Buses and Maintenance Depots, as set forth in Schedule-B, and any modifications thereof, or additions thereto, as included in the design and engineering for the Buses submitted by the Operator to, and expressly approved by, the Authority;

"**Specified Assets**" means and includes such of the Project Assets which are constructed, acquired or installed after the [5th (fifth)] anniversary of COD, but before the [10th (tenth)] anniversary thereof; and but shall in no case include land.

"Specified Documents" shall have the meaning as set forth in Clause 40.1;

"Start Punctuality" shall have the meaning as set forth in Clause 20.4.1;

"State" means the State of [●] and

"State Government" means the government of [•];

"State Subsidy Bank Guarantee" shall have the meaning as set forth in Clause 22.6.3;

"**Statutory Auditors**" means a reputable firm of chartered accountants acting as the statutory auditors of the Operator under the provisions of the Companies Act, 2013 including any re-enactment or amendment thereof, for the time being in force;

"**Subordinated Debt**" means the aggregate of the following sums expressed in Indian Rupees or in the currency of debt, as the case may be, outstanding as on the Transfer Date:

- (a) the principal amount of debt provided by lenders or the Operator's shareholders for meeting the Total Project Cost and subordinated to the financial assistance provided by the Senior Lenders; and
- (b) all accrued interest on the debt referred to in Sub-clause (a) above but restricted to the lesser of actual interest rate and a rate equal to 5% (five per cent) above the Bank Rate in case of loans expressed in Indian Rupees and lesser of the actual interest rate and six-month LIBOR (London Inter Bank Offer Rate) plus 2% (two per cent) in case of loans expressed in foreign currency, but does not include any interest that had fallen due one year prior to the Transfer Date;

provided that if all or any part of the Subordinated Debt is convertible into Equity at the option of the lenders and/or the Operator's shareholders, it shall for the purposes of this Agreement be deemed to be Subordinated Debt even after such conversion and the principal thereof shall be dealt with as if such conversion had not been undertaken;

"Substitution Agreement" shall have the meaning as set forth in Clause 35.4.1;

"Suspension" shall have the meaning as set forth in Clause 31.1;



"**Taxes**" means any Indian taxes including the goods and services tax, excise duties, customs duties, value added tax, sales tax, local taxes, cess and any impost or surcharge of like nature (whether Central, State or local) on the goods, materials, equipment and services incorporated in and forming part of the Project, which are charged, levied or imposed by any Government Instrumentality, but excluding any interest, penalties and other sums in relation thereto imposed on any account whatsoever. For the avoidance of doubt, Taxes shall not include taxes on corporate income;

"Termination" means the termination of this Agreement in accordance with its terms;

"**Termination Notice**" means the communication issued in accordance with this Agreement by one Party to the other Party terminating this Agreement;

"**Termination Payment**" means the amount payable by the Authority under and in accordance with the provisions of this Agreement, upon Termination and includes Additional Termination Payment. For the avoidance of doubt, it is expressly agreed that the amount payable shall be subject to the limitations specified in Clause 32.3;

"**Tests**" means the tests as set forth in Schedule-H to determine the conformity of Buses with the provisions of this Agreement;

"Total Project Cost" means the capital cost incurred on construction and financing of the Project, excluding Real Estate Development, and shall be limited to the lowest of:

(a) the capital cost* of the project as set forth in the Financial Package;

(b) the actual capital cost of the Project upon completion;

(c) a sum of Rs. ***** crore (Rupees ***** crore);

*Capital cost calculated at 50% of the PK fee quoted by the bidder at Net Present Value (NPV) of Net Present Value (NPV) of all futurepayments, using total minimum assuredrun in kilometers per mo nth and total contract period, cost of the bus will be calculated using 10.5 % discount rate, to be compounded on monthly basis. This will be calculated using the following formula.

Capital cost =
$$\frac{a}{r}(1-\frac{1}{(1+r)^n})$$

Where,

a - Monthly equal payment for Capital Cost

= 0.5 * L1 GCC Rate * Assured monthly Kilometre run

- r Monthly discount rate in decimals
- n Contract Period in months

provided that in the event of Termination, the Total Project Cost shall be deemed to be modified to the extent of variation in WPI or Reference Exchange Rate occurring in respect of Adjusted Equity and Debt Due, as the case may be, in accordance with the provisions of this Agreement; provided further that in the event WPI increases, on an average, by more than 6% (six per cent) per annum for the period between the date hereof and COD, the Parties shall meet, as soon as reasonably practicable, and agree upon revision of the amount hereinbefore specified such that the effect of increase in WPI, in excess of such 6% (six per cent), is reflected in the Total Project Cost. For the avoidance of doubt, it is agreed that Total Project Cost shall not include the cost of Specified Assets.

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"Total Scheduled Bus Kilometres" shall have the meaning as set forth in Schedule-J;

"Training Obligations" shall have the meaning as set forth in Clause 23.1;

"**Transfer Date**" means the date of completion of the services under this Agreement or termination of the Agreement by a Termination Notice;

"Trip Frequency" shall have the meaning as set forth in Clause 20.5.1;

"Unscheduled Maintenance" shall have the meaning as set forth in Clause 17.2.4;

"Unsubsidised Buses" shall have the meaning as set forth in Clause 22.6.2;

"User" means a person who uses or intends to use the Buses on payment of User Fare or in accordance with the provisions of this Agreement and Applicable Laws;

"User Fare" means the fare payable by users for traveling on the Bus;

"Vesting Certificate" shall have the meaning as set forth in Clause 33.5.

"**WPI**" means the Wholesale Price Index for all commodities as published by the Ministry of Industry, GoI and shall include any index which substitutes the WPI, and any reference to WPI shall, unless the context otherwise requires, be construed as a reference to the WPI published for the period ending with the preceding month.

IN WITNESS WHEREOF THE PARTIES HAVE EXECUTED AND DELIVERD THIS AGREEMENT AS OF THE DAY, MONTH AND YEAR FIRST ABOVE WRITTEN.

SIGNED, SEALED AND DELIVERED For and on behalf of

THE COMMON SEAL OF OPERATOR has been affixed pursuant to the resolution passed by the



THE AUTHORITY by:

Board of Directors of the Operator at its meeting held on theday of 20...... hereunto affixed in the presence of Director, who has signed these presents in token thereof and Company Secretary / Authorised Officer who has countersigned the same in token thereof[£]:

(Signature) (Name) (Designation) (Address) (Fax No.) (E-mail Address)

In the presence of: 1.

(Signature) (Name) (Designation) (Address) (Fax No.) (E-mail Address)

2.



Signature:-Subject: CCN=MAHENDRA SINGH, SERIALNUMBER=6cbeabfc6d23672f81d4da80 672244d66e72e96fa1c207cc28d61b8, ST=DELHI, OID.2.5.4.17=110003, O ID.2.5.4.20=5e8477fb32a199666824344cba31cdbfdeb26686297a5e1d6b 27acb4dd2fc, OI=SUPPLY CHAIN MANAGEMENT, O=ENERGY EFFICIENCY SERV ICES LIMITED, C=IN User ID : mahendra.singh Serial No: 162B840 PB : mahendra.singh(Mahendra Sin1659 Date: 02-12-2022

 $[\]frac{1}{2}$ To be affixed in accordance with the articles of association of the Operator and the resolution passed by its Board of Directors

SCHEDULES

SCHEDULE-A

SITE OF THE MAINTENANCE DEPOT

(See Clause 10.1)

1 The Depot Site

- 1.1 Depot Site shall include the land described in Annex-I of this Schedule-A.
- 1.2 An inventory of the Site including the land, buildings, structures, road works, trees and any other immovable property on, or attached to the Site shall be prepared jointly by the Authority Representative and the Operator, and such inventory shall form part of the memorandum referred to in Clause 10.3.1 of the Agreement.



Annex - I Site of the Depot

[•]

Note: Through suitable Drawings and description in words, the land comprising the Site shall be specified briefly but precisely. In the event there are any buildings or structures on the Site, the same shall be marked in the Drawings and briefly described in words.



USE CONTRACTOR CONTRAC

[Annex-II Real Estate Development]



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[Annex - III Funded Works (See Clause 12.6) [●]

Note: Briefly but precisely list the work to be included in Funded Works along with the lump sum amount of capital cost of each of the listed works.]



SCHEDULE-B

SPECIFICATIONS AND STANDARDS

(See Clause 12.5.1)

- The Operator shall comply with the Bus Specifications (including specifications for ITS) set forth in Volume 3 – Technical Specifications for Type-I buses, BRTS, Type II and Type-III buses Annex—I of this Schedule–B for procurement of Buses.
- 2. Latest bus specifications, currently [Urban Bus Specifications II issued by Ministry of Urban Development, GoI in April 2013, the AIS 052 Bus Body Code issued by the Automotive Research Association of India ("ARAI") in 2015, and the Central Motor Vehicles Rules, 1989], should be followed unless changes are specified to this schedule by the Authority.
- 3. Subject to the provisions of this Schedule, procurement of Bus shall conform to Applicable Laws and the latest bus specifications published by Ministry of Urban Development, GoI. An authenticated copy of the latest bus specifications has been provided to the Operator as part of the RFP.
- 4. Deviations from the aforesaid bus specifications shall be listed out here. Such deviations shall be specified only if they are considered essential in view of project-specific requirements.



SCHEDULE-C

APPLICABLE PERMITS

(See Clause 4.1.3)

I. The following permits shall be obtained by the Operator:

1. For Buses

- (a) Commercial Vehicle Permit
- (b) Certificate of Registration of Buses
- (c) Certificate of Fitness
- (d) Bus Insurance
- (e) Customs Clearance Certificate (if needed)

2. For Maintenance Depot

Any civil and electricial work executed by the operator to support operations and maintenance of buses is required to be submitted to the Authority for approval. Post the approval of the Authority, the operator is required to identify the applicable permits required for execution of the works and fitments. The operator will be required to complete the applicable permission from the concerned state and local authorities with support in documentation and submission from the Authority. The cost of applicable permits is to be borne by the Operator.

- (a) Permits for Building Plan in accordance with the applicable State Act and by-laws
- (b) Fire safety clearance from Fire Department
- (c) Insurance for Depot, Electrical & Civil Infrastructure and other Authority owned assets
- (d) Customs Clearance Certificate for any testing or maintenance equipment (if needed)
- (e) Permission of State Government for extraction of boulders from quarry
- (f) Permission of Pollution Control Board for installation of crushers
- (g) Permission of State Government for drawing water from nearby river/reservoir (if needed)
- (h) Clearance of Pollution Control Board for installation of diesel generator sets
- (i) Permission of State Government for cutting of trees
- (j) License for use of explosives (if needed)
- (k) License from Inspector of factories or other competent authority for setting up of Batch Plant (if needed)
- (1) Clearance of Pollution Control Board for Asphalt Plant (if needed)
- (m) Any other permits or clearances required under Applicable Laws

II. The following permits shall be procured by the Authority:

- 1. No Objection Certificate from State Transport Department or RTA or from State Transport Undertaking as applicable
- 2. Fare Notification
- 3. Stage Carriage Permit
- 4. Conductor's License
- 5. Applicable Environment Clearance from State Government



SCHEDULE-D

PERFORMANCE SECURITY

(See Clause 9.1)

Government of,

WHEREAS:

A. The Governor of [•], acting through {......}, [•], and having its head office at {.....} (hereinafter referred to as the "Authority" or, which expression shall, unless excluded by and/or repugnant to the context, mean and include its successors, legal representatives and permitted assigns) of the one part;

AND

{***** Limited}, having its registered office at {.....} represented through its ***** (hereinafter referred to as the "**Operator**", which expression shall, unless it be repugnant or contrary to the subject or context thereof, be deemed to mean and include its legal representatives, successors and permitted assigns) of the other part.

The Authority and the Operator are hereinafter collectively referred to as the "**Parties**" and individually as a "**Party**".

NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:

- 1. The Bank hereby unconditionally and irrevocably guarantees the due and faithful performance of the Operator's obligations during the Agreement Period, under and in accordance with the Agreement, and agrees and undertakes to pay to the Authority, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Operator, such sum or sums up to an aggregate sum of the Guarantee Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.
- 2. A letter from the Authority, under the hand of an Officer not below the rank of the, that the Operator has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Authority shall be the sole judge as to whether the Operator is in default in due and faithful performance of its obligations during the Agreement Period under the Agreement and its decision that the Operator is in default shall be final, and binding on the



Bank, notwithstanding any differences between the Authority and the Operator, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Operator for any reason whatsoever.

- 3. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Operator and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
- 4. It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Operator before presenting to the Bank its demand under this Guarantee.
- 5. The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfilment and/ or performance of all or any of the obligations of the Operator contained in the Agreement or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Authority against the Operator, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Operator or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this duarantee and the Bank hereby waives all of its rights under any such law.
- 6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Operator for the fulfilment, compliance and/or performance of all or any of the obligations of the Operator under the Agreement.
- 7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force until a period of 30 (thirty) days beyond the Contract Period and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee, no later than 3 (three) months from the date of expiry of this Guarantee, all rights of the Authority under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.
- 8. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.
- 9. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred Branch, which shall be deemed to have been duly authorised to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.
- 10. This Guarantee shall come into force with immediate effect and shall remain in force and effect until the 30 (thirty) days from the expiry of the Contract Period or until it is released earlier by the Authority pursuant to the provisions of the Agreement.



Signed and sealed this day of , 20 at

SIGNED, SEALED AND DELIVERED For and on behalf of the BANK by: (Signature) (Name) (Designation) (Code Number)

(Address) NOTES:

- i. The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
- ii. The address, telephone number and other details of the Head Office of the Bank as well as of issuing Branch should be mentioned on the covering letter of issuing Branch.



SCHEDULE-E

MAINTENANCE DEPOT COMPLETION SCHEDULE

(See Clause 12.5.1)

1. Completion Schedule

During Construction Period, the Operator shall comply with the requirements set forth in this Schedule-E for each of the Project Milestones and Scheduled Maintenance Depot Completion Date (the "**Maintenance Depot Completion Schedule**"). Within 15 (fifteen) days of the date of each Project Milestone, the Operator shall notify the Authority of such compliance along with necessary particulars thereof.

- **2.** The completion timeline of the following essential components, *inter alia*, of construction of Maintenance Depot shall be periodically reviewed by the Authority:
 - (a) Structural Work
 - (b) Electrical Work
 - (c) IT/Telecom system
 - (d) Fire safety system
 - (e) Water supply system
 - (f) Drainage system

3. Scheduled Maintenance Depot Completion Date

The Scheduled Completion Date shall occur on the [180th (one hundred and eightieth)] day from the Appointed Date. On or before the Scheduled Maintenance Depot Completion Date, the Operator shall have completed the Maintenance Depot in accordance with this Agreement.

4. Extension of period

Upon extension of any or all of the aforesaid Project Milestones or the Scheduled Maintenance Depot Completion Date, as the case may be, under and in accordance with the provisions of this Agreement, the Maintenance Depot Completion Schedule shall be deemed to have been amended accordingly.



SCHEDULE-F

DESIGN AND DRAWINGS

(See Clause 12.4)

1 Designs and Drawings

- 1.1 In compliance of the obligations set forth in Clause 13.4 of this Agreement, the Operator shall furnish to the Authority, free of cost, all Designs and Drawings listed in Annex-I of this Schedule-F; provided that the Designs and Drawings relevant for design review by the Government as specified in Clause 13.4.2, shall be submitted prior to such review.
- 1.2 For the purposes hereof, Design shall mean and include plans and Drawings of the Buses or sub-system or equipment thereof. Provided that the Operator may share only details regarding the layout of the bus and not any other propriety information.
- 1.3 All Designs shall include maintenance and service manual of the respective sub-systems.
- 1.4 All Designs and Drawings shall be supplied in hard copy, in duplicate, and in electronic form. All Drawings shall be provided in auto-cad format.
- 1.5 All Designs and Drawings shall conform to and refer to the relevant provisions in the Specifications and Standards.
- 1.6 All Designs and Drawings shall be in English.

2 Additional Designs and Drawings

If the Authority determines that for discharging its duties and functions under this Agreement, it requires any Designs or Drawings other than those listed in Annex – I, it may by notice require the Operator to prepare and furnish such Designs and Drawings forthwith. Upon receiving a requisition to this effect, the Operator shall promptly prepare and furnish such Designs and Drawings to the Authority, as if such Designs and Drawings formed part of Annex – I of this Schedule F.]

3 Bus Designs and Drawings

In compliance with the requirement under Clause 13.4.1, the Operator shall provide the following Designs and Drawings:

- (i) General schematic Drawings
- (ii) Bus offer drawing attached Layout
- (iii) Front, rear and both side views of the offered design of the Bus



SCHEDULE-G

PROCUREMENT SCHEDULE

(See Clause 13.3)

Sr. No.	Lot No.	Type of Bus	Number of Buses	Expected date of receipt of Buses from the Appointed Date	Expected date of achieving Readiness for Commencement of Bus Service
	1			Appointed Date + [insert number of days for delivery of 1 st Lot of Buses]	Appointed Date + [insert number of days for delivery of 1 st Lot of Buses] + [45 (forty five) days]
	2			Appointed Date + [insert number of days for delivery of 2 nd Lot of Buses]	Appointed Date + [insert number of days for delivery of 2 nd Lot of Buses] + [45 (forty five) days]
	3			Appointed Date + [insert number of days for delivery of 3 rd Lot of Buses]	Appointed Date + [insert number of days for delivery of 3 rd Lot of Buses] + [45 (forty five) days]



SCHEDULE-H

TESTS

(See Clause 13.5)

1 Tests

- 1.1 Save and except as otherwise provided in this Agreement, the Operator shall conduct, or cause to be conducted, each of the Tests specified in this Schedule-H.
- 1.2 The Authority shall conduct, or cause to be conducted, adequate trial runs of Prototypes to determine their compliance with Specifications and Standards, requirements and Safety Requirements.
- 1.3 Tests to be conducted on the Prototype or its sub-systems, as the case may be, (the "**Type Tests**") have been specified in Annex-I of this Schedule-H and routine tests to be carried out on all Buses (the "**Routine Tests**") have been specified in Annex-II of this Schedule-H.
- 1.4 The Operator shall provide the results of all Tests to the Authority for review and comments, if any.

2 Schedule for Tests

- 2.1 The Operator shall, not later than [•] weeks prior to the likely date of conducting a Type Test, notify the Authority of its intent to conduct the Test and furnish particulars of the equipment and methodology forming part of the Test.
- 2.2 The Operator shall notify the Authority of its intent to conduct the Type Test, referred to in paragraph 2.1 above, at any time after [●] days from the date of such notice. The notice shall specify the place, date and time of such Test. Upon receipt of such notice, the Authority may, within [●] days of such notice, designate its representative to witness the Test. The Operator shall, whether or not an Authority Representative is designated, conduct the Test in accordance with Article 13 and this Schedule-H.
- 2.3 The Authority may at any time designate its representative to witness any Routine Test on a Bus and the Operator shall, upon receipt of a notice to this effect, undertake such Routine Test on a mutually agreed date, and in the presence of the Authority Representative.

3 Agency for conducting Tests

Save and except as otherwise specified, all Tests set forth in this Schedule-H shall be conducted by the Operator or such other agency or person as it may specify in consultation with the Authority.

4 Tests for Safety certification

Tests for determining the conformity of a Bus with the Safety Requirements shall be conducted in accordance with Good Industry Practice and in conformity with Applicable Laws.

5 Acceptance certificate

Upon successful completion of Tests, the Authority shall issue an Acceptance Certificate for the Prototype in accordance with the provisions of Article 13.



Annex - I Type Tests

S. No.	Applicable Tests	Standard / Regulation
1	Gradeability	AIS 003 & AIS 049
2	Pass by noise	IS 3028 & AIS 049
3	Coast Down Test	IS 14785 & AIS 049
4	Brake, Base line (Part – 3)	IS 11852 & AIS 049
5	Brake static (Part - 4)	IS 11852 & AIS 049
6	Construction and Functional safety requirements	AIS 038
7	Electrical energy consumption	AIS 039
8	Range Test	AIS 040
9	Net Power and Max 30 min power test	AIS 041
10	Safety requirements of Traction batteries	AIS 048
11	EMC	AIS 004 (Part 3) & AIS 049

In addition to the standard Type Tests of ARAI, the following tests shall be conducted for the buses:



Annex - II Routine Tests

[Routine Tests under this Agreement shall include the list of routine tests determined by Government Instrumentality including ARAI from time to time.]



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SCHEDULE-I

OPERATION AND MAINTENANCE REQUIREMENTS

(See Clause 16.1.1 and Clause 17.4)

Bus repair and maintenance generally calls for following activities amongst others at varying intervals / periodicity / Km operated by each bus, requirements varying with bus make, model, etc.:

- (a) Daily washing and cleaning of buses.
- (b) Periodic inspections and rectifications as required.
- (c) Preventive Maintenance as prescribed by Bus Manufacturer in form of maintenance schedules at certain time intervals / Km plied - such maintenance generally varies with period / Km plied by various subsystems of a Bus. As an example periodicity of some such maintenance schedules and main activities therein are illustrated as under:
 - (i) Daily maintenance fuel, oils / lubricants, coolant, air pressure, air inflation, loose fasteners, fitments etc. check, top up, tighten, as required.
 - (ii) Monthly / bi-monthly [•] /[•] Km operation All activities of earlier schedules and tyre condition necessary for corrective / preventive actions.
 - (iii) Quarterly [•] Km operation All activities of earlier schedules and brake system maintenance including but not limited to inspection, servicing, brake lining change / replacement, servicing of other brake system items, greasing etc.; vehicle electrical, lighting, alignment, etc.
 - (iv) Six monthly [•] Km All activities of above schedules, and activities related to steering, axles, transmission, tyres, drive line, etc.
 - (v) Yearly [•] Km All above activities and full checking / inspection of bus chassis, bus bodies and their fitments, and taking necessary corrective / preventive actions.
 - (vi) Bi-annual / annual Certification of road worthiness of buses Initial periodicity being after two years for up to certain age then annually.
 - (vii) Replacement of in-use bus aggregates at about Mean Time Between Failures (MTBF) to prevent failures and consequent costs and inconvenience.
- (d) Running repairs upon driver complaints/ report etc.
- (e) Break down repairs on-site of Bus failures.
- (f) Towing of failed Bus to a depot workshop and repairing the bus failures.
- (g) Accidental vehicles' towing and or repairs.
- (h) Preparation of buses for periodic roadworthiness certification which includes all types of denting / painting of bus bodies / bus body items and operational functionality of chassis items and the bus as a whole.
- Bus body and related items repairs / replacements etc. on the basis of periodic inspections / crew reports / general presentation aspects / operational problems reported by commuters / any other stake holders, etc.
- (j) Major repairs /calibrations of bus aggregates such as gear box, rear axle etc.
- (k) Replacement of failed aggregates with new / serviceable ones.
- (1) Removal, dismantling, repairing, assembling and re-fitment of tyres and rims to buses.
- (m) Repair, replacement of electrical, electronic, ITS, lighting, etc. items, subsystems etc.
- (n) Removal, replacement of items failing due to operational wear and tear, such as brake and clutch lining, etc.
- (o) Repair / replacement of seats, upholstery; cleaning, dusting and washing upholstery.
- (p) Denting / painting of buses as per requirement.
- (q) Reconditioning of Bus aggregates such as transmission, axles, steering system, electrical, etc.
- (r) Retrieval of spare parts during / for above processes.
- (s) Repair and re-treading of tyres / repair of tubes.



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- (t) Major accidental repair of buses including chassis, bus body and related items.
- (u) Acquisition, storage, inventory management, distribution, scrapping and disposal of spares / items / materials / vehicles etc.
- (v) Any other activity related to operation and maintenance of buses.
- (w) Infrastructure and other requirements for repair and maintenance functions of Bus, such as:
 - (i) Bus depot duly equipped with requisite plant and equipment, machinery, tools, jigs and fixtures, etc.
 - (ii) Other facilities as under:
 - A. Washing facilities complete with washing machine, water storage and treatment facilities, etc.,
 - B. Charging infrastructure,
 - C. Service pits / ramps etc.,
 - D. Painting facilities,
 - E. Welding electric arc and oxy-acetylene gas based,
 - F. Tyre repair facilities,
 - G. Air compressor and air inflation facilities,
 - H. Utilities, administrative, accounts, stores, and other related facilities, and
 - I. Breakdown van / recovery / towing vehicle etc.
 - (iii) Operator Control Centre facilities duly equipped with microprocessors, communications and other related facilities.
 - (iv) Trained staff for various trades and shifts of work.
 - (v) Documents, schedules, manuals etc. for maintenance activities; specifications of spares, etc.



SCHEDULE-J

DEPLOYMENT PLAN

(See Clause 16.5)

The Deployment Plan should include list of Operational Routes including schedule of buses, description of bus stops frequencies, headway, number of Buses to be deployed on each Route, and any other information the Authority intends to include.¹¹

Route Number	From	Via	То	Span of Operations	Number of Buses	Headway	List of Bus Stops

Aditionally, the Authority is require to present detailed bus operations schedule including details such as trip start time, trip end time, trip length, staff breaks and shift changes and other details to the operator to 120 days prior to the COD of the first lot of buses to ensure planning and installation of chargers and allied downstream charging infrastructure for the operations of the provided schedules.

¹¹ The number of Users in the Bus should not exceed 4 (four) persons during non-peak hours and 6 (six) persons during peak hours per square metre of the floor space available for use by passengers inside a Bus to ensure that the Operator can meet its KPIs accordingly.



SCHEDULE-K

SAFETY REQUIREMENTS

(See Clause 18.1)

1. General Safety Requirements

- 1.1 The Operator shall be responsible for all safety matters related to the performance of the Project and shall manage on behalf of the Authority all safety requirements related to the Bus Service in accordance with all Applicable Laws.
- 1.2 The Operator shall bear full responsibility for the safety of the Bus Service throughout the Contract Period in accordance with the Contract.
- 1.3 Without prejudice to the Operator's obligation to ensure the safety of the Bus Service, the Operator shall:
 - (a) comply with Applicable Laws;
 - (b) provide all appropriate measures in the providing Bus Service and maintenance of the Project Facilities to ensure, so far as reasonably practicable, the safety of all passengers, contractors, staff and the general public;
 - (c) consult with Authority and adopt the requirements of the emergency services;
 - (d) take particular care to ensure safety for all passengers at accesses and exits, while waiting, boarding or alighting and when moving along the Buses; and
 - (e) have due regard for the safety of third parties, in particular pedestrians and other road users, in the operation and maintenance of Project Facilities.

2. Safety Planning

2.1 The Operator shall participate in any safety and emergency planning forum together with relevant third parties, which shall include, as a minimum, the Authority and the emergency services. This forum will consider and agree the safety matters and safety risks presented by the Project, consult relevant internal and external stakeholders and examine these risks in a thorough manner and plan the appropriate contingencies.

3. Safety Management

3.1 The Operator shall develop safety procedures for the Project and shall implement the safety procedures throughout the Contract Period.

4. Applicable Laws

- 4.1 The Operator shall, after prior consultation with the Authority, implement all alterations to the Bus Service which are required by any Applicable Laws which comes into force after the Effective Date relating to safety.
- 4.2 The Operator shall comply and shall procure that Sub-Contractors shall comply with the requirements of all relevant Government Authorities.

5. **Response to Emergencies**

- 5.1 The Operator shall react safely and quickly to emergencies in all aspects of the Project.
- 5.2 The Operator shall co-operate with relevant Fire Services, Police, and any other Government Instrumentalities wherever necessary.



- 5.3 The Operator shall develop an Emergency Management Plan that sets out its predetermined actions to providing a response to a major crisis or emergency occurring at Maintenance Depots, and en-Route Buses (the "**Emergency Management Plan**").
- 5.4 In developing the Emergency Management Plan, the Operator shall consult with all relevant Government Instrumentalities, emergency services and local authorities.
- 5.5 All personnel designated to carry out specific responsibilities under the Emergency Management Plan are expected to know and understand the policies and procedures outlined in the Plan. The response to any major crisis or disturbance shall always be conducted within the framework of the Plan.
- 5.6 The Operator shall ensure that all staff are given clear instructions in line with the Emergency Management Plan, including training to deliver public address announcements in a way that avoids causing alarm and that instils confidence in passengers that the matter is under control.

6. Reporting of Incidents

6.1 The Operator shall comply with all Applicable Laws relating to the reporting of accidents, incidents, fatalities, injuries, and dangerous occurrences. The Operator shall liaise with the Authority in relation to the reporting of any incident and the future measures to be taken to prevent the recurrence thereof.



SCHEDULE-L

MAINTENANCE DEPOTS EQUIPMENT

(See Clause 17.1)

The operator shall install the following list of equipment to ensure majority of the periodic and unscheduled maintenance activities are carried out at the maintenance depots. The equipment required to be installed at the depot must include the list of equipment provided below. The list is inclusive and not exhaustive and operator shall install additional tools/equipment to ensure maintenance activities of the bus may be undertaken at the depots.

S. No.	Equipment		
1.	Depot yard lighting - high mast type, search lights, etc.		
2.	Fully automatic three brushes bus washing machine with simultaneous chassis and wheel washing arrangement and complete with waste water treatment and recycling system		
3.	[Effluent Treatment Plant (ETP)] (if not already available at depot)		
4.	Heavy duty vacuum cleaner		
5.	Fire safety equipment set		
6.	Air compressor		
7.	Paint booth complete with environment control, paint drying system, etc.		
8.	Lathe machine complete with general tools, jigs and fixtures		
9.	Radial drilling machine		
10.	Brake drum turning / re-boring machine		
11.	Hydraulic press		
12.	Brake efficiency assessment system		
13.	Wheel alignment		
14.	Head light beam aligner		
15.	Grease pump (Air operated)		
16.	Hand held grease pump		
17.	Pedestal mounted and portable digital, with auto cut-off, tire inflation system		
18.	Nitrogen tire inflation		
19.	Tire - wheel rim dismantling and assembling system / tyre changer		
20.	Wheel balancing equipment		
21.	Auto electrical test bench		



22.	AC gas charger with AC gas cylinders		
23.	Battery charger auto cut-off system		
24.	Battery tester		
25.	Multi-function tester		
26.	Hydraulic jack		
27.	Hydraulic pallet trolley		
28.	Battery operated forklift truck		
29.	Break down relief van		
30.	Power cutter		
31.	Pneumatic impact tools kit		
32.	Portable electric welding machine		
33.	Portable gas welding machine		
34.	Full set of hand tools, including torque wrench, measuring instruments, gauges		
35.	Riveting tools, hand drills, riveting guns / equipment		
36.	Sheet metal / tubing / structural items cutting, forming facilities / equipment; plywood and upholstery cutting and fabrication facilities		
37.	Work benches, bench vices. Hand drills, jigs and fixtures, clamping devices,		
39.	Washing pumps with guns		

Additionally, the operator shall set up administrative and training facilities at the maintenance depots for monitoring of operations, staff training and resting facilities and incident management at the depots.

S. No	Equipment
1.	 Storage facilities for: new materials, spares, aggregates, tyres, oils and lubricants repairable as above scrapped and disposable items as above
2.	Vehicles for transportation of materials, stores and spares
3.	Basic Operator Control Centre equipment including those related to IT, ITS, communication, display, etc hardware and software
4.	Simulators for driver training
5.	Capacity building /training facilities and equipment
6.	Complete set of workmen cupboards, rest room facilities



7.	Office furniture, cup boards, all other office requirements		
8.	All utilities- phones, fax, mobile phones, printers, etc. for workshop and other offices		
9.	Vehicles for officers, checking, attending to alerts /emergencies		
10.	Safety and security equipment / facilities		
11.	Water cooler with water filter / purifier		
12	Desktops and laptops, printers, related hard ware and software		



SCHEDULE-M

ESCROW AGREEMENT

(See Clause 27.1)

THIS ESCROW AGREEMENT is entered into on this the day of 20.....

AMONGST

- 1 Limited, a company incorporated under the provisions of the Companies Act, 2013 and having its registered office at (hereinafter referred to as the "**Operator**" which expression shall, unless repugnant to the context or meaning thereof, include its successors, permitted assigns and substitutes);
- 3 (name and particulars of the Escrow Bank) and having its registered office at (hereinafter referred to as the "**Escrow Bank**" which expression shall, unless repugnant to the context or meaning thereof, include its successors and substitutes); and
- 4 The Governor of *****, represented by [**** and having its principal offices at *****] (hereinafter referred to as the "**Authority**" which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns).

WHEREAS:

- (A) The Authority has entered into a Supply cum Operation and Maintenance Agreement dated with the Operator (the "SCOM Agreement") for operation of Buses on build, own, operate and transfer basis ("BOOT"), and a copy of which is annexed hereto and marked as Annex-A to form part of this Agreement.
- (B) Senior Lenders have agreed to finance the Project in accordance with the terms and conditions set forth in the Financing Agreements.
- (C) The SCOM Agreement requires the Operator to establish an Escrow Account, *inter alia*, on the terms and conditions stated therein.

NOW THEREFORE, in consideration of the foregoing and the respective covenants and agreements set forth in this Agreement, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the Parties agree as follows:

1 DEFINITIONS AND INTERPRETATION

1.1 Definitions



In this Agreement, the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereinafter respectively assigned to them:

"Agreement" means this Escrow Agreement and any amendment thereto made in accordance with the provisions contained herein;

"**Contract**" means the Supply cum Operation and Maintenance Agreement referred to in Recital (C) above and annexed hereto as Annex-A, and shall include all of its Recitals and Schedules and any amendments made thereto in accordance with the provisions contained in this behalf therein;

"**Cure Period**" means the period specified in this Agreement for curing any breach or default of any provision of this Agreement by the Operator or the Authority, as the case may be and shall commence from the date on which a notice is delivered by the Authority or Operator, to the Operator or the Authority, as the case may be, with either the Operator or the Authority asking the other Party to cure the breach or default specified in such notice;

"Escrow Account" means an escrow account established in terms of and under this Agreement, and shall include the Sub-Accounts;

"Escrow Default" shall have the meaning ascribed thereto in Clause 6.1;

"**Parties**" means the parties to this Agreement collectively and "Party shall mean any of the Parties to this Agreement individually;

"**Payment Date**" means, in relation to any payment specified in Clause 4.1, the date(s) specified for such payment; and

"**Sub-Accounts**" means the respective Sub-Accounts of the Escrow Account, into which the monies specified in Clause 4.1 would be credited every month and paid out if due, and if not due in a month then appropriated proportionately in such month and retained in the respective Sub Accounts and paid out therefrom on the Payment Date(s).

1.2 Interpretation

- 1.2.1 The words and expressions beginning with capital letters and defined in this Agreement shall have the meaning ascribed thereto herein, and the words and expressions used in this Agreement and not defined herein but defined in the Contract shall, unless repugnant to the context, have the meaning ascribed thereto in the Contract.
- 1.2.2 References to Clauses are, unless stated otherwise, references to Clauses of this Agreement.
- 1.2.3 The rules of interpretation stated in Clauses 1.2, 1.3 and 1.4 of the Contract shall apply, *mutatis mutandis*, to this Agreement.

2 ESCROW ACCOUNT

2.1 Escrow Bank to act as trustee

2.1.1 The Operator hereby appoints the Escrow Bank to act as trustee for the Authority, Lenders' Representative and the Operator in connection herewith and authorises the Escrow Bank to exercise such rights, powers, authorities and discretion as are specifically delegated to the Escrow Bank by the



terms hereof together with all such rights, powers, authorities and discretion as are reasonably incidental hereto, and the Escrow Bank accepts such appointment pursuant to the terms hereof.

2.1.2 The Operator hereby declares that all rights, title and interest in and to the Escrow Account shall be vested in the Escrow Bank and held in trust for the Authority, Lenders' Representative and the Operator, and applied in accordance with the terms of this Agreement. No person other than the Authority, Lenders' Representative and the Operator shall have any rights hereunder as the beneficiaries of, or as third party beneficiaries under this Agreement.

2.2 Acceptance of Escrow Bank

The Escrow Bank hereby agrees to act as such and to accept all payments and other amounts to be delivered to and held by the Escrow Bank pursuant to the provisions of this Agreement. The Escrow Bank shall hold and safeguard the Escrow Account during the term of this

Agreement and shall treat the amount in the Escrow Account as monies deposited by the Operator or the Senior Lenders' or the Authority with the Escrow Bank. In performing its functions and duties under this Agreement, the Escrow Bank shall act in trust for the benefit of, and as agent for, the Authority, Lenders' Representative and the Operator or their nominees, successors or assigns, in accordance with the provisions of this Agreement.

2.3 Establishment and operation of Escrow Account

- 2.3.2 The Escrow Bank shall maintain the Escrow Account in accordance with the terms of this Agreement and its usual practices and applicable regulations and pay the maximum rate of interest payable to similar customers on the balance in the said account from time to time.
- 2.3.3 The Escrow Bank and the Operator shall, after consultation with the Lenders' Representative and the Authority agree on the detailed mandates, terms and conditions, and operating procedures for the Escrow Account, but in the event of any conflict or inconsistency between this Agreement and such mandates, terms and conditions, or procedures, this Agreement shall prevail.

2.4 Escrow Bank's fee

The Escrow Bank shall be entitled to receive its fee and expenses in an amount, and at such times, as may be agreed between the Parties. Such fee and expenses shall be appropriated from the Escrow Account in accordance with Clause 4.1.

2.5 **Rights of the parties**

The rights of the Authority, Lenders' Representative and the Operator in the monies held in the Escrow Account are set forth in their entirety in this Agreement and the Authority, Lenders' Representative and the Operator shall have no other rights against or to the monies in the Escrow Account.

2.6 Substitution of the Operator

The Parties hereto acknowledge and agree that upon substitution of the Operator with the Nominated Company, pursuant to the Substitution Agreement, it shall be deemed for the purposes of this



Agreement that the Nominated Company is a Party hereto and the Nominated Company shall accordingly be deemed to have succeeded to the rights and obligations of the Operator under this Agreement on and with effect from the date of substitution of the Operator with the Nominated Company.

3 DEPOSITS INTO ESCROW ACCOUNT

3.1 Deposit by the Authority

- 3.1.1 The Authority agrees and undertakes that it shall deposit into and/or credit the Escrow Account with;
 - (a) Fee in accordance with Article 22 of the Contract wherein the Authority shall at all times throughout the Contract Period maintain in the Escrow Account, a balance of at least an amount equivalent to {2 (two)} months' estimated Fee;
 - (b) Any other monies disbursed by the Authority to the Operator;
 - (c) Damages payable to the Operator;
 - (d) Termination Payments.

3.2. Deposits by the Operator

- 3.2.1 The Operator agrees and undertakes that it shall deposit into and/or credit the Escrow Account with:
 - (a) all monies received in relation to the Project from any source, including the Senior
 - (b) Lenders, lenders of Subordinated Debt and the Operator;
 - (c) all funds received by the Operator from its shareholders, in any manner or form;
 - (d) any other revenues, rentals, deposits or capital receipts, as the case may be, from or in respect of the Project; and
 - (e) all proceeds received pursuant to any insurance claims.
- 3.2.2. The Operator may at any time make deposits of its other funds into the Escrow Account, provided that the provisions of this Agreement shall apply to such deposits.

3.3. Deposits by Senior Lenders

The Lenders' Representative agrees, confirms and undertakes that the Senior Lenders shall deposit into and/or credit the Escrow Account with all disbursements made by them in relation to or in respect of the Project; provided that notwithstanding anything to the contrary contained in this Agreement, the Senior Lenders shall be entitled to make direct payments to the Contractors under and in accordance with the express provisions contained in this behalf in the Financing Agreements.

3.2 Interest on deposits

The Escrow Bank agrees and undertakes that all interest accruing on the balances of the Escrow Account shall be credited to the Escrow Account; provided that the Escrow Bank shall be entitled to appropriate therefrom the fee and expenses due to it from the Authority in relation to the Escrow Account and credit the balance remaining to the Escrow Account.

4 WITHDRAWALS FROM ESCROW ACCOUNT

4.1 Withdrawals during Contract Period



- 4.1.1 At the beginning of every month, or at such intervals as the Authority may by written instructions determine, the Escrow Bank shall withdraw amounts from the Escrow Account and appropriate them in the following order by depositing such amounts in the relevant Sub Accounts for making due payments, and if such payments are not due in any month, then retain such monies in such Sub-Accounts and pay out therefrom on the Payment Date(s):
 - (a) All payments towards taxes and other statutory levies, payable by the Operator for and in respect of the Project;
 - (b) all payments relating to construction of the Maintenance Depot and procurement of Buses, subject to and in accordance with the conditions, if any, set forth in the Financing Agreements;
 - (c) O&M Expenses, subject to the ceiling, if any, set forth in the Financing Agreements;
 - (d) O&M Expenses incurred by the Authority, provided it certifies to the Escrow Bank that it had incurred such expenses in accordance with the provisions of the SCOM Agreement and that the amounts claimed are due to it from the Operator;
 - (e) monthly proportionate provision of Debt Service due in an Accounting Year;
 - (e) all payments and Damages certified by the Authority as due and payable to it by the Operator pursuant to the SCOM Agreement;
 - (g) monthly proportional provision of Debt Service payments due in an Accounting Year in respect of Subordinated Debt;
 - (h) any reserve requirements set forth in the Financing Agreements; and (i) balance, if any, in accordance with the instructions of the Operator.
- 4.1.2 No later than 60 (sixty) days prior to the commencement of each Accounting Year, the Operator shall provide to the Escrow Bank, with prior written approval of the Lenders' Representative, details of the amounts likely to be required for each of the payment obligations set forth in this Clause 4.1; provided that such amounts may be subsequently modified, with prior written approval of the Lenders' Representative, if fresh information received during the course of the year makes such modification necessary.

4.2 Withdrawals upon Termination

Upon Termination of the Contract, all amounts standing to the credit of the Escrow Account shall, notwithstanding anything in this Agreement, shall be appropriated in the following order:

- (a) all taxes due and payable by the Operator for and in respect of the Project;
- (b) 90% (ninety per cent) of Debt Due excluding Subordinated Debt;
- (b) all payments and Damages certified by the Authority as due and payable to it by the Operator pursuant to the SCOM Agreement and any claims in connection with or arising out of Termination;
- (c) retention and payments arising out of, or in relation to, liability for defects and deficiencies set forth in Article 34 of the SCOM Agreement;
- (e) outstanding Debt Service including the balance of Debt Due;
- (f). outstanding Subordinated Debt;
- (d) incurred or accrued O&M Expenses;
- (e) any other payments required to be made under the SCOM Agreement; and
- (f) balance if any, in accordance with the instructions of the Operator:

Provided that the disbursements specified in Sub-clause (j) of this Clause 4.2 shall be undertaken only after the Vesting Certificate has been issued by the Authority.

4.3 Application of insufficient funds



Funds in the Escrow Account shall be applied in the serial order of priority set forth in Clauses 4.1. If the funds available are not sufficient to meet all the requirements, the Escrow Bank shall apply such funds in the serial order of priority until exhaustion thereof.

4.4 Application of insurance proceeds

Notwithstanding anything in this Agreement, the proceeds from all insurance claims, except life and injury, shall be deposited into and/or credited to the Escrow Account and utilised for any necessary repair, reconstruction, reinstatement, replacement, improvement, delivery or installation of the Project, and the balance remaining, if any, shall remain deposited in the Escrow Account.

5 OBLIGATIONS OF THE ESCROW BANK

5.1 Segregation of funds

Monies and other property received by the Escrow Bank under this Agreement shall, until used or applied in accordance with this Agreement, be held by the Escrow Bank in trust for the purposes for which they were received and shall be segregated from other funds and property of the Escrow Bank.

5.2 Notification of balances

15 (fifteen) business days prior to each Payment Date (and for this purpose the Escrow Bank shall be entitled to rely on an affirmation by the Authority as to the relevant Payment Dates), the Escrow Bank shall notify the Authority of the balances and any anticipated shortfall in the Escrow Account and Sub-Accounts as at the close of business on the immediately preceding business day. In the event of any such shortfall, the Authority shall meet the same by crediting adequate sums to the Escrow Account from its own financial sources.

5.3 Communications and notices

In discharge of its duties and obligations hereunder, the Escrow Bank:

- (a) may, in the absence of bad faith or gross negligence on its part, rely as to any matters of fact which might reasonably be expected to be within the knowledge of the Authority upon a certificate signed by or on behalf of the Authority.;
- (b) may, in the absence of bad faith or gross negligence on its part, rely upon the authenticity of any communication or document believed by it to be authentic;
- (c) shall, within 7 (seven) business days after receipt, deliver a copy to the Authority acting through...... (name to be specified by the Authority) of any notice or document received by the Escrow Bank (in its capacity as the Escrow Bank) from the Operator or any other person hereunder or in connection herewith; and
- (d) shall, within 7 (seven) business days after receipt, deliver a copy to the Operator of any notice or document received by the Escrow Bank (in its capacity as the Escrow Bank) from the Authority or any entity in connection herewith.

5.4 No set off

The Escrow Bank agrees not to claim or exercise any right of set off, banker's lien or other right or remedy with respect to amounts standing to the credit of the Escrow Account. For the avoidance of doubt, it is hereby acknowledged and agreed by the Escrow Bank that the monies and properties held by the Escrow Bank in the Escrow Account shall not be considered as part of the assets of the Escrow



Bank and being trust property, shall in the case of bankruptcy or liquidation of the Escrow Bank, be wholly excluded from the assets of the Escrow Bank in such bankruptcy or liquidation.

5.5 Regulatory approvals

The Escrow Bank shall use its best efforts to procure, and thereafter maintain and comply with, all regulatory approvals required for it to establish and operate the Escrow Account. The Escrow Bank represents and warrants that it is not aware of any reason why such regulatory approvals will not ordinarily be granted to the Escrow Bank.

6 ESCROW DEFAULT

6.1 Escrow Default

6.1.1 Authority Default

Following events shall constitute an event of default by the Authority (an "**Authority Escrow Default**") unless such event of default has occurred as a result of Force Majeure or any act or omission of the Operator:

- (a) the Authority commits breach of this Agreement by failing to deposit any monies into the Escrow Account as provided herein and fails to cure such breach by depositing the same into the Escrow Account within a Cure Period of 30 (thirty) business days;
- (b) the Authority causes the Escrow Bank to transfer funds to any account of the Authority in breach of the terms of this Agreement and fails to cure such breach by depositing the relevant funds into the Escrow Account or any Sub-Account in which such transfer should have been made, within a Cure Period of 30 (thirty) business days; or
- (c) the Authority commits or causes any other breach of the provisions of this Agreement and fails to cure the same within a Cure Period of 30 (thirty) business days.
- 6.1.2 Operator Default

Following events shall constitute an event of default by the Operator (an "**Operator Escrow Default**") unless such event of default has occurred as a result of Force Majeure or any act or omission of the Authority:

- (a) the Operator commits breach of this Agreement by failing to deposit any monies into the Escrow Account as provided herein and fails to cure such breach by depositing the same into the Escrow Account within a Cure Period of 30 (thirty) business days;
- (a) the Operator causes the Escrow Bank to transfer funds to any account of the Operator in breach of the terms of this Agreement and fails to cure such breach by depositing the relevant funds into the Escrow Account or any Sub-Account in which such transfer should have been made, within a Cure Period of 30 (thirty) business days; or
- (b) the Operator commits or causes any other breach of the provisions of this Agreement and fails to cure the same within a Cure Period of 30 (thirty) business days.
- 6.1.3 Upon occurrence of an Authority Escrow Default or Operator Escrow Default, as the case may be, the consequences thereof shall be dealt with under and in accordance with the provisions of the Contract.



7 TERMINATION OF ESCROW AGREEMENT

7.1 Duration of the Escrow Agreement

This Agreement shall unless terminated earlier by the mutual consent of the Parties or otherwise in accordance with the provisions of this Clause by written notice from the Authority and the Operator to the Escrow Bank, remain in full force and effect for the duration of the Contract.

7.2 Substitution of Escrow Bank

The Authority may after consultation with the Operator, by not less than 30 (thirty) days prior notice to the Escrow Bank, the Authority, terminate this Agreement and appoint a new Escrow Bank, provided that arrangements are made for transfer of amounts deposited in the Escrow Account to a new Escrow Account established with the successor Escrow Bank. The termination of this Agreement shall take effect only upon coming into force of an Escrow Agreement with the substitute Escrow Bank.

7.3 Closure of Escrow Account

The Escrow Bank shall, at the request of the Authority made on or after the payment by the Authority of all outstanding amounts under the Contract including the payments specified in Clause 4.2, and upon confirmation of receipt of such payments, close the Escrow Account and Sub-Accounts and pay any amount standing to the credit thereof to the Authority. Upon closure of the Escrow Account hereunder, the Escrow Agreement shall be deemed to be terminated.

8 SUPPLEMENTARY ESCROW AGREEMENT

8.1 Supplementary escrow agreement

The Authority and the Operator shall be entitled to enter into a supplementary escrow agreement with the Escrow Bank providing, inter alia, for detailed procedures and documentation for withdrawals from Sub-Accounts pursuant to Clause 4.1.1 and for matters not covered under this Agreement such as the restrictions on withdrawals by the Operator or the Authority in the event of breach of this Agreement or upon occurrence of an Escrow Default, procedures relating to operation of the Escrow Account and withdrawal therefrom, reporting requirements and any matters incidental thereto; provided that such supplementary escrow agreement shall not contain any provision which is inconsistent with this Agreement and in the event of any conflict or inconsistency between provisions of this Agreement and such supplementary escrow agreement, the provisions of this Agreement shall prevail.

9 INDEMNITY

9.1 General indemnity

9.1.1 The Authority will indemnify, defend and hold the Operator and Escrow Bank, harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense arising out of any breach by the Authority of any of its obligations under this Agreement or on account of failure of the Authority to comply with Applicable Laws and Applicable Permits.



- 9.1.2 The Operator will indemnify, defend and hold the Authority harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense arising out of failure of the Operator to fulfil any of its obligations under this Agreement materially and adversely affecting the performance of the Authority's obligations under the Contract.
- 9.1.3 The Escrow Bank will indemnify, defend and hold the Authority harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense arising out of failure of the Escrow Bank to fulfil its obligations under this Agreement materially and adversely affecting the performance of the Authority's obligations under the Contract other than any loss, damage, cost and expense, arising out of acts done in discharge of their lawful functions by the Escrow Bank, its officers, servants and agents.

9.2 Notice and contest of claims

In the event that any Party hereto receives a claim from a third party in respect of which it is entitled to the benefit of an indemnity under Clause 9.1 or in respect of which it is entitled to reimbursement (the "**Indemnified Party**"), it shall notify the other Party responsible for indemnifying such claim hereunder (the "**Indemnifying Party**") within 7 (seven) days of receipt of the claim and shall not settle or pay the claim without the prior approval of the Indemnifying Party, which approval shall not be unreasonably withheld or delayed. In the event that the Indemnifying Party wishes to contest or dispute the claim, it may conduct the proceedings in the name of the Indemnified Party and shall bear all costs involved in contesting the same. The Indemnified Party shall provide all cooperation and assistance in contesting any claim and shall sign all such writings and documents as the Indemnifying Party may reasonably require.

10 DISPUTE RESOLUTION

10.1 Dispute resolution

- 10.1.1 Any dispute, difference or claim arising out of or in connection with this Agreement, which is not resolved amicably, shall be decided finally by reference to arbitration to a Board of Arbitrators comprising one nominee of each Party to the dispute, and where the number of such nominees is an even number, the nominees shall elect another person to such Board. Such arbitration shall be held in accordance with the Rules of Arbitration of the International Centre for Alternative Dispute Resolution, New Delhi (the "Rules") or such other rules as may be mutually agreed by the Parties, and shall be subject to the provisions of the Arbitration and Conciliation Act, 1996.
- 10.1.2 The Arbitrators shall issue a reasoned award and such award shall be final and binding on the Parties. The venue of arbitration shall be..... (name of the city) and the language of arbitration shall be English.

11 MISCELLANEOUS PROVISIONS

11.1 Governing law and jurisdiction

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the Courts at...... shall have jurisdiction over all matters arising out of or relating to this Agreement.

11.2 Waiver of sovereign immunity



The Authority unconditionally and irrevocably:

- (a) agrees that the execution, delivery and performance by it of this Agreement constitute commercial acts done and performed for commercial purpose;
- (b) agrees that, should any proceedings be brought against it or its assets, property or revenues in any jurisdiction in relation to this Agreement or any transaction contemplated by this Agreement, no immunity (whether by reason of sovereignty or otherwise) from such proceedings shall be claimed by or on behalf of the Authority with respect to its assets;
- (c) waives any right of immunity which it or its assets, property or revenues now has, may acquire in the future or which may be attributed to it in any jurisdiction; and
- (d) consents generally in respect of the enforcement of any judgement or award against it in any such proceedings to the giving of any relief or the issue of any process in any jurisdiction in connection with such proceedings (including the making, enforcement or execution against it or in respect of any assets, property or revenues whatsoever irrespective of their use or intended use of any order or judgement that may be made or given in connection therewith).

11.3 Priority of agreements

In the event of any conflict between the Contract and this Agreement, the provisions contained in the Contract shall prevail over this Agreement.

11.4 Alteration of terms

All additions, amendments, modifications and variations to this Agreement shall be effectual and binding only if in writing and signed by the duly authorised representatives of the Parties.

11.5 Waiver

- 11.5.1 Waiver by any Party of a default by another Party in the observance and performance of any provision of or obligations under this Agreement:
 - (a) shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions of or obligations under this Agreement;
 - (b) shall not be effective unless it is in writing and executed by a duly authorised representative of the Party; and
 - (c) shall not affect the validity or enforceability of this Agreement in any manner.
- 11.5.2 Neither the failure by any Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Agreement or any obligation thereunder nor time or other indulgence granted by any Party to another Party shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder.

11.6 No third party beneficiaries

This Agreement is solely for the benefit of the Parties and no other person or entity shall have any rights hereunder.

11.7 Survival

- 11.7.1 Termination of this Agreement:
 - (a) shall not relieve the Parties of any obligations hereunder which expressly or by implication survive termination hereof; and



- (b) except as otherwise provided in any provision of this Agreement expressly limiting the liability of either Party, shall not relieve either Party of any obligations or liabilities for loss or damage to the other Party arising out of, or caused by, acts or omissions of such Party prior to the effectiveness of such termination or arising out of such termination.
- 11.7.2 All obligations surviving the cancellation, expiration or termination of this Agreement shall only survive for a period of 3 (three) years following the date of such termination or expiry of this Agreement.

11.8 Severability

If for any reason whatever any provision of this Agreement is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the Parties will negotiate in good faith with a view to agreeing to one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable to such invalid, illegal or unenforceable provision. Failure to agree upon any such provisions shall not be subject to Dispute Resolution under Clause 10.1 of this Agreement or otherwise.

11.9 Successors and assigns

This Agreement shall be binding on and shall inure to the benefit of the Parties and their respective successors and permitted assigns.

11.10 Notices

All notices or other communications to be given or made under this Agreement shall be in writing and shall either be delivered personally or sent by courier or registered post with an additional copy to be sent by facsimile or e-mail. The addresses for service of each Party, its facsimile number or e-mail, are set out under its name on the signing pages hereto. A notice shall be effective upon actual receipt thereof, save that where it is received after 5.30 (five thirty) p.m. on a business day, or on a day that is not a business day, the notice shall be deemed to be received on the first business day following the date of actual receipt. Without prejudice to the foregoing, a Party giving or making a notice or communication by facsimile or e-mail shall promptly deliver a copy thereof personally or send it by courier or registered post to the addressee of such notice or communication. It is hereby agreed and acknowledged that any Party may by notice change the address to which such notices and communications to it are to be delivered or mailed. Such change shall be effective when all the Parties have notice of it.

11.11 Language

All notices, certificates, correspondence and proceedings under or in connection with this Agreement shall be in English.

11.12 Authorised representatives

Each of the Parties shall, by notice in writing, designate their respective authorised representatives through whom only all communications shall be made. A Party hereto shall be entitled to remove and/or substitute or make fresh appointment of such authorised representative by similar notice.



11.13 Original Document

This Agreement may be executed in four counterparts, each of which when executed and delivered shall constitute an original of this Agreement

IN WITNESS WHEREOF THE PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN

SIGNED, SEALED AND DELIVERED

SIGNED, SEALED AND DELIVERED

For and on behalf of by:

For and on behalf of ESCROW BANK AUTHORITY by:

(Signature) (Name) (Designation) (Address) (Fax No.)

SIGNED, SEALED AND DELIVERED For and on behalf of LENDER by: (Signature) (Name) (Designation) (Address) (Fax No.)

(Signature) (Name) (Designation) (Address) (Fax No.)

SIGNED, SEALED AND DELIVERED For and on behalf of OPERATOR in the presence of:

1.



2.

Signature:: Subject: CN=MAHENDRA SINGH, SERIALNUMBER=6cbeabfc6d23672f81d4da80 6722444d6ec72961a1c207cc28d61b8,ST=DELH, OID.2.5.4.07=110003,O ID.2.5.4.20=5e877fb32abf99668223434cba31cbd6feb2b686c927a5e1d6b 27acb4dd2fc, OU=SUPPLY CHAIN MANAGEMENT, O=ENERGY EFFICIENCY SERV ICSE LIMTED, C=IN USer ID : mahendra.singh Serial No: 1628840 PB : mahendra.singh(Mahendra Singh94 Date: 0.21-2.2022

SCHEDULE-N

STAFFING QUALIFICATIONS

(See Clause 5.5)

1. Drivers:

The Operator to ensure that the driver complies with the following conditions:

- Must be a holder of a valid driving license in accordance with Applicable Laws for at least [•] years preceding the date of employment; (the Operator to submit copies of the licenses of all such drivers appointed by it to the Authority for its record);
- (b) Should possess minimum [eight standard qualifications] and any other educational/ other requirements such as Public Service Vehicle (PSV) badge as prescribed under Applicable Law;
- (c) Should possess minimum [•] years' experience of driving heavy transport vehicles in India;
- (d) Should not have been blacklisted from operation of a heavy commercial vehicle and or a transport vehicle;
- (e) Should not have any pending cases related to fatal accidents or traffic fines due or have his license suspended at any time during the last [•] years preceding Effective Date; and
- (f) Should meet all requirements specified under Applicable Laws including without limitation, the Central Motor Vehicle Rules, 1989.



SCHEDULE-O

VESTING CERTIFICATE

(See Clause 33.5)

- 1. The (the "**Authority**") refers to the Contract dated*** (the "**Contract**") entered into between the Authority and (the "**Operator**") for(hereinafter called the 'Project').
- 2. The Authority hereby acknowledges compliance and fulfilment by the Operator of the handback requirements set forth in Article 33 of the Contract on the basis that upon issue of this Vesting Certificate, the Authority shall be deemed to have acquired, and all title and interest of the Operator in or about the Project shall be deemed to have vested unto the Authority, free from any encumbrances, charges and liens whatsoever.
- 3. Notwithstanding anything to the contrary contained hereinabove, it shall be a condition of this Vesting Certificate that nothing contained herein shall be construed or interpreted as waiving the obligation of the Operator to rectify and remedy any defect or deficiency in any of the handback requirements and/or relieving the Operator in any manner of the same.

Signed this *** day of ***, 20** at AGREED, ACCEPTED AND SIGNED For and on behalf of OPERATOR by: (Signature) (Name) (Designation) (Address)

SIGNED, SEALED AND DELIVERED For and on behalf of Authority by: (Signature) (Name) (Designation) (Address)

In the presence of:

1.





SCHEDULE-P

DATA MONITORING SYSTEM

(See Clause 19.7)

1. On Board Devices

In compliance with the obligations set forth in Clause 19.7 of this Agreement, the Operator shall install the on-board devices on each bus in accordance with the specifications listed in Annex 1 of this Schedule–P.

2. Data Monitoring System

In compliance with the obligations set forth in Clause 19.7 of this Agreement, the Operator shall install the data monitoring system comprising of all equipment and services listed in Annex 2 of this Schedule– P.



Annex – I On Board Devices

i. The Bidder shall procure buses as defined by the Authority which shall also include various but not limited to ITS System as defined by UBS II, AIS 140 Specifications and any amendments issued thereof. Some of the equipment's and their quantities are listed below:

Sr. No	Type of Equipment	12m/9m/7m (Qty)	Remarks
1	Passenger Display Boards	[3/4]	
2	Speaker	2	
3	Amplifier	1	
4	Single Control Unit (SCU) / On Board Unit (OBU)	1	
5	Driver Display Unit (DDU)	1	
6	CCTV with MDVR	[3/4]	Internal and External with 7 days backup storage
7	Panic Button		As per AIS 140 Specifications
8	Camera based Automatic Passenger Counters (APC)	[1/2]	At each door

- ii. The OBITS equipment installed in the buses should provide accuracy upto last 3-4 meters from the standing location and not beyond
- iii. The equipment of the OBITS shall be integrated to each other and the Bus CAN for transmitting all the bus data, vehicle tracking data and the any other data as required by the Authority. The Cost of such integration should be the responsibility of the Contractor.
- iv. The Authority shall provide all the route information for along with Passenger Information System to the Contractor to upload into the OBITS.
- v. The camera based passenger counter shall be integrated to the OBITS at the time of prototype approval, or delivery of the bus or as a date mutually agreed with the Authority.
- vi. The common minimum requirement of vehicle health monitoring and diagnostics (VHMD) parameters will be-SOC level, Motor speed in RPM, Vehicle Speed. The OEM should provide minimum 10 15 VHMD parameters through CAN Bus Data.
- vii. Security Camera Network (CCTVs) minimum three numbers and display screen should meet the specification for IP based cameras and mNVR as per Detailed specification document for CCTV devices as per IS 16833:2018 CCTV system with integrated emergency System (with 2-megapixel camera, SSD hard disc, 4G/5G, Wifi for data transfer). Responsibility of APIs based integration with backend System.
- viii. Rear View Camera System to display the zone behind the vehicle shall be provided along with display on or near dash board. The Reverse Parking Alert System (RPAS) shall comply with provisions of AIS 145. The indirect vision system shall get activated upon engagement of reverse gear. RPAS should give audio warning on reaching the critical distance available for reverse parking.



Annex - II Data Monitoring System

- The bidder shall procure buses in compliance with AIS-140: Intelligent Transportation Systems (ITS)
 Requirements for Public Transport vehicle operation and set up data monitoring systems for on board ITS: Vehicle Location Tracking, Camera Surveillance System and Emergency Request Button. The bidder shall set up systems for monitoring operations and managing incidents.
- ii. The bidder shall share real time data from on-board devices using standard communications protocols defined by AIS 140 with the Authority. The bidder shall give the Authority access to real time feed from buses through Advanced Programming Interface (APIs) and support the Authority in integrating feed from the buses procured under the concession to existing Intelligent Transport Management Systems (ITMS) set up by the Authority to ensure monitoring of services and KPIs set out under Article 20 of the agreement.
- iii. Electric bus (eBus) performance and safety are directly linked with the battery performance. The usage of eBus battery under sub-optimal conditions can directly influence the performance as well as life of the battery. Analysis of the impact of different stress factors (Battery temperature, C-rate, DOD, and SOC) on the battery can help in getting more insights into the degradation mechanism and battery aging (i.e. Calendar and Cyclic aging). Monitoring and analysis of some of the battery parameters during eBus operation is important to ensure optimal battery life and eBus performance along with a high level of safety. As the Battery Management System (BMS) of the eBus battery monitors all the critical parameters of the battery during eBus operation, the availability of these data with the Authority will help in better planning of eBus operation and charging strategies and ensure safety of operations.
- iv. The bidder shall share vehicle health monitoring and diagnostics (VHMD) parameters through the bus CAN data on a real time basis with the Authority. The following CAN parameters should to be integrated to the on board IoT device/OBITS and capable of transmitting data at a frequency of 30 sec either to a server set-up by the Authority or through APIs set up by the bidder. The list of CAN data parameters shall be shared over and above the vehicle location data through the on board telematics system.
 - 1. Timestamp
 - 2. Odometer reading
 - 3. Vehicle Status
 - 4. SoC (State of Charge)
 - 5. SoH (State of Health)
 - 6. Speed
 - 7. Acceleration
 - 8. Voltage (pack and cell level)
 - 9. Current (pack and cell level)
 - 10. Charger Current
 - 11. Charger Voltage
 - 12. Ambient temperature
 - 13. Cell temperature
 - 14. Motor temperature
 - 15. BMS error

The bidder shall share data related to the technical specification of the battery, performance, State of Charge (SoC) and State of Health (SoH) of the battery pack of each bus procured under the concession.



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The bidder shall support the Authority in setting up and integration of Battery Monitoring module under existing ITMS or newly developed monitoring system. The following parameters from the BMS and vehicle tracking unit shall be shared by the bidder for monitoring battery health and safety of buses.

S.No	Parameters	Frequency
1.	Technical Specification of Battery Pack	-
	Lithium Ion battery type	
	Battery pack capacity	
	Optimum operational temperature	
	Optimum C rate charging/discharging	
	Optimum Depth of Discharge (DOD)	
	Voltage and Current rating	
	Vehicle specification (Expected Full Charge Range)	
	Battery Management System details (Cell Balancing type)	
	Thermal Management System details (Cooling mechanism)	
2.	Vehicle Telematics data	Samples per 10 sec
	Trip parameters (GPS data and Map coordinates)	
	Vehicle speed	
	Odometer reading	
	Charging data (rate and time)	
	A/C consumption	
3.	Battery Management System (BMS) Data	Samples per 10 sec
	State of Charge (SoC)	
	Battery Pack Temperature	
	State of Health (SoH)	
	Terminal Voltage (Pack/Module) *	
	Battery Current *	

Note: * indicates optional data.



SCHEDULE-Q

PANEL OF CHARTERED ACCOUNTANTS

(See Clause 26.2)

1 Panel of Chartered Accountants

Pursuant to the provisions of Clause 26.2.1 of the Agreement, the Authority and the Operator shall prepare a mutually agreed panel of 5 (five) reputable firms of Chartered Accountants having their registered offices in India (the "**Panel of Chartered Accountants**"). The criteria for preparing such Panel and the procedure to be adopted in this behalf shall be as set forth in this Schedule-Q.

2 Invitation for empanelment

- 2.1 The Authority shall invite offers from all reputable firms of Chartered Accountants who fulfil the following eligibility criteria, namely:
 - (a) the firm should have conducted statutory audit of the annual accounts of at least one hundred companies registered under the Companies Act, 1956, or the Companies Act, 2013, of which at least ten should have been public sector undertakings;
 - (b) the firm should have at least 5 (five) practicing Chartered Accountants on its rolls, each with a minimum experience of ten years in the profession;
 - (c) the firm or any of its partners should not have been disqualified or black-listed by the Comptroller and Auditor General of India or the Authority; and
 - (d) the firm should have an office in the State or in an adjacent State with at least 2 (two) practicing Chartered Accountants on its rolls in such State.
- 2.2 Interested firms meeting the eligibility criteria shall be required to submit a statement of their capability including the bio-data of all the practicing Chartered Accountants on its rolls. In particular, each firm shall be required to furnish year-wise information relating to the names of all the companies with an annual turnover exceeding Rs. 25,00,00,000 (Rupees twenty five crore) whose annual accounts were audited by such firm in any of the preceding 5 (five) Accounting Years.

3 Evaluation and selection

- 3.1 The information furnished by each firm shall be scrutinised and evaluated by the Authority and 1 (one) point shall be awarded for each annual audit of the companies specified in Paragraph 2.2 above. (For the avoidance of doubt, a firm which has conducted audit of the annual accounts of any such company for five years shall be awarded five points).
- 3.2 The Authority shall prepare a list of all the eligible firms along with the points scored by each such firm and 5 (five) firms scoring the highest points shall be identified and included in the draft Panel of Chartered Accountants.

4 Consultation with the Operator

The Authority shall convey the aforesaid panel of firms to the Authority for scrutiny and comments, if any. The Operator shall be entitled to scrutinise the relevant records of the Authority to ascertain whether the selection of firms has been undertaken in accordance with the prescribed procedure and it shall send its comments, if any, to the Authority within 15 (fifteen) days of receiving the aforesaid panel.



5 Mutually agreed panel

- 5.1 The Authority shall, after considering all relevant factors including the comments, if any, of the Operator, finalise and constitute a panel of 5 (five) firms which shall be deemed to be the mutually agreed Panel of Chartered Accountants.
- 5.2 After completion of every 5 (five) years from the date of preparing the mutually agreed Panel of Chartered Accountants, or such earlier period as may be agreed between the Authority and the Operator, a new panel shall be prepared in accordance with the provisions of this Schedule-R.



SCHEDULE-R

SUBSTITUTION AGREEMENT

(See Clause 35.4)

THIS SUBSTITUTION AGREEMENT is entered into on this the day of 20....

AMONGST

- 1 The Governor of *****, represented by [• and having its principal offices at ****] (hereinafter referred to as the "**Authority**" which expression shall unless repugnant to the context or meaning thereof include its administrators, successors and assigns);
- 2 [..... Limited], a company incorporated under the provisions of the Companies Act, 2013 and having its registered office at (hereinafter referred to as the "**Operator**" which expression shall unless repugnant to the context or meaning thereof include its successors and permitted assigns and substitutes); AND
- 3 (name and particulars of Lenders' Representative) and having its registered office at, acting for and on behalf of the Senior Lenders as their duly authorised agent with regard to matters arising out of or in relation to this Agreement (hereinafter referred to as the "Lenders' **Representative**", which expression shall unless repugnant to the context or meaning thereof include its successors and substitutes).

WHEREAS:

- (A) The Authority has entered into a Supply cum Operation and Maintenance Agreement dated with the Operator (the "SCOM Agreement") for eBuses in the State on build, own, operate and transfer basis ("BOOT"), and a copy of which is annexed hereto and marked as Annex-A to form part of this Agreement.
- (B) Senior Lenders have agreed to finance the Project in accordance with the terms and conditions set forth in the Financing Agreements.
- (C) Senior Lenders have requested the Authority to enter into this Substitution Agreement for securing their interests through assignment, transfer and substitution of the Contract to a Nominated Company in accordance with the provisions of this Agreement and the SCOM Agreement.
- (D) In order to enable implementation of the Project including its financing, construction, operation and maintenance, the Authority has agreed and undertaken to transfer and assign the Contract to a Nominated Company in accordance with the terms and conditions set forth in this Agreement and the SCOM Agreement.

NOW, THEREFORE, in consideration of the foregoing and the respective covenants and agreements set forth in this Agreement, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the Parties agree as follows:

1 DEFINITIONS AND INTERPRETATION

1.1 Definitions



mahendra.singh : 1628840 endra.singh(Mahendra Sin2003 -12-2022 In this Substitution Agreement, the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereinafter respectively assigned to them:

"Agreement" means this Substitution Agreement and any amendment thereto made in accordance with the provisions contained in this Agreement;

"Financial Default" means occurrence of a material breach of the terms and conditions of the Financing Agreements or a continuous default in Debt Service by the Operator for a minimum period of 3 (three) months;

"Lenders' Representative" means the person referred to as the Lenders' Representative in the foregoing Recitals;

"Nominated Company" means a company, incorporated under the provisions of the Companies Act, 1956, or the Companies Act, 2013, as the case may be, selected by the Lenders' Representative, on behalf of Senior Lenders, and proposed to the Authority for assignment/transfer of the Contract as provided in this Agreement;

"Notice of Financial Default" shall have the meaning ascribed thereto in Clause 3.2.1; and

"**Parties**" means the parties to this Agreement collectively and "**Party**" shall mean any of the Parties to this Agreement individually.

1.2 Interpretation

- 1.2.1 References to Lenders' Representative shall, unless repugnant to the context or meaning thereof, mean references to the Lenders' Representative, acting for and on behalf of Senior Lenders.
- 1.2.2 References to Clauses are, unless stated otherwise, references to Clauses of this Agreement.
- 1.2.3 The words and expressions beginning with capital letters and defined in this Agreement shall have the meaning ascribed thereto herein, and the words and expressions used in this Agreement and not defined herein but defined in the SCOM Agreement shall, unless repugnant to the context, have the meaning ascribed thereto in the SCOM Agreement.
- 1.2.4 The rules of interpretation stated in Clauses 1.2, 1.3 and 1.4 of the SCOM Agreement shall apply, *mutatis mutandis*, to this Agreement.

2 ASSIGNMENT

2.1 Assignment of rights and title

The Operator hereby agrees to assign the rights, title and interest in the Contract to, and in favour of, the Lenders' Representative pursuant to and in accordance with the provisions of this Agreement and the SCOM Agreement by way of security in respect of financing by the Senior Lenders under the Financing Agreements.

3 SUBSTITUTION OF THE OPERATOR

3.1 **Rights of substitution**



- 3.1.1 Pursuant to the rights, title and interest assigned under Clause 2.1, the Lenders' Representative shall be entitled to substitute the Operator by a Nominated Company under and in accordance with the provisions of this Agreement and the SCOM Agreement.
- 3.1.2 The Authority hereby agrees to substitute the Operator by endorsement on the SCOM Agreement in favour of the Nominated Company selected by the Lenders' Representative in accordance with this Agreement. (For the avoidance of doubt, the Senior Lenders or the Lenders' Representative shall not be entitled to operate and maintain the Project as Operator either individually or collectively).

3.2 Substitution upon occurrence of Financial Default

- 3.2.1 Upon occurrence of a Financial Default, the Lenders' Representative may issue a notice to the Operator (the "Notice of Financial Default") along with particulars thereof and send a copy to the Authority for its information and record. A Notice of Financial Default under this Clause 3 shall be conclusive evidence of such Financial Default and it shall be final and binding upon the Operator for the purposes of this Agreement.
- 3.2.2 Upon issue of a Notice of Financial Default hereunder, the Lenders' Representative may, without prejudice to any of its rights or remedies under this Agreement or the Financing Agreements, substitute the Operator by a Nominated Company in accordance with the provisions of this Agreement.
- 3.2.3 At any time after the Lenders' Representative has issued a Notice of Financial Default, it may by notice require the Authority to suspend all the rights of the Operator and undertake the operation and maintenance of the Project in accordance with the provisions of Article 16 and 17 of the SCOM Agreement, and upon receipt of such notice, the Authority shall undertake Suspension under and in accordance with the provisions of the SCOM Agreement. The aforesaid Suspension shall be revoked upon substitution of the Operator by a Nominated Company, and in the event such substitution is not completed within 180 (one hundred and eighty) days from the date of such Suspension, the Authority may terminate the SCOM Agreement; provided that upon written request from the Lenders' Representative and the Operator, the Authority may extend the aforesaid period of 180 (one hundred and eighty) days by a period not exceeding 90 (ninety) days. For the avoidance of doubt, the Authority expressly agrees and undertakes to terminate the SCOM Agreement forthwith, upon receipt of a written request from the Lenders' Representative at any time after 240 (two hundred and forty) days from the date of Suspension hereunder.

3.3 Substitution upon occurrence of Operator Default

- 3.3.1 Upon occurrence of an Operator Default, the Authority shall by a notice inform the Lenders' Representative of its intention to issue a Termination Notice and grant 15 (fifteen) days time to the Lenders' Representative to make a representation, stating the intention to substitute the Operator by a Nominated Company.
- 3.3.2 In the event that the Lenders' Representative makes a representation to the Authority within the period of 15 (fifteen) days specified in Clause 3.3.1, stating that it intends to substitute the Operator by a Nominated Company, the Lenders' Representative shall be entitled to undertake and complete the substitution of the Operator by a Nominated Company in accordance with the provisions of this Agreement within a period of 180 (one hundred and eighty) days from the date of such representation, and the Authority shall either withhold Termination or undertake Suspension for the aforesaid period of 180 (one hundred and eighty) days; provided that upon written request from the Lenders'



Representative and the Operator, the Authority shall extend the aforesaid period of 180 (one hundred and eighty) days by a period not exceeding 90 (ninety) days.

3.4 Procedure for substitution

- 3.4.1 The Authority and the Operator hereby agree that on or after the date of Notice of Financial Default or the date of representation to the Authority under Clause 3.3.2, as the case may be, the Lenders' Representative may, without prejudice to any of the other rights or remedies of the Senior Lenders, invite, negotiate and procure offers, either by private negotiations or public auction or tenders for the take over and transfer of the Project including the Contract to the Nominated Company upon such Nominated Company's assumption of the liabilities and obligations of the Operator towards the Authority under the SCOM Agreement and towards the Senior Lenders under the Financing Agreements.
- 3.4.2 To be eligible for substitution in place of the Operator, the Nominated Company shall be required to fulfil the eligibility criteria that were laid down by the Authority for shortlisting the bidders for award of the Contract; provided that the Lenders' Representative may represent to the Authority that all or any of such criteria may be waived in the interest of the Project, and if the Authority determines that such waiver shall not have any material adverse effect on the Project, it may waive all or any of such eligibility criteria.
- 3.4.3 Upon selection of a Nominated Company, the Lenders' Representative shall request the Authority to:
 - (a) accede to transfer to the Nominated Company the right to construct, operate and maintain the Project in accordance with the provisions of the SCOM Agreement;
 - (b) endorse and transfer the Contract to the Nominated Company, on the same terms and conditions, for the residual Contract Period; and
 - (c) enter into a Substitution Agreement with the Lenders' Representative and the Nominated Company on the same terms as are contained in this Agreement.
- 3.4.4 If the Authority has any objection to the transfer of Contract in favour of the Nominated Company in accordance with this Agreement, it shall within 15 (fifteen) days from the date of proposal made by the Lenders' Representative, give a reasoned order after hearing the Lenders' Representative. If no such objection is raised by the Authority, the Nominated Company shall be deemed to have been accepted. The Authority thereupon shall transfer and endorse the Contract within 15 (fifteen) days of its acceptance/deemed acceptance of the Nominated Company; provided that in the event of such objection by the Authority, the Lenders' Representative may propose another Nominated Company whereupon the procedure set forth in this Clause 3.4 shall be followed for substitution of such Nominated Company in place of the Operator.

3.5 Selection to be binding

The decision of the Lenders' Representative and the Authority in selection of the Nominated Company shall be final and binding on the Operator. The Operator irrevocably agrees and waives any right to challenge the actions of the Lenders' Representative or the Senior Lenders or the Authority taken pursuant to this Agreement including the transfer/assignment of the Contract in favour of the Nominated Company. The Operator agrees and confirms that it shall not have any right to seek revaluation of assets of the Project or the Operator's shares. It is hereby acknowledged by the Parties that the rights of the Lenders' Representative are irrevocable and shall not be contested in any proceedings before any court or Authority and the Operator shall have no right or remedy to prevent, obstruct or restrain the Authority or the



Lenders' Representative from effecting or causing the transfer by substitution and endorsement of the Contract as requested by the Lenders' Representative.

4 **PROJECT AGREEMENTS**

4.1 Substitution of Nominated Company in Project Agreements

The Operator shall ensure and procure that each Project Agreement contains provisions that entitle the Nominated Company to step into such Project Agreement, in its discretion, in place and substitution of the Operator in the event of such Nominated Company's assumption of the liabilities and obligations of the Operator under the SCOM Agreement.

5 TERMINATION OF SCOM AGREEMENT

5.1 Termination upon occurrence of Financial Default

At any time after issue of a Notice of Financial Default, the Lenders' Representative may by a notice in writing require the Authority to terminate the SCOM Agreement forthwith, and upon receipt of such notice, the Authority shall undertake Termination under and in accordance with the provisions of Article 32 of the SCOM Agreement.

5.2 Termination when no Nominated Company is selected

In the event that no Nominated Company acceptable to the Authority is selected and recommended by the Lenders' Representative within the period of 180 (one hundred and eighty) days or any extension thereof as set forth in Clause 3.3.2, the Authority may terminate the SCOM Agreement forthwith in accordance with the provisions thereof.

5.3 Realisation of Debt Due

The Authority and the Operator hereby acknowledge and agree that, without prejudice to their any other right or remedy, the Lenders' Representative is entitled to receive from the Operator, without any further reference to or consent of the Operator, the Debt Due upon Termination of the SCOM Agreement. For realisation of the Debt Due, the Lenders' Representative shall be entitled to make its claim from the Escrow Account in accordance with the provisions of the SCOM Agreement and the Escrow Agreement.

6 DURATION OF THE AGREEMENT

6.1 **Duration of the Agreement**

This Agreement shall come into force from the date hereof and shall expire at the earliest to occur of the following events:

- (a) Termination of the Agreement; or
- (b) no sum remains to be advanced and no sum is outstanding to the Senior Lenders, under the Financing Agreements.

7 INDEMNITY

7.1 General indemnity



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- 7.1.1 The Operator will indemnify, defend and hold the Authority and the Lenders' Representative harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense of whatever kind and nature arising out of any breach by the Operator of any of its obligations under this Agreement or on account of failure of the Operator to comply with Applicable Laws and Applicable Permits.
- 7.1.2 The Authority will indemnify, defend and hold the Operator harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense arising out of failure of the Authority to fulfil any of its obligations under this Agreement, materially and adversely affecting the performance of the Operator's obligations under the SCOM Agreement or this Agreement, other than any loss, damage, cost and expense, arising out of acts done in discharge of their lawful functions by the Authority, its officers, servants and agents.
- 7.1.3 The Lenders' Representative will indemnify, defend and hold the Operator harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense arising out of failure of the Lenders' Representative to fulfil its obligations under this Agreement, materially and adversely affecting the performance of the Operator's obligations under the SCOM Agreement, other than any loss, damage, cost and expense, arising out of acts done in discharge of their lawful functions by the Lenders' Representative, its officers, servants and agents.

7.2 Notice and contest of claims

In the event that any Party hereto receives a claim from a third party in respect of which it is entitled to the benefit of an indemnity under Clause 7.1 or in respect of which it is entitled to reimbursement (the "**Indemnified Party**"), it shall notify the other Party responsible for indemnifying such claim hereunder (the "**Indemnifying Party**") within 15 (fifteen) days of receipt of the claim and shall not settle or pay the claim without the prior approval of the Indemnifying Party, such approval not to be unreasonably withheld or delayed. In the event that the Indemnifying Party wishes to contest or dispute the claim, it may conduct the proceedings in the name of the Indemnified Party and shall bear all costs involved in contesting the same. The Indemnified Party shall provide all cooperation and assistance in contesting any claim and shall sign all such writings and documents as the Indemnifying Party may reasonably require.

8 **DISPUTE RESOLUTION**

8.1 Dispute resolution

- 8.1.1 Any dispute, difference or claim arising out of or in connection with this Agreement which is not resolved amicably shall be decided by reference to arbitration to a Board of Arbitrators comprising one nominee each of the Authority, Operator and the Lenders' Representative. Such arbitration shall be held in accordance with the Rules of Arbitration of the International Centre for Alternative Dispute Resolution, New Delhi (the "**Rules**") or such other rules as may be mutually agreed by the Parties, and shall be subject to provisions of the Arbitration and Conciliation Act, 1996.
- 8.1.2 The Arbitrators shall issue a reasoned award and such award shall be final and binding on the Parties. The venue of arbitration shall be *** and the language of arbitration shall be English.

9 MISCELLANEOUS PROVISIONS

9.1 Governing law and jurisdiction



This Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the Courts at *** shall have jurisdiction over all matters arising out of or relating to this Agreement.

9.2 Waiver of sovereign immunity

The Authority unconditionally and irrevocably:

- (a) agrees that the execution, delivery and performance by it of this Agreement constitute commercial acts done and performed for commercial purpose;
- (b) agrees that, should any proceedings be brought against it or its assets, property or revenues in any jurisdiction in relation to this Agreement or any transaction contemplated by this Agreement, no immunity (whether by reason of sovereignty or otherwise) from such proceedings shall be claimed by or on behalf of the Authority with respect to its assets;
- (c) waives any right of immunity which it or its assets, property or revenues now has, may acquire in the future or which may be attributed to it in any jurisdiction; and
- (d) consents generally in respect of the enforcement of any judgement or award against it in any such proceedings to the giving of any relief or the issue of any process in any jurisdiction in connection with such proceedings (including the making, enforcement or execution against it or in respect of any assets, property or revenues whatsoever irrespective of their use or intended use of any order or judgement that may be made or given in connection therewith).

9.3 **Priority of agreements**

In the event of any conflict between the SCOM Agreement and this Agreement, the provisions contained in the SCOM Agreement shall prevail over this Agreement.

9.4 Alteration of terms

All additions, amendments, modifications and variations to this Agreement shall be effectual and binding only if in writing and signed by the duly authorised representatives of the Parties.

9.5 Waiver

- 9.5.1 Waiver by any Party of a default by another Party in the observance and performance of any provision of or obligations under this Agreement:
 - (a) shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions of or obligations under this Agreement;
 - (b) shall not be effective unless it is in writing and executed by a duly authorised representative of the Party; and
 - (c) shall not affect the validity or enforceability of this Agreement in any manner.
- 9.5.2 Neither the failure by either Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Agreement or any obligation thereunder nor time or other indulgence granted by a Party to another Party shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder.

9.6 No third party beneficiaries

This Agreement is solely for the benefit of the Parties and no other person or entity shall have any rights hereunder.



9.7 Survival

- 9.7.1 Termination of this Agreement:
 - (a) shall not relieve the Parties of any obligations hereunder which expressly or by implication survive termination hereof; and
 - (b) except as otherwise provided in any provision of this Agreement expressly limiting the liability of either Party, shall not relieve either Party of any obligations or liabilities for loss or damage to the other Party arising out of or caused by acts or omissions of such Party prior to the effectiveness of such termination or arising out of such termination.
- 9.7.2 All obligations surviving the cancellation, expiration or termination of this Agreement shall only survive for a period of 3 (three) years following the date of such termination or expiry of this Agreement.

9.8 Severability

If for any reason whatever any provision of this Agreement is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the Parties will negotiate in good faith with a view to agreeing to one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable to such invalid, illegal or unenforceable provision. Failure to agree upon any such provisions shall not be subject to Dispute Resolution under Clause 8 of this Agreement or otherwise.

9.9 Successors and assigns

This Agreement shall be binding on and shall inure to the benefit of the Parties and their respective successors and permitted assigns.

9.10 Notices

All notices or other communications to be given or made under this Agreement shall be in writing, shall either be delivered personally or sent by courier or registered post with an additional copy to be sent by facsimile or e-mail. The address for service of each Party, its facsimile number and e-mail address are set out under its name on the signing pages hereto. A notice shall be effective upon actual receipt thereof, save that where it is received after 5.30 (five thirty) p.m. on any day, or on a day that is a public holiday, the notice shall be deemed to be received on the first working day following the date of actual receipt. Without prejudice to the foregoing, a Party giving or making a notice or communication by facsimile or e-mail shall promptly deliver a copy thereof personally or send it by courier or registered post to the addressee of such notice or communication. It is hereby agreed and acknowledged that any Party may by notice change the address to which such notices and communications to it are to be delivered or mailed. Such change shall be effective when all the Parties have notice of it.

9.11 Language

All notices, certificates, correspondence and proceedings under or in connection with this Agreement shall be in English.

9.12 Authorised representatives



Each of the Parties shall by notice in writing designate their respective authorised representatives through whom only all communications shall be made. A Party hereto shall be entitled to remove and/or substitute or make fresh appointment of such authorised representative by similar notice.

9.13 Original Document

This Agreement may be executed in three counterparts, each of which when executed and delivered shall constitute an original of this Agreement.

IN WITNESS WHEREOF THE PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

THE COMMON SEAL OF OPERATOR has been affixed pursuant to the resolution passed by the Board of Directors of the Operator at its meeting held on the day of 20..... hereunto affixed in the presence of, Director, who has signed these presents in token thereof and, Company Secretary / Authorised Officer who has countersigned the same in token thereof ^{\$}: SIGNED, SEALED AND DELIVERED For and on behalf of AUTHORITY by:

> (Signature) (Name) (Designation) (Address) (Fax No.) (e-mail address)

SIGNED, SEALED AND DELIVERED

For and on behalf of

SENIOR LENDERS by the Lenders' Representative: (Signature)

(Name)(Designation)(Address)(Fax)(e-mail address)

In the presence of:

1.

2.

^{\$} To be affixed in accordance with the articles of association of the Operator.



SCHEDULE-S

STATEMENT OF INPUT COST

(See Clause 22.5.2)

Per	Period				
A	Total Units of Electricity consumed at the Maintenance Depot (kWh)				
B	Electricity Units consumed at/by the Bus Charging Infrastructure (kWh)				
С	Total electricity bill paid for bus charging (INR)				
D	Total cumulative kms operated during the period (kms)				
E	Price per kWh of electricity on the Date of Submission of Statement (C/B)				
F	Electricity cost covered under PK fee (units consumed (B)* INR (base tariff))				
G	Electricity input cost reimbursable by uthority (INR) (C-F)				

Name & Designation of the Authorised Signatory:

Date of Submission: _____

Note: Authority may modify the statement depending on specific requirement.



SCHEDULE-T

OPERATIONAL INFRACTIONS

(See Clause 20.8)

Lost Kilometers

For any missed Trip or Trip not completed, deductions shall be made in the following manner:

Sr. No.	Extent to which a Trip is missed	Deductions
1	A Trip, which either does not commence or does not complete even 25% of the kilometers for the Trip.	100% of the payment payable for the trip will be applied as performance deductions for theround trip. In addition, payment for the lost kilometers of the round trip, shall not be payable.
2	A Trip, which has completed more than 25% but less than 60% of the kilometers for the Trip.	75% of the payment payable for the kilometres for the trip will be applied as performance deductions for the round trip.In addition, payment for the lost kilometers of the round trip, shall not be payable.
3	A Trip, which has completed more than 60% but has not completed 100% kilometers for the Trip.	50% of the payment payable for the kilometres of the trip will be applied as performance deductions for the round trip. In addition, payment for the lost kilometers of the round trip, shall not be payable.

LOST KILOMETERAGE CLASSIFICATION & CAUSES - DEDUCTIBLE AND NON-DEDUCTIBLE

Staff (Deductible)

In service kilometres not operated due to staff causes may include (but is not limited to):

- a)Insufficient staff to cover the service including shortage, sickness or absence, industrial action etc.
- b) Sickness on duty (part loss).
- c) Suspension of driver (with-out replacement).



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(Mahendra Singh)

Mechanical(Deductible)

In service kilometers not operated due to mechanical causes may include (but is not limited to):

- a) Insufficient buses to cover the service.
- b) Non-serviceable bus.
- c) Breakdowns en-route.

Other Deductibles

In service kilometers not operated due to something over which the Operator has an element of control but which is not covered by staff or mechanical causes may include (but is not limited to):

- a) Staff error or unauthorized curtailments by staff.
- b) A bus blocked in the garage and unable to depart on time.
- c) A bus running got discharged en-route.
- d) Where a bus in service has to be withdrawn due to a defective PIS / GPS.
- e) Where the reason for the lost Kilometers is unknown or is in doubt.

Traffic (Non-Deductibles)

- a) In service kilometers not operated due to traffic causes may include (but is not limited to) Curtailments or lost journeys arising from the effect of traffic congestion whatever the cause.
- b) Losses arising from conductor (STU staff) being late in reaching changeover points must not be included.
- c) Losses arising from road traffic accidents involving the Operator's vehicle, when there is no fault of operator's driver.

Other Non-Deductibles

In service kilometers not operated due to something beyond the Operator's reasonable control but which is not covered by traffic causes may include (but is not limited to):

a) Incidents

Any kilometers losses resulting from incidents reportable to STU.

In case of strike / Bandh if bus and driver are available for duty but bus could not be operated.

Non-deductible losses apply only to the day the incident occurred and should not exceed the remainder of the duty in question unless exceptional circumstances are explained. For road traffic accidents or vandalism whilst in service it must be demonstrated that action was taken as quickly as possible to render the vehicle(s) fit



214 10023672f8 for service. Evidence must be readily available to show the number of vehicles affected, incident times, the extentofthedamage, engineers actionetc.

b) Disasters

Where a major occurrence requires a fundamental change to the planned operation, for example accidents or explosions.

Losses arising from traffic congestion caused by these events will be classified as non deductible.

c) Road Closed/Blocked

Where vehicles are 'turned back' or prevented from completing part of the route, for example security alerts, floods, diversions or roads blocked.

Losses arising from traffic congestion caused by these events should be classified as non deductible.

Other Infractions

An Incidence of sub-optimal performance and/or non-compliance of Specifications and standards shall be referred to as an "Infraction". The deduction for each Infraction shall be made in terms of the table set out below.

Infractions:

An Incidence of sub-optimal performance and/or non-compliance of Specifications and standards shall be referred to as an "Infraction". The deduction for each Infraction shall be made in terms of the table set out below:

Sr.	Category	Reference	Amount for Each	Time to Resolve for next
No.	of	Table for	Infraction for calculating	higher slab in terms of
	Infraction	Infraction	Performance Claim/	Clause of this Schedule
		in	Deduction (in Rupees)	(Bus related infraction)
		Annexure		
1	А	Table A	100/-	One day
2	В	Table B	500/-	Two days
3	С	Table C	1,000/-	Three Days
4	D	Table D	1,500/-	Three Days
5	Е	Table E	3,000/-	One day
6	F	Table F	10,000/-	One day
7	G	Table G	50,000/- + Actual	One day
			expenses to be borne by	
			the operator.	
8	H	Table H		



Note: Performance Deduction/Claim amount shall be applied even during time to resolve the infraction (Period indicated as in above table).

Infractions can be identified by STU, a nominated person, on visual checking, electromechanical reviews, reports from STU/passenger feedback and data from the Central Data Base of STU.

STU shall have access to Operator's facilities in order to check such Infractions on a regular basis either through visits to the workshops and garages commonly used by the Operator, or bus inspections at terminal points along the route during service hours.

The Operator may note that the formats provided in category wise Infractions given in tables A, B, C, D, E, F, and G are typical, but are subject to revision from time to time based on actual information, logistics and monitoring requirements.

In case of non-rectification of infraction within stipulated time to resolve, any subsequent repetition shall attract penalty of next higher slab with a ceiling of Rs. 3,000 per infraction, for category A, B, C, D & E. Thereafter, it will be binding on the Operator not to operate the vehicle till rectification of the bus related to infractions.

Total infractions of all buses, mentioned in tables A, B, C, D except Safety items shall be capped to 5 % of the total monthly due payments.

All other infractions (of Safety category) mentioned in tables A, B, C and D & all infractions mention in tables E, F, and G shall be non-capped.

The fine and penalties for Traffic offences shall be paid by the operator to Traffic police / RTO and any other authority within stipulated period.

If ITS equipments found switched off or not operated, then payment for that trip will not made.



CATEGORY WISE LIST OF INFRACTION

Table A : Category "A"Infraction

Sr. no.	Description of the infraction				
Safety					
1	Damaged/Missing window safety guard rails.				
2	Loose electrical wiring/ tampering with electrical wiring harness.				
3	Lack of specified fire extinguishers, empty or partially empty fire extinguishers that are				
	beyond the date of expiry, or do not specify the				
	expiry date.				
4	Damaged floor, steps, hatches, or hatch covers inside the bus.				
5	Missing damaged, or loosely hanging rub rails, hand grab rails, and hand holds.				
6	Missing, broken, or loosely hanging, seat belts if provided				
7	LED board defective (per board)				
8	Missing/ non operative, or blackened saloon lights, indicator lights, wiper system, wiper				
	blades, prescribed horn and any indicating instruments (per item)				
9	Fixing any additional lights, gadgets, guards, fixtures, etc. on the				
	exterior of the bus in contravention to the Applicable Laws.				
10	Fitment of radio, music system, or any other gadgets inside the bus				
	in contravention to the Applicable Laws.				
Operat	ions				
11	Not stopping at authorized bus stops on the Route				
12	Delaying operation of Stage Carriage Services without cause.				
13	Parking vehicles in stations against permitted rules and regulations.				
14	Driver smoking, chewing tobacco, betel leaf while on board the bus				
15	Picking and dropping passengers at unauthorized bus stops, if no conductor provided by STU				
16	Late out of bus more than 15 minutes at the time of turn out.				
Quality					
17	To operate vehicle with visible dents, damaged / torn external panels				
	that are more than 6" in width.				
18	Oil spillage on wheel rims, hubs, tyres, etc				
19	Discoloration or unpainted repair work inside the bus or on any of its items				
20	Not maintaining USB charging ports in ok condition				



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Table B: Category "B" Infraction

Sr.	Description of the infraction
No.	
Safety	
1	To operate with defective front, side and/or back brake lights
2	Section of handrail loose or with sharp edges
	Inadequate operation of passenger access doors, either due to damage or incorrect
3	operation which affects the boarding and alighting of passengers
4	Defective, emergency exits and hatches or damaged or bent bumpers
Oper	ations
5	Parking Stage Carriage Buses in places other than those prescribed by
5	STU
6	Deviating from the route of a service without the prior authorization or
0	instruction of STU/ Police without due cause
7	Roof leakage, Surveillance system not working/ recording, CCTV defect
8	Vehicle Tracking System defect
Qualit	y .
9	Dirty vehicle, outside or inside, at the beginning of the journey
10	Damaged, broken, loosely fitted, or missing passenger seats, windows
10	rattling
	Display of incorrect passenger route information, inadequately lit or illegible display of
11	passenger information at anyof designated locations for displaying passenger information
	on the bus
12	Display of slogans, posters on the bus without prior approval of STU.
13	Running the bus with a lux level less than 70 in the saloon area



Table C: Category "C" Infraction

Sr.	Description of Infraction		
No.			
Safety			
1	To reduce the percentage of visual transmission of lights of safety		
	glasses beyond normal as prescribed in Rule 100(2) of CMVR		
2	To drive with lights off in the saloon area and/or destination boards		
	after lighting uptime		
3	Use of unauthorized electronic equipment by the driver while driving		
	(Cell Phones, Walkman etc.)		
4	Causing minor road accidents		
5	Violation of any of the legal requirements related to registration,		
	operation and maintenance of the buses		
6	Fitment of an Air Pressure Horn		
7	Driving the bus in a defective condition, getting battery discharged out		
Opera	tions		
8	Operating unauthorized trips such as trips which do not form part of		
	the Schedule		
9	Tampering On-board Equipment		
10	Driver quarrelling with passenger(s) or road users or otherwise		
	misbehavior with passengers or other road users.		
11	Operational staff working beyond authorized working hours permitted		
	under Applicable Laws. (Unless situation demands)		
12	Breakdown / accidents- If the loss of kilometers is more than 5% of		
	schedule kilometers of that bus on that day.		
13	Air conditioning system defective en-route (AC buses)		
Quality			
14	To use or modified colors and designs of the external paintwork of the vehicle		
	outside the standards parameters as notified by Transport Division, STU.		
15	To place advertising material not authorized by STU or to infringe		
	regulations regarding advertising material in vehicles.		
16	Failure to refurbish the bus after sixth (Type II and Type III)/ Seventh year (Type I)		
	from date of put in service, per bus per day.		
17	Failure to comply with the maintenance obligations and safety requirements		



Table D : Category "D" Infractions

Sr. No.	Description of the infraction
Safety	
1	Damaged, or over worn tyres, poor quality retreading of tyres, poorly inflated tyres etc.
2	Causing Major road accidents.
3	Failure to deliver incident information on time, as required by STU as specified in the Operator's Agreement
4	To refuse to accept the visits of STU inspectors or authorized representatives. To hide information or to provide partial or erroneous information.
5	Failure to provide adequate information to STU/ Police in relation to accident/s, injury to persons, damage to public / thirdparty property
6	Misinformation or an attempt to hide anti-social incidents on the bus or accidents en-route
7	Driver carrying weapons/arms of any kind on board the bus/ on person while on duty

Table E: Category "E" Infractions

Sr. No.	Description of the infraction	
1	Over speeding, rash driving (driving bus beyond prescribed speed limit as notified from time to time)	
2	Driving drunk on duty or driving the bus while in a drunken state	
3	Tampering of speed governors	
4	skipping red signals, stopping the bus beyond the stop line at traffic signals	

Table F: Category "F" Infraction

Sr. No.	Description of the infraction
	"Serious nature of breakdowns" means breakdowns in those critical systems of bus such as which may result in fire, heavy damage to bus, major injury etc.

Sr. No.	Description of the infraction
1	Not out of Bus



Table G:Category "G" Infractions

Sr. No.	Description of the infraction
1	"Fatal Accidents" means any incident in which bus involved on road/ inside STU's depot / parking premises, which causes death to passengers / pedestrians.

Table H: Category"H"Infractions



Volume 3 – Technical Specifications for Type-I buses, BRTS, Type II and Type-III buses

Table 1: Technical specifications of Electric bus Compliant with the requirements of CMVR AIS:052(Type – I
AIS:153 + UBS II +& AIS:140 of 9m and 12m electric bus (not applicable for 150, 12m BRTS electric buses
for Surat under Lot 3, Technical Specifications for BRTS provided in Table 2)

S No.	Description	Technical Specification
	Introduction	 i. Stage Carriage buses shall conform to the specifications set out in this schedule. The minimum Technical Specifications have been set out for the following types of Stage Carriages: (a) Low Floor Fully Built AC Pure Electric Standard Size (12 Metre) Buses. (b) Low Floor Fully Built non-AC Pure Electric Standard Size (12 Metre) Buses. (c) Standard Floor (900 mm) Fully Built AC Pure Electric Standard Size (12 Metre) Buses. (d) Low Floor Fully Built AC Pure Electric Midi Size (9 Metre) Buses. (e) Standard Floor (900mm) Fully Built AC Pure Electric Midi Size (9 Metre) Buses. (f) Standard Floor (651 mm 900mm) Fully Built AC Pure Electric Midi Size (7 Metre) Buses. ii. The word "bus" shall mean the New Stage Carriage to be used for the
		 project. iii. The word "bus" shall also mean a bus powered exclusively by an Electric Motor whose traction energy is supplied exclusively by traction battery installed in the vehicle suitable for operations in city conditions.
		iv. The bidder shall comply with all applicable Central, State and local laws (including Acts, Rules & Regulations).
		v. The word "Bus" wherever it has been used in specifications means the " Battery Operated Bus ". The bus in general shall meat all applicable Central Motor Vehicle Rules, 1989 as amended (hereinafter referred to as "CMVR"), norms for safety applicable on the date of manufacture and Bus Code AIS 052 and any revisions thereof [hereinafter called Bus Code] AIS-049, AIS-038 and AIS-153 all amended up to date as also those related to easy passenger accessibility including for persons with disabilities (PWDs) and all other norms and regulations on high voltage electric vehicles.
		vi. Where there is conflict between the requirement as per any applicable law in force and the requirement emanating from these specifications whichever of these two is of superior/higher standard shall prevail. Also, any specifications superior to the ones set out as Minimum Technical Specifications shall meet requirements of the contract.
		Bus Model should be in compliance with CMVR & Bus Code and approved as per AIS: 052+AIS:153+ Annexure 3 of UBS II +FAME II by any Indian Government testing agency like ARAI, ICAT, NATRaX, CIRT etc.
	Statutory requirements	The eBus shall be designed and manuffactured invaccordance with the rest of the specifications & AIS-072 and UBS-114 Code solt Practice of the standard of the second solution of the s

		eBus shall be type approved as per CMVR requirements			
	FAME- II compliance	Bus should be compliant with FAME-II requirement			
1	Electric propulsion system & its requirements.	Electrically propelled system should design to meet "Code of practice for Electric Propulsion System" performance as per AIS 048 & AIS 049.			
		Electric Propulsion system should propel the bus at GVW fitted with all other auxiliary devices and system including air conditioning. Electric propulsion system and other sub-system should be able to operate efficiently at ambient temperatures / environmental conditions			
2	Type of Battery	Advance chemistry battery as defined by Ministry of Heavy Industry vide Notification No S.O. 1472(E) dated 28 th March 2019, as amended from time to time. Manufacture should use advance new generation batteries. Battery should cerified as per AIS-038 Rev-02 Amendment 3			
		For Human Safety, Battery should also be cerified with Office memorandum F.NO. 01(02) /2022 –AEI (20555) Dated 28th October 2022.			
3	 a. Battery Pack Rating and Energy/Power b. Minimum & Maximum Charging% c. Motor/s Capacity d. Charging standard e. Charging standard in high voltage system 	 (i) No. of Motors / Batteries as per Manufacturer's design (ii) Location of motor and batteries as per Manufacturer's design considering minimal maintenance and easy of charging (iii) Electric Regeneration is required (iv) Charging Mode as per Manufacturer's design. Charging Time less than 5 hours- overnight charging. (v) Safety–Short circuit/ Over Temperature / Lightening Protection is mandatory. (vi) CCS 2.0- Combined Charging System. 			
3.1	Battery Cooling System	Liquid Cooling system			
3.2	Battery Life	Battery to be used in mobility application upto 80% SoH. OEMs to replace battery when SoH falls below 80%.			
3.3	Battery Charging System	DC fast charging by CCS 2.0			
3.4	Electric Drive Motors	Optimal Rating, Type, Make, Model of Electric Drive Motors with minimum maintenance. Motor should be able to operate efficiently at ambient temperatures of approximately 0 to 50 degrees centigrade, humidity level from 5% to 100%.			
3.5	Electric propulsion system motor rating / power sufficient to provide Rated Performance at GVW in Stop/ Start In Urban Operation:				
a.	Rated Performance at GVW in Stop/ Start In Urban	Maximum speed without speed limiter to be minimum 70 +/- 5 kmph at GVW load and air conditioning and other sub-system operational.			
b.	Operation Acceleration (Meter / Sec. ²)	Maximum rated speed should meet the requirement as per CMVR ≥0.8			
<u>с.</u>	Bus Speed of $0 - 30$ kmph in Seconds.	≤0.8 Signature:- Subject: CN=MAMENDAA SINSH. SEMALINUMBER_BOLUBADIO (0236726) 6722444d6ec7296fa1c207cc28d61b8, ST=DELHI, OID 2.5.4.17=11000 10.2.5.4.20=588472abd96682823a344cba31cbdfe6b2666223a58 27acb4dd2fc, Oll=SUPPLY CHAIN MANAGEMENT, O=ENERGY EFFICIENC (CES LIMITED, C=IN USer ID: mahendra.singh			
	Maximum Speed	Maximum speed without speed limiter to be a singh			

e.	Grade ability from Stop at GVW	17%
f.	Rated HP/torque preferably at lower rpmrange	Rated HP at low rpm and Maximum torque required at lower range of motor RPM and spread over a wider range of RPM Sufficient
		torque to meet the acceleration, gradeability, AC and range requirement.
g.	Power requirements for Air conditioning system ITS, etc	Required to be provided by traction battery of electric propulsion system
h.	Energy Consumption of e- Bus when tested as per AIS	Standard Bus (12 m) AC: 1.3 kWh/km Standard Bus (12 m) non-AC: 1.1 kWh/km Midi Bus (9 m) AC: 1.0 kWh/km
	039 (latest revision) with AC ON and AC OFF condition (Annual Average)	Midi Bus (9 m) Non-AC: 0.85 kWh/km Mini Bus (7m) AC: 0.8 kWh/km
3.6	Pass bye noise norms	As per CMVR & bus code AIS:052
4	Operational safety	Transmission system to be fitted with a mechanism which makes it possible to engage reverse gear only when vehicle is stationary
5	Bus Characteristics	
5.1	Front Axle	As per manufacturers design UBS-II / AIS 052/CMVR
5.2	Rear Axle	As per manufacturers design UBS-II / AIS 052/CMVR
6	Suspension (Front & Rear)	Air suspension at Front & Rear
6.1	Anti-roll bars/stabilizers	Required at front and rear If independent front suspension is used, anti-roll bar is not required.
6.2	Shock absorbers	Hydraulic double acting 2 at front & 2/4 at rear
6.3	Kneeling applicable in case of air suspension (required only for 400 mm floor height buses)	Min. 60 mm entry /exit side collectively
6.4	Controls (optional)	Electronically controlled air suspension system
7	Steering	Power steering with height and angle adjustment. As per manufacturers design UBS-II / AIS 052/CMVR
8	Transmission	Automatic transmission.
9	Brakes	As per manufacturers design
9.1	Braking system	 Mandatory ABS with Disc at front and Drum at rear OR disc brake at front and rear. In case of Brake Failure provision should made for obtaining effectiveness of service brake Graduated hand controlled, spring actuated parking brakes acting on rear wheels.
10	Electrical system for auxiliary devices	24V DC
10.1	Batteries (ancillaries equipment and light and light signalling devices)	Low maintenance type leads acid batteries for 24 V & Min 100Ah system- performances as per BIS: 14257- 1995 (latest).
10.2	Electrical wiring & controls -type	Multiplexing type As specified separately underITS specifications and conforming to IP 67. It should be as per UBS-II and AIS: 153. It should be as per UBS-II and AIS: 153.
11	Speed limiting device	Electronic type duly approved /centre and the adjusted of the adjusted of the adjust o

12	Tyres	Steel Radial Tube-less standard.	s. Size and performance as	per CMVR/IS/AIS		
13	Charging range	Daily operation km pe	r bus upto 225 kms with on ninutes (depot-in, depot-out			
		The minimum range (;	autonomy) on single charge	e of		
		(i) 200 kms (at 80	0% SoC) for 12 m bus			
	1	(ii) 180 kms (at 80	0% SoC) for 9 m bus, &			
			0% SoC) for 7 m bus,			
			AIS 040 standard by Indian			
	1		CIRT/ VRDE etc.) along the additional AC load (in c			
	1	along with all system		ase of AC buses		
14.1			9- Meter	1		
17.1	Bus characteristics	12- Meter	(Midi)	7- Meter (Mini)		
		(Standard)				
А	Overall length (excluding bumper)	11900 -12300 mm	8500 -9500 mm	6900 -7200 mm		
В	Overall width (sole	2600 mm	2600 mm	2200 mm		
	bar/floor level- extreme	(maximum)	(maximum)	(maximum)		
С	points) Overall height (unladen - at		As per CMVR			
C	extreme point)	As per CMVR	As per Chiran	As per CMVR		
D		Low Floor- 400mm	Low Floor- 400mm	Semi Low Floor		
	Floor Height above ground	Standard Floor-	Standard Floor- 900	$-650 \text{ mm} \pm 25$		
		900 mm ±25 mm	mm ±25 mm	mm		
E	1	As per CMVR	As per CMVR	As per CMVR		
	Wheelbase	6100	4700 ±250mm	3600 ±200mm		
		(Tolerance -100				
	'	mm +250mm As per CMVR-				
_		^	or ahead of Front axle and	monting the		
F	Front Overhang	requirement of AIS-0		meeting the		
G	Rear Overhang	As per CMVR				
14.2	Maximum turning circle	As per CMVR				
	radius (mm)	_				
14.3	Clearances (mm)					
А	Minimum Axle clearance	Minimum 165 mm				
В	(mm)	> 220 mm for parts fi	xed to bus body $\&> 170 \text{ m}$	n for the parts		
Б	Wheel area clearance (mm)	moving vertically wit	÷			
С	Minimum ground clearance		not less than 240mm.			
e	(un-kneeled) at GVW					
14.4	Angles (degrees)					
А	Angle of approach (unladen)					
В	Angle of departure (unladen)		andard bus & 8.5° for Mic	di and Mini bus		
с	Ramp over angle (half of break-over angle)	Not less than 4.8°	Signature :- Subject : CN=MAHENDRA 672244406ec7e96fa1c20' ID.2.5.4.20=5e8477fb32a 277ac440/21c, 00f=50/PfC	SINGH, SERIALNUMBER=6cbeabfc6d23672f81d4 7cc28d61b8, ST=DELHI, OID.2.5.4.17=11003, O b1996688234344cba31cbdf6eb2b68c927a541d * CHAIN MARAGEMENT: 0=ENCROPETFICENCY S		
15	Bus Gates/Doors			1 U001, JK		
		type/Swing in door as	, per manufacturing design	andra Singn)		
B	(unladen)Angle of departure (unladen)Ramp over angle (half of break-over angle)	Not less than 8.5° for Standard bus & 8.0° for Midi and Mini bus Not less than 9° for Standard bus & 8.5° for Midi and Mini bus Not less than 4.8° Signature :- Subject : CN=MAHENDRA SINGH, SERIALNUMBER=6cbeab/c6d23672f8 6722444decr20661bg, 2742d61bg, 27434cbe31cbd/c6d23672f8 672244decr20661bg, 27434cbe31cbd/c6d23672f8 672244decr20661bg, 27434cbe31cbd/c6d23672f8 672244decr2061bg, 27434cbe31cbd/c6d23672f8 67224decer2061bg, 27434cbe31cbd/c6d23672f8 67224decer2061bg, 27434cbe31cbd/c6d23672f8 67224decer2061bg, 27434cbe31cbd/c6d23672f8 67224decer2061bg, 27434cbe31cbd/c6d23672f8 67224decer2061bg, 27434cbe31cbd/c6d23672f8 67224decer2061bg, 27434cbe31cbd/c6d23672f8 67224decer2061bg, 27434cbe31cbd/c6d23672f8 67224decer2061bg, 27434cbe31cbd/c6d23672f8 67264df, 27465647767 67264df, 27465647767 67264df, 27465647767 67264df, 27465647767 67264df, 27465647767 67264df, 27465647767 67264df, 27465647767 67264df, 27465647767 67264df, 27465647767 672644767767 6726477777 67264777777 672647777777777				

	Door) Ramp for wheel chair at the gates	1 Door for 7 Metre (Mini Wheel base.Driver Door as per CMV	ndard) & 9 Metre for (Midi) i)-there should be only 1 door within /R/AIS052, CMVR/AIS-052 & AIS-153				
А.	Operating mechanism	Passenger Door: Electro pn Driver Door: Manually Ope					
В.	Opening/Closing time in seconds per operation (maximum)	4 Seconds	Seconds				
C.	Positions of door controls	On dashboard and also insi	de & outside of doors as per AIS 052.				
D.	Passenger safety system – allowing bus motion on doors closing and doors opening only when the bus is stopped	Mandatory.	landatory.				
E	Door Components/Door Locks/Locking system/door hinges/Door retention	As per AIS 052	per AIS 052				
15.1	Service doors – Requirement	As per AIS 052 & AIS 153					
А				l			
	Minimum door aperture	Door Aperture	Width	l			
	(without flaps) in mm	12 m (Type-I)	1200 mm (Middle Door) 650 mm (FOH/ROH Door) Or Both Door with 1200 mm Aperture				
		9 m (Type-I)	650 mm	i			
		7 m (Type-I)	650 mm				
В	Minimum clear door width (fully opened) in mm	1000 + 50 mm for 12 Metre 600 ± 50 mm for 12 Metre,					
С	Minimum door height in mm	1900 mm					
D	Positioning front service gate	Ahead of front axle for 12 M Ahead or Behind of front	t axle for 7 Metre				
E	Number of gates	2 Nos. for 12 Metre and 9 M	letre.	1			
15.0	De se el sin e en universente	1 No. for 7 Metre	1 destruction and a d	1			
15.2	Door closing requirements for bus movement	Bus should move only after	door closing completed	1			
A	Power operated service door - construction & control system of a power operated service door to be such that a Passenger is unlikely to be	As per AIS 052	Signature :- Solject : GeorGeorgeonal Control	d4da801 , O 1d6b Y SERV			
	injured/trapped between the doors while closing		Serial No : 1628940 PB ; maherdra.singh(Mahendra Singh) Date : 02-12-2022	ļ			

15.3	Step height (mm) from	For Low Floor Fully Built - Direct entry no step	1	
10.0	ground - unladen &un- kneeled position in buses	Floor Height Steps as per AIS-153		
16	Provisions of for wheel chair of Persons with Disability (PwD)	Should meet requirement as per AIS-153		
A	wheel chair Boarding Devices	Ramp mandatory for one door (Preferably Within rear side door) as per AIS-153 for Low Floor Bus. Ramp should be power operated and should meet the requirement as per AIS-153		
В	Area, Length and Width of boarding devices	As per AIS-153		
С	Slope of ramp in % & Slope of extended ramp if provided in %	As per AIS-153		
D	Load carrying capacity (in kilograms)	As per AIS-153		
E	Device to prevent the wheel chair roll off the sides when the length exceeds	As per AIS-153		
F	Device to lock wrapped up ramp	As per AIS-153		
G	Kneel ramp control	As per AIS-153		
Н	Mode of operation for Ramp	As per AIS-153		
Ι	Requirement for passengers with Reduced mobility	As per AIS-153		
J	Wheel chair anchoring - minimum for one-wheel chair	As per AIS-153		
K	Priority seats - minimum 2 seats	As per AIS-153		
L	Stop request	As per AIS-153	1	
М	Emergency door /exists or Apertures	Emergency Exit (Door/Window) should provide for Disabled person near to Wheelchair location. Safety and proper movement of disabled person should considered.		
N	Other Technical requirement	Push button of an alighting buzzers, Location of wheelchair space shall be clearly highlighted and be visible using the standard symbols for wheelchair accessibility. The lifting platform should be fitted with a safety restraints system e.g., safety belt, handrails, etc. With built-in safety para Metres to avoid any slippage.		
		For the Floor Height 900 mm and above – 12m & 9 m Buses Hydraulic Lift arrangement should be provided for PwD.		
17	Bus design		1	
17.1	Design type approval	As per CMVR, AIS;052 + AIS:15301Se16833 and IS 16490	1d4da8	
17.2	Design type approval As per CMVR, AIS;052 + AIS:153nEs*16833 and JS 16490 Bus structure - materials specifications etc. OEM should ensure GLubular structure = GLubular structure = GLUBS III + AIS;052 + AIS:153 Bus structure - materials specifications etc. As per CMVR, as per CMVR, as per CMVR, as per CMVR, and as per CMVR, and a single control of the second structure = GLUBAL AND A second struct			

17.3	Insulation	FR grade material as per IS 15061
A	Roof and side	FR Grade material glass wool, PU foam or thermocol:
B	Battery Pack compartment	As per AIS:052.
17.4	Floor type/Materials etc.	16 per 110.052.
А	Type of Floor	As per AIS:052 requirements.
В	Steps on floor	As per AIS:052 / AIS 153 requirements.
С	Maximum floor slope	As per Bus AIS:052
D	Floor surface material	Minimum 15mm thickness phenolic resin bonded densified laminated compressed wooden floor board (both side plain surface) having density of 0.95 - 1.25 gms/cc conforming to IS 3513 (Part- 3): type VI 1989 or latest. The flooring should also be boiling water resistant as for marine board BIS:710-1976/ latest and fire retardant as per BIS:5509-2000 (IS15061:2002). The chequered plywood 15mm thick is also allowed as per the relevant standard for the quality and fire resistance/flammability.
Б		3 mm thick anti-skid type silicon grains ISO 877/76 for
E	Anti – skid material	colour, IS:15061:2002 for FR grade.
17.5 A	Safety glasses and fittings: Front windscreen (laminated) glass:	Single piece laminated safety glass, plain, lateral/curved with curved corners with PVB film IS 2553 (Part-2)-1992/latest. Standard designs
	_	for each variant of buses to be followed
В	Laminated Glass	Total Thickness = $8.76 \text{ mm} \pm 0.2 \text{ mm}$
	Specifications	Clear Interlayer
С	Rear windscreen:	Single piece flat/curved toughened glass- plain/flat/curved at centre
C	(wherever provided)	& curved at cornersIS:2553 (Part-2)–1992/latest revision
D	Side windows:	Single piece flat /curved pasted toughened glass as per IS
D	Side windows.	2553 (Part-2)-1992/latest revisoin
Е	Side Window /Rear	Toughened glass IS2553 (Part-2)-1992/latest revision
Ľ	Windshield Glass specifications	Thickness = $4.8-5.3$ mm
F	Other glasses - material specs, thickness etc. (If Provided).	Toughened as per IS:2553 (Part-2)–1992/latest revision of Thickness = 4.8- 5.3 mm thickness
17.6	Driver Seat	Should meet the requirement as per AIS-023 and AIS-052
A	Performance & strength requirements Driver Seat	As per AIS-023
В	Driver's working space	As per AIS-052
С	Driver seat belt & anchorage duly type approved.	ELR recoil type, 3 point mounting as per CMVR & AIS 052 conforming to AIS 005 & AIS 015
17.7	Passenger Seat and Layout	Should meet the requirement as per AIS-023 and AIS-052
A	Performance & strength requirements passenger Seat	As per AIS-023
В	Passenger Seat	Type Approved Seats & seating layout as per bus code 'PP-LD' (Polypropylene Low Density)/ LDPE moulded construction, with moulded flame retardant Polyurethane (PU) cushion for seat & back rest meeting the performance requirements of AIS 023 and other requirements as per the AIS-052 for Type I application. Flammability of passenge seat components of PICPH State Proceedings of the Picture 1000 for the AIS 100 for
		The gangway shall as per the provisions of the AIS 052 Bus Code/UBS-II and would meet the requirements of AIS-153.

С	Passengers seat belt			
U	Number and Location	As per AIS-052		
D	Seat layout in Floor area	2X2 as per AIS-052		
Е	Minimum seating capacity	i. Total 36 numbers for Standard (12-meter) bus excluding wheelchair.(36 seats + 1 wheelchairs + Driver),		
		 ii. Total 23 numbers for Midi (9-meter) bus excluding wheelchair. (23 seats + 1 wheelchairs + Driver), & 		
F	Standee Passenger	iii.Total 13 numbers for Mini (7-meter)bus (13 seats + Driver)As per AIS 052.		
1.	Stanuce r assenger	Max. Number & Area of Standee should be calculated as per AIS052 and CMVR.		
I		Minimum standee passenger for		
		i. $12 \text{ m bus} = 23 \text{ numbers}$		
		ii. $9 \text{ m bus} = 13 \text{ numbers}$		
		iii. $7 \text{ m bus} = 10 \text{ numbers}$		
G	Seat area/seat space per Passenger (width*depth) mm	400 mm x 350 mm		
Н	Seat pitch - minimum (mm)	As per AIS 052		
Ι	Minimum backrest height- from floor to top of seat/headrest	As per AIS 052		
J	Seat back rest & height mm	Fixed Type seat and Height as per AIS 052		
К	Seat base height-distance from floor to horizontal front upper seat cushion	As per AIS 052		
	mm.	As per AIS 052		
L	Free height over seating position (mm)	900 mm Min.		
Μ	Seat base height:	As per AIS 052		
N	Torso angle (degrees)	As per AIS 052		
0	Clearance space for seated Passenger facing partition (mm)	350 mm Min.		
Р	Seat Arm	Seat arm required for aisle seats and seats opposite to service door and above wheel arches.		
Q	Upholstery:	Pile Fabric OR Jacquard 0.8-1.0 mm thickness		
R	Seating to Standee Ratio	Not Required		
S	Side Facing seat location	Not Required		
Т	Seat belts & their anchorage	As per AIS-052	ERV	
U	Water Bottle Pounch	Optional Fitment		

V	Magazina	Not acquired	1
V	Magazine	Not required	
	pounch,Indiviual Reading		
	light, Passenger Fan for		
18	Non Air conditioning Rear view mirrors	As per CMVR and AIS-052	
A	Mirrors right/left side exterior/interior	As per AIS 001 & 002. Interior with double curvature	
19	Escape Hatch/Ventilator	As per AIS-052 & AIS-153	
	on Floor /Roof		
20	Corrosion prevention & painting	As per AIS 052	
21	Wind screen wiping		
	system:		
Α	Wiper motor:	As per CMVR: IS 15802	
В	Wiper arm/Wiper blade		
	Washing system		
22	Electrical system	As per CMVR and as per AIS 052.	
22.1	Electrical cables:	Copper conductors with fire retardant as per IS/ISO:6722:2006 as per	
		appropriate class. Conductor cross- section varying as per circuit	
		requirements, minimum cross- section 0.5 sq. mm. Quality marking	
		may also be as per equivalent or better European, Japanese, US	
22.2	Conductor cross section	standards, Conforming to IP 67 water& air-tight for traction battery. For Bus Body Building IS 2465/Multiplex wiring /ISO 6722	
22.3	Safety requirements of		
	electrical		
A	Fuse Isolation switches for		
В	electrical circuits where		
Б	RMS value of voltage		
	exceeds 100 volts		
С	Location of cables away		
	from heat sources		
	Type approval of circuit	As per AIS 052.	
D	diagram as per	Battery cut off (Total Two)	
	standards related to electric	 One manual near driver seat One electronic on driver Dashboard area. 	
E	equipment's/wiring Battery cut - off switch	- One electronic on driver Dashooard area.	
L	(isolator switch):		
22.5	Lighting - internal &	All lights including interiors should be LED Type	
	external and illumination	Head Lights can be bulb type.	
		Other information as per AIS 052 and AIS 153	
22.6	Illumination		
	requirements/performance		
•	of:	A	
A	Dash board tell-tale	As per AIS 052	
	lighting/control lighting Cabin lighting - luminous	As per AIS 052 with illumination level of \geq 100 lux & \leq 200 lux	
В	flux of all lampsfor cabin	As per Als 0.52 with multimation level of \geq 100 fux $\approx \leq$ 200 fux	
	Lighting	Signature :-	
	Passenger area lighting -	As per AIS 052 with illumination	d4da801b75 , O 1d6b Y SERV
С	luminous flux of all lamps	User ID : mahedra singh	DERV
	for Passenger area lighting	Serial No.: 1628840 PB : mahendra.singh(Mahendra Singh) Date : 02-12-2022	
23	ITS enabled bus	i. The Contractor shall procure buses as defined by the Authority	1

	define amen		IS 153 AIS 1 eof.	ot limited to ITS System as 140 specifications and any ed to, include:
	Sr. No	Type of Equipment	12/9M/7M (Qty)	Remarks
	1	Passenger Display Boards as per IS 16490 specifications	4	Internal, Front, Left Side, and Rear
	2	Speaker	2	
	3	Amplifier	1	
	4	Fully ITS compliant	1	As per IS 16490 specifications and amendment 2
	5	DDU	1	As per IS 16833 annexure C Amendent 2
	6	CCTV Camera with 4G eSIM MDVR MNVR	4 1	Internal and External with 30 days backup storage as per IS 16833 annexure C 4 or 8 channel minimum 2 TB DVR for recording
	7	Panic Button		As per AIS 140 Specifications
	8	Camera based Passenger Counters	2	At each door as per the specifications in Annexure 1 below
iii. iii. iii. iv.	accur beyon the II is not system respo charg . The e and th data a of suc . The o diagn real th	racy upto last 3-4 me and. The Authority ha TS OBITS system in t within the prescribe onsible to change the ge upon receipt of re equipment of the ITS the Bus CAN for tran and the any other da ich integration should operator is required to nostics (XW 4D) par time basis with the A	eters from the s has the right to a ncluding but no bed distance of a g accurately. The entire system equest from the CS OBITS shall unsmitting all the ata as required 1 Id be the respon- to share vehicle rameters in the state of a curve of a	the buses should provide standing location and not ask the Contractor to change ot limited to if the accuracy actual location and if the ne Operator shall be without any additional e Authority on such change. be integrated to each other ne bus data, vehicle tracking by the Authority. The Cost nsibility of the Operator of heat from the tracking by the Authority. The Cost nsibility of the Operator of heat from the tracking by the Bus CAN data on a following CAN parameters capable of transmitting data

		at a frequency of 30 sec either to a server set-up by the Authority
		or through APIs set up by the operator
		1. Timestamp
		2. Odometer reading
		3. Vehicle Status
		4. SoC (State of Charge)
		5. SoH (State of Health)
		6. Speed
		7. Acceleration 8. Voltage (peak and cell level)
		8. Voltage (pack and cell level)
		9. Current (pack and cell level)
		10. Charger Current11. Charger Voltage
		12. Ambient temperature
		13. Cell temperature
		14. Motor temperature
		15. BMS error/charging fault
		v. The Authority shall provide all the route information to the
		Operator to upload into the ITS-OBITS in regular intervals. The
		Operator should make the required changes as and when provided
		by the Authority within seven (7) working days for the envisaged
		routes to be made operational. Information displayed in the PIS
		Boards should be dynamic and not static accounting for any route
		change or deviation from existing routes.
		vi. The Camera Based Passenger Counter shall be integrated to the
		SCU at the time of prototype approval, or delivery of the bus or as
		a date mutually agreed with the Authority.
		vii. Security Camera Network (CCTVs) minimum four numbers should
		meet the specification for IP based cameras and MNVR as per
		Detailed specification document IS 16833:2018 CCTV system with
		integrated emergency System and built-in tracking system (with
		min 5-megapixel camera, SSD hard disc, 4G/5G, Wifi for data
		transfer). Real-time feed enabled at DDU and provision for
		integration with central ITMS system through APIs.
		viii. Four hi-resolution CCTV cameras and one reverse camera to be
		installed in the e-buses. These hi-resolution CCTV cameras shall
		be installed each one at 'A' pillar facing towards front road view,
		one above the passenger entrance door from inside facing towards
		driver seat, one above driver door from inside facing towards the
		passenger & fourth one in the exit door from the inside facing
		towards passenger compartment. Three hi-resolution CCTV
		applicable for 7m buses. Operating temp is -10°C to 60°C. The
		camera should provide day/night functionality, automatically
		switches to night mode in low light scenes.Rear View Camera
		System to display the zone behind the vehicle shall be provided
		along with display on or near dash board.
		ix. The Reverse Parking Alert System (RPAS) shall comply with
		provisions of AIS 145. The indirect vision system shall get
		activated upon engagement of reverse gear. RPAS should give
		audio warning on reaching the critical distance available for
		reverse parking.
24	C-fate ralated itama	Subject: CN: PMAHENDRA SINGH, SERIALNUMBER=6cbeabfc6d23672f81ddda8011 6722444d66c7e96fa1c207cc28d61B8, ST=DELHI, 012,25,4 17=11000, 0 10.2: 9.4:20=5847/1052a019905082.543544c0a51c00h802.505086c927a361160 27ac4add2fc, OU=SUPPLY CHAIN MANAGEMENT, 0=ENERGY EFFICIENCY SERV ICES LIMITED, C=IN ICES LIMITED
24 24.1	Safety related items: First Aid Box	As per provision of VIVR, AIS-052 independence singh
24.1	FII'SE AIG DOX	As per AIS 052- As per AIS 052- Date: 02-12-2022

24.2	Fire extinguisher:		
	Handrails minimum	Colour contrasting and slip resistant sleeves with MS tubing of 32	
	length*diameter*height	mm dia, 3 mm thick/ powder coated Rest as per AIS 052	
24.3	above floor in mm		
24.4		Colour contrasting and slip resistant/powder	
	Handholds:	coated. 2 to 4numbers. Handholds per bay. Rest as per AIS 052	
24.5	Stanchions:	As Manufacturer design. MS tubing of 38 mm dia with sleeves, 3 mm thick/ powder coated Rest as per AIS 052	
24.6	Passengers stop request signal	High visibility bell pushes/pulley chord/touch tapeshall be fitted at a height of 1.2 ± 0.1 meter on alternate stanchions mainly for persons with disabilities.	
24.7	Window guardrails:	As per AIS 052 (for Non-AC buses)	1
24.8	Entrance/Exit Guard/Step well guard:	800 mm minimum height extending \geq 100 mm more than centre line of sitting position of the Passenger.	
24.9	Emergency exit doors, warning devices etc:	As per AIS 052/CMVR	
24.10	Front/rear door, step well lights, door open sign, Buzzers	As per AIS 052	
24.11	Towing device front/rear	Heavy duty 1.2 times (minimum) the kerb weight of the bus with 300 of the longitudinal axis of the bus. As per CMVR & IS 9760-Ring Type. Towing at Front of Bus is required and optional at Rear of Bus.	
24.12	Warning triangle	As per AIS 052/CMVR	1
24.13	Fog lighting	As per AIS 052/CMVR (Optional)	
		FRP or steel or combination of both meeting requirement of an	1
24.14	Bumpers - front and rear	energy absorbing system. As per CMVR and AIS 052.	
24.15	Passenger safety system	Mandatory allowing bus motion on doors closing and doors opening only when the bus is stopped	
25	Windows		
A	Type of window	Sliding type windowpanes for Non-AC bus and fixed glass windows for AC bus.	
В	Minimum height of window aperture (clear vision)* in mm	≥ 650 mm	
С	Clear vision includes partition between fixed and sliding glass subject to a maximum width of 100 mm	As per AIS 052	
D	Minimum height of upper edge of window aperture from bus floor	As per AIS 052	
E	Minimum width of windows (clear vision zone)	As per AIS 052	
26	Life cycle requirements of bus (whichever isearlier)	12 years or 10,00,000 Km Subject: Che MAHENDRA SINGH, SERIALNUMBER=6cbeab/c6d23672f8: Subject: Che MAHENDRA SINGH, SERIALN	ld4da80 9, O 1d6b Y SERV

27	Air conditioning system - test procedure fortype approval	Specifications, Target results, apparatus and procedure as per UBS II. - Min.20 kw for 7m - Min. 26 kw for 9m, - Min. 34 kw for 12m
A	Air curtains on entry/exit gates to avoid loss/gain of heat and or cool air when doors are frequently opened for boarding/alighting of Passenger with min air flow of 1000±50 m ³ /hr. at each gate. Type of air curtains at entry exit gates their power consumption etc. be accounted for while deciding Motor power, etc.	Optional Fitment
28	Additional requirements	
28.1	Air circulations and ventilation in driver'sarea	 An air passage/duct/roof hatch to be provided in driver area at a suitable location for proper inflow of air inside the driver cab Drivers work area to be provided with blower or suitable device (200 mm diameter fan) to ensure proper ventilation. These devices may be capable of 3 – speed adjustment
28.2	Interior noise and pass by noise	shall conform to IS: 12832:2010 or latest and IS: 3028:2018, AIS 20 or latest respectively.
28.3	Destination boards	Four Destination Board: Internal, Front, Side and Rear. (UV resistant)Alphanumeric Dual Display Technology Amber colour LED based electronic route display system in English and appropriate regional language of High Intensity illumination with automatic brightness control shall be installed at the front, rear and side of bus with GPS feed triggered display on internal display board and announcement of name of approaching bus-stop inside the bus. Destination boards should comply with IS 16490 BIS standards. (As per AIS-153 and AIS-052)
		 Information on a route and its final destination should be displayed outside the bus in large text, especially on the front and side of the bus. This information should be in bright contrasting color and be well illuminated by an external light to make it readable in the dark. The pitch of the LEDs shall be optimized to cover the maximum possible area along the length for displaying the maximum number of letters. The display shall be clearly visible in all weathers at a distance of up to 50 meters. For Inside Display: The micro-announcement shall be made for betting and next bus stop/destination synchronized with the display alternatively in local and English. The illumination system will be of modular display

29	Paint	type. The display shall be mounted behind the driver at an appropriate height for clear visibility to all passengers in the bus from all angles.Ingress Protection Grade of IP 65/55 for destination BoardsColour scheme as per STU requirement. The approval of design and shade of the paint be obtained from respective STU before painting.
		All the structural members of the bus shall be treated for corrosion prevention internally as well as externally and painted wherever required. The Polyurethane (PU) painting conforming to BIS: 13213-1991 or latest shall be used for exteriors painting of the bus including interiors wherever required. Colour shade shall match to the shades as per BIS: 5-1978 or latest. In case of Matt black paint, the same shall be tested as per IS: 13213-1991 or latest except the gloss value should be up to 30 units.
	Colour Scheme	 Colour scheme as per STU requirement. The approval of design and shade of the paint be obtained from respective STU before painting. Exterior, interior colour schemes and logo/ graphics to be applied will be as notified by Public Transport Authority. The buses must be recognizable as environmentally friendly battery buses. Buses shall bear CESL Logo and branding as provided by CESL. Logos shall be lodged onto the bus body as per requirements of CESL.
30	Jack	As per CMVR & bus code AIS052
31	Fire Detection & alarm System (FDAS)	As per AIS -153
32	Tool Kit	As per CMVR & bus code AIS052
33	GVW	As per CMVR Rules & its amendments from time to time.
34	Fire retardancy	All material used inside the bus, should be fire retardant as per IS 15061:2002

Note:

- I. The Bidder shall submit Technical Specification of Components/Systems of Electric Propulsion system and submit the test certificate for these components as per the prescribed standards from the notified testing agencies like ICAT, CIRT, ARAI, VRDE, etc.
- II. All electrical wiring harness and accessories used on electric bus shall comply necessary automotive safety standards.
- III. All units & electrical accessories and wiring harnesses use on the bus shall be so mounted that they are easily accessible and can be removed without disturbing other components. Further these accessories and wiring harnesses shall be well protected to prevent ingress of water.
- IV. Mandatory Certification Compliance and acceptance tests for Safety Components, Batteries, Buses and Requirements for Battery Charging Infrastructure Systems etc. by competent authority to be obtained.
- V. Mandatory Certification Compliance for Safety Components, Batteries & Buses should be met
- VI. The Bidder shall ensure the fitment of all electric propulsion system components on the bus confirming to National/International Standards. In case if the standards are not available, then it should confirm to the company's standard based on sound technical information and Engineering practices.
- VII. The Bidder shall undertake type approval testing of Traction Batteries pack fitted on the bus as per CMVR notified standard and submit copy of Approved certificate.
- VIII. The Buses shall meet all the above technical specification requirements prescripted and the buses meet all the requirements prescripted and the buses meet all the buses meet all
- IX. The Bidder shall monitor the operation of these Buses and sort out the operational issues, if any.

- X. The Bidder shall ensure safe & successful operation of these buses. In case of breakdown in these vehicle systems or battery charging infrastructure system, the Bidder shall immediately rectify the defects / replace parts and make the Buses, vehicle systems or charging system operational as the case may be.
- XI. Bus manufacturer needs to provide lifetime warranty for the battery, electric motor, and controller. Smaller repairs had to be resolved in six hours while system faults with battery, electric motor and controller have to be corrected within 48 hours. The warranty also requires the manufacturers to replace batteries when the state of health (SOH) falls below 80 percent. The bidder shall provide quarterly reports on the SoH of battery packs of each bus. This will be measured at the charger level or by a certified Ammeter by the energy (measured Ah) uptake of the battery packs while charging from 25% to 100% SoC. The relative deterioration of energy uptake of the battery packs will be used to determine the SoH of the battery to be calculated at energy uptake in quarter (kWh)/ energy uptake in first quarter post COD.
- XII. Manufacturers need to meet high safety standards for battery packs. These standards include a protection level that is no less than IP67—which represents a high water and dustproof battery pack—and satisfactory operation safety in extreme temperatures ranging from 0 to 65°C.
- XIII. Bidder to submit the type approval certificate for the allocated bus at the time of delivery of buses to the respective cities.
- XIV. Camera Based Passenger Counting System should be Bi Directional Counting on a Definable Line (Polygon), Variable position of counting lines, Adaptation to on-site requirement, No Double Counting, Automatic Compensation for interference from swinging and sliding doors, It shoud also have real-Time Video Streaming or recording of video files to external storage media, Start and Stop function via door contact, No interference with other functions. The system shall achieve minimum 95% counting accuracy. The system should be intergrated through ITS OBITS to the backend of the System(s) of the Authority. The cost of such integration shall be the responsibility of the Bidder during the Contract Period.
- XV. Camera Based Passenger Counting System should generate Total Passenger Report- A basic report to analyze passenger counts on a single vehicle only. Time resolution shall be by day, week, month or year. Option to select a range of dates shall also be available; default time interval shall be by day with maximum 90 day resolution allowed. Report output shall be displayed on screen as tabular, chart or both. Export feature shall be of the tabular output only, downloadable as a CSV file.
- XVI. Integration to Existing ITMS/AFC System: Bidder shall provide the complete ITS OBITS system as specified herein above in the Buses. The bidder shall also ensure to supply equipment compatible with existing ITS System of Authority so as to enable smooth integration. Bidder is responsible for regular maintenance ITS OBITS equipment installed by throughout the Contract Period. The Contractor and Authority agree to share interfacing protocols and Active Programming Interface with each other for smooth integration of the ITS OBITS equipment provided by Bidder to the Authority's ITMS. The Authority can mount any equipment in the Buses provided by the Bidder at its own cost and the Bidder shall be responsible for the safety and security of such equipment during the Contract Period.



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Table 2: Technical specifications of Electric bus Compliant with the requirements of CMVR AIS:052 Type -I ofstandard BRTS electric bus (applicable only for 150, 12m BRTS electric buses for Surat under Lot 3)

S No.	Description	Technical Specification
	Introduction	i. The minimum Technical Specifications have been set out for the following types of Stage Carriages:
		Standard Floor (900 mm) Fully Built AC Pure Electric Standard Size (12 Metre) Buses.
		ii. The word "bus" shall mean the New Stage Carriage to be used for the project.
		iii. The word "bus" shall also mean a bus powered exclusively by an Electric Motor whose traction energy is supplied exclusively by traction battery installed in the vehicle suitable for operations in city conditions.
		iv. The bidder shall comply with all applicable Central, State and local laws (including Acts, Rules & Regulations).
		 v. The word "Bus" wherever it has been used in specifications means the "Battery Operated Bus". The bus in general shall meat all applicable Central Motor Vehicle Rules, 1989 as amended (hereinafter referred to as "CMVR"), norms for safety applicable on the date of manufacture and Bus Code AIS 052 and any revisions thereof [hereinafter called Bus Code] AIS-049, AIS-038 and AIS-153 all amended up to date as also those related
		to easy passenger accessibility including for persons with disabilities (PWDs) and all other norms and regulations on high
		 vi. Where there is conflict between the requirement as per any applicable law in force and the requirement emanating from these specifications whichever of these two is of superior/ higher standard shall prevail. Also, any specifications superior to the ones set out as Minimum Technical Specifications shall meet requirements of the contract.
		 vii. Bus Model should be in compliance with CMVR & Bus Code and approved as per AIS: 052+AIS:153+ Annexure 3 of UBS II +FAME II by any Indian Government testing agency like ARAI, ICAT, NATRAX, CIRT etc.
	Statutory requirements	The eBus shall be designed and manufactured in accordance with the specifications & AIS-052 and UBS-II: Code of Practice for Bus Body Design & Approval [Bus Code], AIS – 049, AIS – 038 and AIS-153 all amended up to date as also those related to easy passenger accessibility including for persons with disabilities (PWDs).
		eBus shall be type approved as per CMVR requirements
	FAME- II compliance	Bus should be compliant with FAME-II requirement
	Electric propulsion system & its requirements.	Electrically propelled system should design to meet "Code of practice for Electric Propulsion System" performance as per AIS 048 & AIS 049.
1		Signature: :
		conditioning.

		Electric propulsion system and other sub-system should be able to operate efficiently at ambient temperatures / environmental
	Type of Battery	conditions Advance chemistry battery as defined by Ministry of Heavy Industry
2		 vide Notification No S.O. 1472(E) dated 28th March 2019 as amended time to time. Manufacture should use advance new generation batteries. Battery should cerified as per AIS-038 Rev-02 Amendment 3 For Human Safety, Battery should also be cerified with Office memorandum F.NO. 01(02) /2022 –AEI (20555) Dated 28th October 2022.
3	 Battery Pack Rating and Energy/Power Minimum & Maximum Charging% Motor/s Capacity Charging standard Charging standard in high voltage system 	 (i) No. of Motors / Batteries as per Manufacturer's design (ii) Location of motor and batteries as per Manufacturer's design considering minimal maintenance and easy of charging (iii) Electric Regeneration is required (iv) Charging Mode as per Manufacturer's design. Charging Time less than 5 hours- overnight charging. (v) Safety–Short circuit/ Over Temperature / Lightening Protection is mandatory. (vi) CCS 2.0- Combined Charging System.
3.1	Battery Cooling System	Liquid Cooling system
3.2	Battery Life	Battery to be used in mobility application upto 80% SoH. OEMs to replace battery when SoH falls below 80%.
3.3	Battery Charging System	DC fast charging by CCS 2.0
3.4	Electric Drive Motors	Optimal Rating, Type, Make, Model of Electric Drive Motors with minimum maintenance. Motor should be able to operate efficiently at ambient temperatures of approximately 0 to 50 degrees centigrade, humidity level from 5% to 100%.
3.5	Electric propulsion system motor rating / powersufficient to provide Rated Performance at GVW in Stop/ Start In Urban Operation:	
a.	Rated Performance at GVW in Stop/ Start In Urban Operation	Attain bus speed of 70 +/-5 kmph (without speed limiter) at GVW load, air conditioning and other sub-system operational. Attain Minimum maximum speed of 70 kmph (without speed limiter) and 50 kmph (with speed limiter) at GVW load and air conditioning system operational Maximum rated speed should meet the requirement as per CMVR
b.	Acceleration (Meter / Sec. ²)	≥0.8
c.	Bus Speed of $0 - 30$ kmph in Seconds.	≤ 10.5 seconds
d.	Maximum Speed	Maximum speed without speed limiter to be 70 +/- 5 kmph as at 3.5.a. 3.5.a. Maximum speed with speed limiter to be 50 kmph as at 3.5.a. Speed Limiter for the above limit is financated to the speed Limiter for the above limit is financated to the speed Limiter for the above limit is financated to the speed Limiter for the above limit is financated to the speed Limiter for the above limit is financated to the speed Limiter for the above limit is financated to the speed Limiter for the above limit is financated to the speed Limiter for the above limit is financated to the speed Limiter for the above limit is financated to the speed Limiter for the above limit is financated to the speed Limiter for the above limit is financated to the speed Limiter for the speed Limiter for the above limit is financated to the speed Limiter for the above limit is financated to the speed Limiter for the above limit is financated to the speed Limiter for the above limit is financated to the speed Limiter for the above limit is financated to the speed Limiter for the above limit is financated to the speed Limiter for the above limit is financated to the speed Limiter for the above limit is financated to the speed Limiter for the above limit is financated to the speed Limiter for the above limit is financated to the speed Limiter for the above limit is financated to the speed Limiter for
e.	Grade ability from Stop at GVW	17%

Rated HP/torque	Rated HP at low rpm and Maximum torque required at lower
preferably at lower rpm	range of motor RPM and spread over a wider range of RPM
range	Sufficient torque to meet the acceleration, gradeability, AC and
Downey we environments for	range requirement.
-	Required to be provided by traction battery of electric propulsion
	system
-	
*	Standard Bus (12 m) AC: 1.3 kWh/km
condition (Annual	
Pass bye noise norms	As per CMVR & AIS:052
	Transmission system to be fitted with a mechanism which makes
Operational safety	it possible to engage reverse gear only when vehicle is stationary
Front Axle	Heavy duty reverse Elliot type axle suitable for bus floor height
	Single reduction or in wheel Hub Reduction, hypoid gears, full
Rear Axle	floating axle shafts (optional) with optimal gear ratios suitable for
	urban operations.
Suspension (Front & Rear)	Air suspension at Front & Rear
Anti-roll bars/stabilizers	Required at front and rear
	If independent front suspension is used, anti-roll bar is not required.
	Hydraulic double acting 2 at front & 2/4 at rearElectronically controlled air suspension system
Controls (optional)	Power steering with height and angle adjustment. As per
Steering	manufacturers design UBS-II / AIS 052/CMVR.
	Automatic transmission.
Transmission	
Brakes	As per manufacturers design
	Mandatory ABS with Disc at front and Drum at rear OR disc brake at
	front and rear.
Braking system	In case of Brake Failure provision should made for obtaining
8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	effectiveness of service brake
	Graduated hand controlled, spring actuated parking brakes acting on rear wheels.
Electrical system for	
-	24V DC
Batteries (ancillaries	Low maintenance type leads acid batteries for 24 V & Min 100Ah
equipment and light and	
-1	
light signalling devices)	system- performances as per BIS: 14257- 1995 (latest).
light signalling devices) Electrical wiring &	Multiplexing type As specified separately underITS
light signalling devices)	Multiplexing type As specified separately underITS specifications and conforming to IP 67.
light signalling devices) Electrical wiring & controls -type	Multiplexing type As specified separately underITS specifications and conforming to IP 67. It should be as per UBS-II and AIS 153.
light signalling devices) Electrical wiring &	Multiplexing type As specified separately underITS specifications and conforming to IP 67. It should be as per UBS-II and AIS 153. Electronic type duly approved /certified as per AIS – 018/2001 or
light signalling devices) Electrical wiring & controls -type	Multiplexing type As specified separately underITS specifications and conforming to IP 67. It should be as per UBS-II and AIS 153.
light signalling devices) Electrical wiring & controls -type Speed limiting device	Multiplexing type As specified separately underITS specifications and conforming to IP 67. It should be as per UBS-II and AIS 153. Electronic type duly approved /certified as per AIS – 018/2001 or latest, tamper proof and be adjusted to applicable speed limit
light signalling devices) Electrical wiring & controls -type	Multiplexing type As specified separately underITS specifications and conforming to IP 67. It should be as per UBS-II and AIS 153. Electronic type duly approved /certified as per AIS – 018/2001 or latest, tamper proof and be adjusted to applicable speed limit Steel Radial Tube-less Size and performance as per Statebal contemposation and the stat
light signalling devices) Electrical wiring & controls -type Speed limiting device	Multiplexing type As specified separately underITS specifications and conforming to IP 67. It should be as per UBS-II and AIS 153. Electronic type duly approved /certified as per AIS – 018/2001 or latest, tamper proof and be adjusted to applicable speed limit
	range Power requirements for Air conditioning system ITS, etc Energy Consumption of e- Bus when tested as per AIS 039 (latest revision) with AC ON and AC OFF condition (Annual Average) Pass bye noise norms Operational safety Bus Characteristics Front Axle Rear Axle Suspension (Front & Rear) Anti-roll bars/stabilizers Shock absorbers Controls (optional) Steering Transmission Brakes Braking system Electrical system for auxiliary devices Batteries (ancillaries

		The minimum range (autonomy) on single charge of 200 kms (at 80% SoC) for 12 m bus duly certified as per AIS 040 standard by Indian	
		Government testing agency (ARAI/ICAT/CIRT/ VRDE etc.) along with type approval certificate at GVW and additional AC load (in case of AC buses) along with all system operational	
14.1	Bus characteristics	12- Meter (Standard)	
А	Overall length (excluding bumper)	11900 - 12000	
В	Overall width (sole bar/floor level- extreme points)	2600 (maximum)	
С	Overall height (unladen - at extreme point)	As per CMVR	
D	Floor Height above ground	900 mm (tolerance -20)	
Е	Wheelbase	As per CMVR: The wheel base must accommodate two (2) BRTS doors on the centre on Right Hand Side (RHS). Each door shall be having aperture of minimum 900 mm and if required with a partition of maximum 400 mm between two BRTS doors. The Bidder/OEM can offer any wheel base accommodating above requirements however without compromising on the passenger seating capacity specified	
F	Front Overhang	As per CMVR- Front Overhang adequate to accommodate front gate ahead of front wheel.	
G	Rear Overhang	As per CMVR; < 60% of wheel base	
14.2	Maximum turning circle radius (mm)	As per CMVR	
14.3	Clearances (mm)	1	
А	Minimum Axle clearance (mm)	Minimum 190 mm	
В	Wheel area clearance (mm)	> 220 mm for parts fixed to bus body &> 170 mm for the parts moving vertically with axle.	
С	Minimum ground clearance (un-kneeled) at GVW	Within the wheelbase not less than 240mm.	
14.4	Angles (degrees)		
А	Angle of approach (unladen)	Not less than 8.5°	
В	Angle of departure (unladen)	Not less than 9°	
с	Ramp over angle (half of break-over angle)	Not less than 4.8°	
15	Bus Gates/Doors		
15.1	Entry exit gates with doors		
А	Operating mechanism	6722444dec-7296fa1c207cc28661b8, ST=DELHI, OID.2.5.4.17=110003 ID.2.5.4.20=5e8477fb32abf99668823434cba31cbd6feb2b686c927a5e 272cb4ddfc, Oul=SURRY CHANI MAMAGEMENT, On ENERGY EFFC/IENC	1d4da8 3, O e1d6b Y SERV
В	Maximum opening / closing time in seconds per operation	4	

С	Positions of door controls	As per AIS 052
D	Passenger safety system - allowing bus motion only on doors	\checkmark
	closing	
15.2	Entry/Exit door – between wheels (near side/non driver side);	Options with regard to location of the doors to be provided by the Selected Bus Operator/ Chassis manufacturers /Bus Body builder
А	Door aperture in mm	1200 mm (Minimum) as per AIS 052
B	Clear door width (fully opened)	$1000 \pm 50 \text{ as per AIS } 052$
С	Door height	1900 mm as per AIS 052
D	Fixed partition between gates - full height	Required only if the both the service doors to be provided in the middle of the wheelbase
	Width of partition in mm (If required)	Maximum 400 mm adequate to support positioning of conductor seat with piped support on both sides. Also suitable as hand hold for boarding/ alighting pax
	(II required)	Preferably Vertical centre line of the partition is centre
	Location of partition	line of wheel base.
Е	Positioning doors with respect to partition.	One on each side of partition
F	Number of gates	2 (two)
	Positioning doors	Option 1: Two service doors (passenger entrance / exit) with steps, separated with an interspacing partition of 400 mm width (from the central line of the nearside)
		Or Option 2: Front door ahead of front axle and rear door ahead of Central Line of rear axle. The distance between rear edge of the rear door and central line of rear axle should be minimum 1500 mm.
G		Or
0		Option 3: Front Door behind front axle and rear Door behind rear axle Two service doors with steps would be required to be provided with specifications as indicated in the summarized specifications in part II on the near side (on the kerb side wall).
		The Selected Bidder is required to provide options with regard to location of the LHS service doors prior to inspection of Prototype bus.
15.3	Location of Entry / exit gates on driver side (off- side)– between wheels	Location on off- side/driver side/ BRTS door (to match height of station platform without steps and synchronizer with the recent code (17-11000 0 line of doors at BRT5 Stations) 224 420 56688234344cba31cbd6/reb2b6966927854166 D25.54.20=500420047(b32abf996688234344cba31cbd6/reb2b6966927854166 224 50042004700420047004200470040004700400040
	Door aperture (without	Minimum 1200 for for User ID: mahendra.singh Seral No: 162840 PB: mahendra.singh(Mahendra Singh) Date: 02-12-2022

В	Clear door width (fully opened)	1000 ± 50 each door	
С	Door height	1900 mm (minimum)	
D	Fixed partition between gates – full height	Optional. The Bus operator to provide options for fixed partition after accommodating required width of BRTS doors and seating arrangement as per the requirement of the RFP	
D	Width of partition in	400(maximum)	
	mm	Vertical centre line of the partition is centre line of wheel base	-
	Location of partitions between exit and entry gates on both sides.		
E	Positioning doors with respect to partition.	One on each side of partition	
F	Number of gates	2	
15.4	Maximum first step height (mm) from ground – unladen position in buses with:		
А	Stepped type entry on near side doors	400 mm	
В	No step entry/level entry (at station platform height)on driver side	900 ±10 mm	
15.5	Maximum height (mm) of other steps on near side gates	250 mm – In no case, bus floor height should go beyond the maximum floor height.	
А	Front door – ahead of fixed partition	250 mm	
В	Rear door – behind partition	250 mm	
	Ramp / suitable mechanism for wheel chair access at	Not required	
15.6	the near side gates,		-
A	Dimensions	As per UBS-II	-
В	Material		-
С	Load carrying capacity		-
D	Device to prevent the wheel chair roll off the sides when the length exceeds 1200mm		
Е	Device to lock wrapped up ramp	Signature :- Subject : CN=MAHENDRA SINGH, SERIALNUMBER=6cbeabfc6d23672f8: 6722444d66cr296fa1c207c228d61b8, 5T=DELH, OID.2.5.4.17=11000: ID.2.5.4.20=5e8477f52ad996682824344cba3Loddfe2b2666227a54	Id4da801 , O 1d6b
F	Kneel ramp control: (deleted)	NA	Y SERV
	Requirement for		

~			
G	passenger with		
	limited mobility		
	Wheel chair		
	anchoring	\checkmark	
Ι	– minimum for one		
	wheel chair		
	Priority seats –		
II	minimum 2 seats		
	Stop request- on		
	pillars-selected for	\checkmark	
III	operational		
-	convenience		
	Emergency	As per AIS 052	
	doors/exits		
Н	or apertures		
11	(numbers)		
	Dimensions in mm	As per AIS 052	
	Passenger safety		
	system – allowing		
	bus motion on doors	Mandatory	
	closing and doors	Intandator y	
Ι	opening only when		
1	the bus is		
	stopped Power operated	+	
	Power operated service door –	A A 10 0.50	
		As per AIS 052	
	construction &		
	control system of a		
	power operated		
J	service door be such		
	that a Passenger is		
	unlikely to be		
	injured/trapped		
	between the doors		
	while closing.		
K	Door components	As per AIS 052	
	Door locks/locking		
L	systems/door	As per AIS 052	
L	retention items		
	Others	Buses should have handrails & footlights installed for making	
		them accessible for disabled passengers.	
		An appropriate number of alighting buzzers should be provided	
		in position that are easily accessible for seated or standing	
Μ		passengers.	
		The push button of an alighting buzzers should be clearly	
		visible: of adequate size, installed at 900 mm to 1200 mm from	
		the bus floor level and display the information in Braille/raised	
		numbers as well.	
Ν	Door hinges	As per AIS 052	
16	Bus design	Signature :-	d4da801
16.1	Design type approval	As per CMVR, AIS; $0.02 + AIS$: $17224415ec19863207cc2846146, 57-89101012.5.4.17=110003$ c	0 Id6b SERV
		OEM should enour GI tubular structure dra.singh	
	D	To meet the requirements of Annexure 32 of UBS II + AIS;052 +	
16.2	Bus structure - materials specifications etc.	AIS:153	

A B B I 16.4 I A B C I D I E I G I H I 16.4 I B I C I B I C I	Insulation Roof and side Battery Pack compartment Aluminium extruded sections for: Rub rail Decorative moulding Wire cover Wearing strip Foot step edging Panel beading Window frame Roof grab rail brackets Floor type/Materials etc. Type of Floor Steps on floor Maximum floor slope	Exterior panels: as per OEM design FR grade material as per IS 15061 FR Grade material glass wool, PU foam or thermocol: As per AIS:052. Aluminium extrusion IS 733/1983 or better Uniform floor inside bus without steps; As per AIS:052 requirements. No steps except for near side gates. As per AIS:052 requirements. As per Bus AIS:052 Minimum 15mmthickness phenolic resin bonded densified laminated compressed wooden floor board (both side plain surface) having density of 0.95 - 1.25 gms/cc conforming to IS
B 16.4 A B C D E F G H 16.4 A B C	Battery Pack compartment Aluminium extruded sections for: Rub rail Decorative moulding Wire cover Wearing strip Foot step edging Panel beading Window frame Roof grab rail brackets Floor type/Materials etc. Type of Floor	FR Grade material glass wool, PU foam or thermocol: As per AIS:052. Aluminium extrusion IS 733/1983 or better Uniform floor inside bus without steps; As per AIS:052 requirements. No steps except for near side gates. As per AIS:052 requirements. As per Bus AIS:052 Minimum 15mmthickness phenolic resin bonded densified laminated compressed wooden floor board (both side plain
B 16.4 A B C D E T G H 16.4 A B C C	compartment Aluminium extruded sections for: Rub rail Decorative moulding Wire cover Wearing strip Foot step edging Panel beading Window frame Roof grab rail brackets Floor type/Materials etc. Type of Floor	As per AIS:052. Aluminium extrusion IS 733/1983 or better Uniform floor inside bus without steps; As per AIS:052 requirements. No steps except for near side gates. As per AIS:052 requirements. As per Bus AIS:052 Minimum 15mmthickness phenolic resin bonded densified laminated compressed wooden floor board (both side plain
B 16.4 A B C D E T G H 16.4 A B C C	compartment Aluminium extruded sections for: Rub rail Decorative moulding Wire cover Wearing strip Foot step edging Panel beading Window frame Roof grab rail brackets Floor type/Materials etc. Type of Floor	Aluminium extrusion IS 733/1983 or better Uniform floor inside bus without steps; As per AIS:052 requirements. No steps except for near side gates. As per AIS:052 requirements. As per Bus AIS:052 Minimum 15mmthickness phenolic resin bonded densified laminated compressed wooden floor board (both side plain
16.4 A B C D E F G H 16.4 A B C	Aluminium extruded sections for: Rub rail Decorative moulding Wire cover Wearing strip Foot step edging Panel beading Window frame Roof grab rail brackets Floor type/Materials etc. Type of Floor Steps on floor	Uniform floor inside bus without steps; As per AIS:052 requirements. No steps except for near side gates. As per AIS:052 requirements. As per Bus AIS:052 Minimum 15mmthickness phenolic resin bonded densified laminated compressed wooden floor board (both side plain
A B B C D C E F G H 16.4 A B C C C	sections for: Rub rail Decorative moulding Wire cover Wearing strip Foot step edging Panel beading Window frame Roof grab rail brackets Floor type/Materials etc. Type of Floor Steps on floor	Uniform floor inside bus without steps; As per AIS:052 requirements. No steps except for near side gates. As per AIS:052 requirements. As per Bus AIS:052 Minimum 15mmthickness phenolic resin bonded densified laminated compressed wooden floor board (both side plain
A B C D E F G H 16.4 A B C	Rub rail Decorative moulding Wire cover Wearing strip Foot step edging Panel beading Window frame Roof grab rail brackets Floor type/Materials etc. Type of Floor Steps on floor	Uniform floor inside bus without steps; As per AIS:052 requirements. No steps except for near side gates. As per AIS:052 requirements. As per Bus AIS:052 Minimum 15mmthickness phenolic resin bonded densified laminated compressed wooden floor board (both side plain
B C D E F G H 16.4 A B C	Decorative moulding Wire cover Wearing strip Foot step edging Panel beading Window frame Roof grab rail brackets Floor type/Materials etc. Type of Floor Steps on floor	Uniform floor inside bus without steps; As per AIS:052 requirements. No steps except for near side gates. As per AIS:052 requirements. As per Bus AIS:052 Minimum 15mmthickness phenolic resin bonded densified laminated compressed wooden floor board (both side plain
C D D E F G G H 16.4 A B C	Wire cover Wearing strip Foot step edging Panel beading Window frame Roof grab rail brackets Floor type/Materials etc. Type of Floor Steps on floor	Uniform floor inside bus without steps; As per AIS:052 requirements. No steps except for near side gates. As per AIS:052 requirements. As per Bus AIS:052 Minimum 15mmthickness phenolic resin bonded densified laminated compressed wooden floor board (both side plain
D E F G H 16.4 A B C	Wearing strip Foot step edging Panel beading Window frame Roof grab rail brackets Floor type/Materials etc. Type of Floor Steps on floor	Uniform floor inside bus without steps; As per AIS:052 requirements. No steps except for near side gates. As per AIS:052 requirements. As per Bus AIS:052 Minimum 15mmthickness phenolic resin bonded densified laminated compressed wooden floor board (both side plain
E F G H 16.4 A B C	Foot step edging Panel beading Window frame Roof grab rail brackets Floor type/Materials etc. Type of Floor Steps on floor	Uniform floor inside bus without steps; As per AIS:052 requirements. No steps except for near side gates. As per AIS:052 requirements. As per Bus AIS:052 Minimum 15mmthickness phenolic resin bonded densified laminated compressed wooden floor board (both side plain
F G H 16.4 A B C	Panel beading Window frame Roof grab rail brackets Floor type/Materials etc. Type of Floor Steps on floor	requirements. No steps except for near side gates. As per AIS:052 requirements. As per Bus AIS:052 Minimum 15mmthickness phenolic resin bonded densified laminated compressed wooden floor board (both side plain
G	Window frame Roof grab rail brackets Floor type/Materials etc. Type of Floor Steps on floor	requirements. No steps except for near side gates. As per AIS:052 requirements. As per Bus AIS:052 Minimum 15mmthickness phenolic resin bonded densified laminated compressed wooden floor board (both side plain
H 16.4 A B C	Roof grab rail brackets Floor type/Materials etc. Type of Floor Steps on floor	requirements. No steps except for near side gates. As per AIS:052 requirements. As per Bus AIS:052 Minimum 15mmthickness phenolic resin bonded densified laminated compressed wooden floor board (both side plain
16.4 A B C	Floor type/Materials etc. Type of Floor Steps on floor	requirements. No steps except for near side gates. As per AIS:052 requirements. As per Bus AIS:052 Minimum 15mmthickness phenolic resin bonded densified laminated compressed wooden floor board (both side plain
A B C	Type of Floor Steps on floor	requirements. No steps except for near side gates. As per AIS:052 requirements. As per Bus AIS:052 Minimum 15mmthickness phenolic resin bonded densified laminated compressed wooden floor board (both side plain
A B C	Steps on floor	requirements. No steps except for near side gates. As per AIS:052 requirements. As per Bus AIS:052 Minimum 15mmthickness phenolic resin bonded densified laminated compressed wooden floor board (both side plain
С		As per Bus AIS:052 Minimum 15mmthickness phenolic resin bonded densified laminated compressed wooden floor board (both side plain
	Maximum floor slope	Minimum 15mmthickness phenolic resin bonded densified laminated compressed wooden floor board (both side plain
		laminated compressed wooden floor board (both side plain
D	Floor surface material	3513 (Part- 3): type VI 1989 or latest. The flooring should also be boiling water resistant as for marine board BIS:710-1976/ latest and fire retardant as per BIS:5509-2000 (IS15061:2002). The chequered plywood 15mm thick is also allowed as per the relevant standard for the quality and fire resistance/flammability.
E	Anti – skid material	3 mm thick anti-skid type silicon grains ISO 877/76 for colour, IS:15061:2002 for FR grade.
	Safety glasses and	
	fittings:	
	Front windscreen (laminated) glass:	Single piece laminated safety glass, plain, lateral/curved with curved corners with PVB film IS 2553 (Part-2)-1992/latest. Standard designs for each variant of buses to be followed
D	Laminated Glass Specifications	Total Thickness = 8.76 mm ± 0.2 mm Clear Interlayer
C	Rear windscreen: (wherever provided)	Single piece flat/curved toughened glass- plain/flat/curved at centre & curved at cornersIS:2553 (Part-2)–1992/latest revision
D	Side windows:	Single piece flat /curved pasted toughened glass as per IS 2553 (Part-2)-1992/latest revision. Fixing by EPDM profile OR pasting
E	Side Window /Rear Windshield Glass specifications	Toughened glass IS2553 (Part-2)-1992/latest revision Thickness = 4.8-5.3mm
F	Other glasses - material specs, thickness etc. (If Provided).	Toughened as per IS:2553 (Part-2)–1992/latest revision of Thickness = 4.8- 5.3 mm thickness
	Safety glass	As per AIS 052/CMVR
	Rear view mirrors	As per AIS 052/CMVR Signature :- Signature :
16.6	Seating and gangway	Subject: CMP manerol/PA Sindary, Service Machumerer Poccessor Case 26 / 2019 10.2.5.4.200=56477/D320196668223044cba31cbdfeb26966237265 27acb4dd2fc.0U=SUPRY CHAIN MANAGEMENT, 0=ENERGY EFFICIENC ICES LIMITED, C=UN User ID : maherdra.singh Serial No : 1628840 Serial No : 1628840 Serial No : 1628840 Serial No : 1628840
16.6.1	etc Passenger seating for	As per AIS 052

	AC deluxetype-1 buses	
٨	Seat layout	
A	1	As per AIS 052
В	Deleted	
	Seat area/seat space per	
C	Passenger	400*350
С	(width*depth) mm	
D	Seat pitch – minimum	As per AIS 052
D	in mm	-
	Minimum backrest	
	height-from floor to top	As per AIS 052
	of seat/headrest	-
Е	1	
	Seat base height-	
	distance from floor to	
	horizontal front upper	As per AIS 052
	surface of seatcushion	
	mm.	
	Seat back rest height in	375
	mm	
F	Torso angle (degrees)	Minimum 12 ^o
		'PPLD/LDPE' moulded AIS:023 & AIS 052 bus code for
G	Seat materials	performance
	Seat frame structure	Frame Structure of ERW steel tube
Н	material where	
п	required:	
	Free height over	More than 900
Ι	seating	
1	position in mm	
	Seat base height:	As per AIS 052
	Clearance space for	
J	seated Passenger facing	Minimum 350
J	partition mm	
L	Area for seated	400*350
L	passengers (sq.mm.):	
М	Area for standee	As per AIS 052
IVI	passengers (sq.mm.):	
	Number of seats	32 - 34 + Wheelchair+ Driver
Ν	including one for wheel	Location of wheel chair space shall be clearly highlighted and be
IN	chair	visible using the standard symbols for wheel chair accessibility.
	Number of standees	
0	(calculation as per AIS	As per AIS 052
U	052)	Min. standee for 12 m bus = 23 numbers
		Optional In this case seat belts provision as per AIS 052 / any
Р	Seats side facing	other standard
Г	location	
Q	Seat back rest	Fixed Signature :- Subject : CN=MAHENDRA SINGH, SERIALNUMBER=6cbeabfc6d23672f82 642344dfecte05fabc307c728461b8, ST=DELHL, 01D-2 5.4, 17=110003
		Not necessary except diver seat deciver of the provided and the seat deciver of the se
	Seat belts & their	aisle (performance etc. as per A 5 20 20 20 20 20 20 20 20 20 20 20 20 20
R	anchorage	Date : 02-12-2022

	Defermance & strength	
	Performance & strength	1
S	requirements	
	of:	
I	Driver seat	As per AIS 023
II	Passenger seats	As per AIS 023
16.6.2	Gangway:	
	Minimum interior head	1900 mm including that in the rear overhang area.
А	room (centre line of	
	gangway) in mm	
Ι	At front axle:	
		As per AIS 052
II	At rear axle:	As per AIS 052
III	Other areas	As per AIS 052
	Gangway Width (mm)	
	from gates to	
	longitudinal space	(Refer figure-1 of UBS II) minimum 700 mm
В	between rows of seats	
-	(Access to service	
<u> </u>	doors)	
		(Refer figure-1 in UBS II) minimum 700 mm excluding armrests
		(armrests are not required) and including stanchions- will be measured from seat edge to seat edge
~	Gangway Width (mm)	measured from seat edge to seat edge.
C	in longitudinal space	
D	between rows of seats	A ATO 050
<u> </u>	Driver's working space Driver's seat	As per AIS 052 As per AIS 023 & AIS 052
	Corrosion prevention &	
	painting	As per AIS 052
	Corrosion prevention	
	treatment	
	Internal surfaces of	
	structural members	
	External surfaces of	
	structural members	
	After drilling	As per clause 3.17 of AIS 052
	holes/welding	
	Inter metallic galvanic corrosion prevention	
E F	COITOSION prevention	
	Primer coating	
<u> </u>		
	Painting:	
	Wind screen wiping	
	system wiper:	
	Wiper motor:	As per CMVR: IS 15802
	Wiper arm/Wiper blade	•
в	Washing system	Signature :- Subject : CN=MAHENDRA SINGH, SERIALNUMBER=6cbeabfc6d23672f81d4da84
	Electrical system	As per CMVR and as per AIS $052544466c7e96ta1c207cc28d61b8, S1=DELHI, OID.2.5.4.17=110003, O$
	Electrical cables:	Copper conductors with fire retardant as per IS/ISO:6722:2006 as
		per appropriate Mass. Conductor cross- section varying as per
		circuit requirements, minimum cross- section 0.5 sq. mm. Quality

19.2	Conductor cross section	marking may also be as per equivalent or better European, Japanese, US standards, Conforming to IP 67 water& air-tight for traction battery. For Bus Body Building IS 2465/Multiplex wiring /ISO 6722
19.3	Safety requirements of electrical	
А	Fuse	As per AIS 052 – fuse of rated current 1.5 times the load current of electrical equipment. Necessary in every electrical circuit
В	Isolation switches for electrical circuits where RMS value of voltage exceeds 100 volts	As per AIS 052- Isolation switch required for each such circuit
С	Location of cables away from heat sources	As per AIS 052- Required for each such circuit
D	Type approval of circuit diagram as per standards related to electric equipment's/wiring	As per AIS 052 – Required for all items
Е	Battery cut - off switch (isolator switch):	As per AIS 052
F	Cable insulation with respect to heat	As per AIS 052
G 19.4	Power supply cut – off switch (isolator switch): Lighting - internal &	Heavy-duty type capable of carrying & interrupting total circuit load.1 each near battery/driver All lights including interiors should be LED
	external and illumination	Head Lights can be bulb type. Other information as per AIS 052 and AIS 153
19.5	Illumination requirements/performance of:	
А	Dash board tell-tale lighting/control lighting	As per AIS 052 & bulbs tested for photometry as per IS 1606:1996
В	Cabin lighting - luminous flux of all lampsfor cabin Lighting	As per AIS 052 and UBS II with illumination level of \geq 100 lux & \leq 200 lux
С	Passenger area lighting - luminous flux of all lamps for Passenger area lighting	As per AIS 052 and UBS II with illumination level of \ge 100 lux and \le 200 lux
20	ITS enabled bus	 i. The Contractor shall procure buses as defined by the Authority which shall also include various but not limited to ITS System as defined by UBS II, AIS 153, AIS 140 Specifications and any amendments issued thereof. Some of the equipment's and their quantities are listed below: Specifically requirements but not limited to, include: Signature :-Subject : CN=MAHENDRA SINGH, SERIALNUMBER=6cbeab/c6d23672F8 ddda6 C72244dd6c72961a207C2080h20, ST=DELH, 01D, 25, 41, 7=110001, 0 Sr. Typenf 12 USE MATER 12 USE 10 USE 10

1	Passenger Display Boards as per IS 16490 specifications	4	Internal, Front, Side and and Rear
2	Speaker	2	
3	Amplifier	1	
4	Fully ITS compliant	1	As per IS 16490 specifications and amendment 2
5	DDU	1	As per IS 16833 annexure C Amendent 2
6	CCTV Camera 4G eSIM with MNVR	4	Internal and External with 30 days backup storage as per IS 16833 annexure C. 4 or 8 channel minimum 2 TB DVR for recording
7	Panic Button		As per AIS 140 Specifications
8	Camera based Passenger Counters	2	At each door as per the specifications in Annexure 1 below
ii. iii. iv.	accuracy upto last 3-4 beyond. The Authorit change the ITS OBIT accuracy is not within and if the system is no shall be responsible to additional charge upo such change. The equipment of the other and the Bus CA tracking data and the The Cost of such inter Contractor. The operator is requir diagnostics (VHMD) real time basis with the parameters should to of transmitting data and up by the Authority on 1. Timestamp 2. Odometer real 3. Vehicle Status 4. SoC (State of 5. SoH (State of 6. Speed 7. Acculation	I meters fit y has the S system the prese of perform o change t n receipt ITS OBH N for trar any other gration shar parameter the Author be integra t a frequent r through ding s Charge) Healthou y and ceffe	talled in the buses should provide rom the standing location and not right to ask the Contractor to including but not limited to if the cribed distance of actual location ning accurately. The Contractor he entire system without any of request from the Authority on FS shall be integrated to each asmitting all the bus data, vehicle data as required by the Authority. Hould be the responsibility of the re vehicle health monitoring and rs through the bus CAN data on a ity. The following CAN tted to the ITS OBITS and capable ney of 30 sec either to a server set- APIs set up by the operator

r	
	10. Charger Current
	11. Charger Voltage
	12. Ambient temperature
	13. Cell temperature
	14. Motor temperature
	15. BMS error/charging fault
	v. The Authority shall provide all the route information to the
	Contractor to upload into the ITS OBITS in regular intertravels
	such a weekly, monthly, quarterly, annually, etc. The Contractor should make the required changes as and when provided by the
	Authority within seven (7) working days for the envisaged routes
	to be made operational. All route change or deviation in the PIS
	Boards should be dynamic and not static for existing routes
	already uploaded.
	vi. The Camera Based Passenger Counter shall be integrated to the
	SCU at the time of prototype approval, or delivery of the bus or
	as a date mutually agreed with the Authority.
	vii. The common minimum requirement of vehicle health monitoring
	and diagnostics (VHMD) parameters will be-SOC level, Motor
	speed in RPM, Vehicle Speed. The OEM should provide
	minimum $10 - 15$ VHMD parameters through CAN Data.
	viii. Security Camera Network (CCTVs) minimum four numbers
	should meet the specification for IP based cameras and MNVR
	as per Detailed specification document IS 16833:2018 CCTV
	system with integrated emergency System and built-in tracking
	system (with min 5-megapixel camera, SSD hard disc, 4G/5G,
	Wifi for data transfer). Real-time feed enabled at DDU and
	provision for integration with central ITMS system through
	APIs.
	ix. Four hi-resolution CCTV cameras and one reverse camera to be
	installed in the e-buses. These hi-resolution CCTV cameras shall
	be installed each one at 'A' pillar facing towards front road view,
	one above the passenger entrance door from inside facing towards
	driver seat, one above driver door from inside facing towards the
	passenger & fourth one in the exit door from the inside facing
	towards passenger compartment. Three hi-resolution CCTV
	applicable for 7m buses. Operating temp is -10°C to 60°C. The
	camera should provide day/night functionality, automatically
	switches to night mode in low light scenes.Rear View Camera
	System to display the zone behind the vehicle shall be provided
	along with display on or near dash boardx. Rear View Camera System to display the zone behind the vehicle
	x. Rear View Camera System to display the zone behind the vehicle shall be provided along with display on or near dash board. The
	Reverse Parking Alert System (RPAS) shall comply with
	provisions of AIS 145. The indirect vision system shall get
	activated upon engagement of reverse gear. RPAS should give
	audio warning on reaching the critical distance available for
	reverse parking.
21 Safety related items:	
21.1 First Aid Box	As per provision of CMVR, AIS-052
Driver seat belt &	ELR recoil type, 3 point mounting as press CMEWIRA 2016 IS DECEMBER 1010 25.4.17=110003, 0
21.2 anchorage duly type	
	ID.253.420=5e8477fb32abf996688234344cba31cbd6feb26686c927a5d1d6b
21.2approved.21.3Passengers seat belt:	

	Number:	
01.4	Driver/Passenger/wheel	Not necessary except diver seat, for seats facing gangway in the last
21.4	chair Seat Belt Anchorage	row if any & wheel chair, (performance etc. as per AIS 052)
		As per AIS 052
21.5	Fire extinguisher:	
	Handrails minimum	Colour contrasting and slip resistant sleeves with MS tubing of 32
	length*diameter*height	mm dia, 3 mm thick/ powder coated Rest as per AIS 052
21.6	above floor in mm	
		Colour contrasting and slip resistant/powder
21.7	Handholds:	coated. 2 to 4 numbers. Handholds per bay. Rest as per AIS 052
	Stanchions:	Vertically fitted, aluminium tubing with Colour contrasting and slip
21.8		resistant. 40 mm dia & 3.15 mm thick. Rest As per AIS 052.
	Passengers stop request	High visibility bell pushes/pulley chord/touch tape shall be fitted
	signal	at a height of 1.2 ± 0.1 meter on alternate stanchions mainly for
21.9	Signal	persons with disabilities.
21.10	Window guardrails:	As per AIS 052 (for Non-AC buses)
21.11	Entrance/Exit Guard/Step	800 mm minimum height extending \geq 100 mm more than centre
	well guard:	line of sitting position of the Passenger.
21.12	Emergency exit doors,	As per AIS 052/CMVR
	warning devices etc:	
21.13	Front/rear door, step well	As per AIS 052
21110	lights, door open sign,	
	Buzzers	
21.14	Towing device front/rear	Heavy duty 1.2 times (minimum) the kerb weight of the bus with
		300 of the longitudinal axis of the bus. As per CMVR & IS 9760-
		Ring Type. Towing at Front of Bus is required and optional at Rear
		of Bus.
21.15	Warning triangle	As per AIS 052/CMVR
21.16	Fog lighting	As per AIS 052/CMVR (Optional)
		FRP or steel or combination of both meeting requirement of an
21.17	Bumpers - front and rear	energy absorbing system. As per CMVR and AIS 052.
	Passenger safety system	Mandatory allowing bus motion on doors closing and doors
21.18		opening only when the bus is stopped
21110		
22	Windows	
	Type of window	Sliding type windowpanes for Non-AC bus and fixed glass
А		windows for AC bus.
	Minimum height of	\geq 950 mm
В	window aperture (clear	
	vision)* in mm	
	Clear vision includes	As per AIS 052
	partition between	1
C	fixed and sliding glass	
С	subject to a maximum	
	width of 100 mm	
	Minimum height of upper	
D	edge of window aperture	As per AIS 052
	from bus floor	*
	Minimum width of	As per AIS 052
Е	windows (clear vision	Signature : ChemAHENDRA SINGH, SERIALNUMBER=6cbeabfc6d23672f81 Subject : ChemAHENDRA SINGH, SERIALNUMBER=6cbeabfc6d23672f81 6722444d6ec7a96fa1c207cc28d61b8, ST=DELHL 0ID 2, 5, 4, 17=110003
	zone)	ID.2.5.4.20=5e8477tb32abf996688234344cba31cbd6feb2b686c927a5d 27acb4dd2fc, OU=SUPPLY CHAIN MANAGEMENT, O=ENERGY EFFICIENC ICES LIMITED, C=IN
	Life cycle requirements of	
23	bus (whichever isearlier)	12 years of 10,0 000 Km PB : mahendra singh(Mahendra Singh) Date : 02-12-2022

	doors are frequently opened for boarding/alighting of	
	boarding/alighting of Passenger with min air	
	flow of	
	1000±50 m ³ /hr. at each gate. Type of air curtains	
	at entry exit gates their	
	power consumption etc. be accounted for while	
	deciding Motor	
	power, etc.	
25.1	Specifications	a) For up to 42° C of saloon temperature and b) For > 42° C of saloon
25.2	Target results	temperature a) $24+/-4^{\circ}C$ (Up to $42^{\circ}C$)
23.2	Target results	b) Temperature Gradient of 15° (> 42°C of saloon temperature) e.g. If the
		saloon temperature is 450, then the target temperature inside the bus is 450-
		150=300
25.2		c) Min avg. air velocity at air vent is 4.5 m/s
25.3	Apparatus	Lab condition and heating chamber
25.4		1. Soak the bus for 1 hour in peak heat or in chamber with controlled temperature.
		2. Start the Air Condition system with Two BRTS doors opening at
		closing at every 1.5 minute for atleast 15 seconds.
	Procedure	3. Pull down time: Upto 42°C Saloon Temperature: pull down time upto
	Procedure	targeted results would be 30 minutes (maximum). for more than 42°C of Saloon temperature, pull down time within 40 min (maximum)) for the
		targeted result.
		targeted result. Thermocouple to be placed over place 5-10 numbers. At nose level.
26	Additional requirements	•
26	Additional requirements	•
		Thermocouple to be placed over place 5-10 numbers. At nose level. An air passage/duct/roof hatch to be provided in driver area at a suitable location for proper inflow of air inside the
	Air circulations and	Thermocouple to be placed over place 5-10 numbers. At nose level. An air passage/duct/roof hatch to be provided in driver area at a suitable location for proper inflow of air inside the driver cab
		Thermocouple to be placed over place 5-10 numbers. At nose level. An air passage/duct/roof hatch to be provided in driver area at a suitable location for proper inflow of air inside the driver cab Drivers work area to be provided with blower or suitable device
	Air circulations and	Thermocouple to be placed over place 5-10 numbers. At nose level. An air passage/duct/roof hatch to be provided in driver area at a suitable location for proper inflow of air inside the driver cab Drivers work area to be provided with blower or suitable device (200 mm diameter fan) to ensure proper ventilation.
	Air circulations and	Thermocouple to be placed over place 5-10 numbers. At nose level. An air passage/duct/roof hatch to be provided in driver area at a suitable location for proper inflow of air inside the driver cab Drivers work area to be provided with blower or suitable device (200 mm diameter fan) to ensure proper ventilation. These devices may be capable of 3 – speed
26.1	Air circulations and ventilation in driver'sarea	Thermocouple to be placed over place 5-10 numbers. At nose level. An air passage/duct/roof hatch to be provided in driver area at a suitable location for proper inflow of air inside the driver cab Drivers work area to be provided with blower or suitable device (200 mm diameter fan) to ensure proper ventilation. These devices may be capable of 3 – speed adjustment
	Air circulations and	Thermocouple to be placed over place 5-10 numbers. At nose level. An air passage/duct/roof hatch to be provided in driver area at a suitable location for proper inflow of air inside the driver cab Drivers work area to be provided with blower or suitable device (200 mm diameter fan) to ensure proper ventilation. These devices may be capable of 3 – speed
26.1	Air circulations and ventilation in driver'sarea Interior noise and pass by noise Maximum noise levels	Thermocouple to be placed over place 5-10 numbers. At nose level. An air passage/duct/roof hatch to be provided in driver area at a suitable location for proper inflow of air inside the driver cab Drivers work area to be provided with blower or suitable device (200 mm diameter fan) to ensure proper ventilation. These devices may be capable of 3 – speed adjustment shall conform to IS: 12832:2010 or latest and IS: 3028:2018, AIS 20 or latest respectively. 81dba
26.1	Air circulations and ventilation in driver'sarea Interior noise and pass by noise	Thermocouple to be placed over place 5-10 numbers. At nose level. An air passage/duct/roof hatch to be provided in driver area at a suitable location for proper inflow of air inside the driver cab Drivers work area to be provided with blower or suitable device (200 mm diameter fan) to ensure proper ventilation. These devices may be capable of 3 – speed adjustment shall conform to IS: 12832:2010 or latest and IS: 3028:2018, AIS 20 or latest respectively.

	system location)-test	
	procedure as per AIS 020	
26.4	Fire Detection and Suppression System (FDSS)	An automatic fire detection & Suppression system be essentially provided for the fire prone areas and other fire sensitive areas of the bus. Possibility of provision of FDSS for entire bus including but not limited to electric propulsion system area, drive line, battery pack, battery charging point and power distribution lines / cluster, wheel wells, electrical systems etc generally.
1)	Detector Specifications	
А	Fire Condition Monitoring device	Pneumatic Electronic Linear fire detector with stainless -steel tube with suitable diameter
В	Components for Fire Condition Monitoring Device	
Ι	Generally, as per UBS II, AIS 135, CMVR	Detector operating on rate of rise of temperature and/or any other parameter sensing potential fire sensitivity with Advanced Built in Test Module.
II		Stainless steel Tube sensor with suitable diameter and should be rodent free
С	Detector Specification/ requirements: Generally as per UBS II, AIS 135, CMVR (if any)	Detector should operate with Rate of Rise of temperature along with advanced Built-in Test Module that indicates failure in the event of reduced performance over the entire range of sensor tube.
Ι	IP Rating	IP67
II	Enclosure	Aluminium
III	Operational Temperature Range	-40°C to +125°C
IV	Shock & Vibration:	Should comply toEN 61373, Table 1,2,3 MIL STD- 810:501.4, 516.5.4.
V	Sensor Tube	1 Mtr to 100 Mtr in length. Stainless steel material with suitable diameter.
VI	Operating Voltage:	18 - 32 V DC
VII	Standby Current:	20 mA
VIII	Alarm Current:	40mA
2)	ļ	
Ι	Capacity of the Fire suppression system for each of the different areas	as decided by the Vehicle Manufacturer
II	Material of Construction	VM to decide optimal materials and the containers for fire supersession for each of the fire sensitive areas of the Electric Bus.
III	Fire suppression system trigger mechanism for each of the fire prone areas	Pneumatically/ mechanically / electro- mechanically and or any other mechanism Operated
IV	Powder (if any used)	UL listed ABC 90%
27	Destination boards	Four Destination Board: Internal, Front, Side and Rear. (UV resistant) Alphanumeric Dual Fisplay Technology Amber Colour LED based Ficter Set electronic route a play system in English and appropriate regional

		control shall be installed at the front, rear and side of bus with GPS
		feed triggered display on internal display board and announcement of name of approaching bus-stop inside the bus. Destination boards should comply with IS 16490 BIS standards. (As per AIS-153 and AIS-052)
		(As per AIS-153 and AIS-052)
		 Information on a route and its final destination should be displayed outside the bus in large text, especially on the front and side of the bus. This information should be in bright contrasting color and be well illuminated by an external light to make it readable in the dark. The pitch of the LEDs shall be optimized to cover the maximum possible area along the length for displaying the maximum number of letters. The display shall be clearly visible in all weathers at a distance of up to 50 meters.
		For Inside Display: The micro- processor-based Signature of the announcement shall be made for both current and next bus stop/destination synchronized with the display alternatively in local and English. The illumination system will be of modular display type. The display shall be mounted behind the driver at an appropriate height for clear visibility to all passengers in the bus from all angles. Ingress Protection Grade of IP 65/55 for destination Boards
28	Paint	Colour scheme as per STU requirement. The approval of design and shade of the paint be obtained from respective STU before painting.
		All the structural members of the bus shall be treated for corrosion prevention internally as well as externally and painted wherever required. The Polyurethane (PU) painting conforming to BIS: 13213- 1991 or latest shall be used for exteriors painting of the bus including interiors wherever required. Colour shade shall match to the shades as per BIS: 5-1978 or latest. In case of Matt black paint, the same shall be tested as per IS: 13213-1991 or latest except the gloss value should be up to 30 units.
	Colour Scheme	Colour scheme as per STU requirement. The approval of design and shade of the paint be obtained from respective STU before painting. Exterior, interior colour schemes and logo/ graphics to be applied will be as notified by Public Transport Authority. The buses must be recognizable as environmentally friendly battery buses.
		Buses shall bear CESL Logo and branding as provided by CESL Logos shall be lodged onto the bus body as per requirements of CESL
29	Jack	As per CMVR & bus code AIS052
30	Fire Detection & alarm System (FDAS)	As per AIS -153
31	Tool Kit	As per CMVR & bus code AIS052
32	GVW	As per CMVR Rules & its amendments from time to time scheable de 367218 1440
33	Fire retardancy	All material used inside the bus, should be the created and a single structure of the created and a single s

Note:

- I. The Bidder shall submit Technical Specification of Components/Systems of Electric Propulsion system and submit the test certificate for these components as per the prescribed standards from the notified testing agencies like ICAT, CIRT, ARAI, VRDE, etc.
- II. All electrical wiring harness and accessories used on electric bus shall comply necessary automotive safety standards.
- III. All units & electrical accessories and wiring harnesses use on the bus shall be so mounted that they are easily accessible and can be removed without disturbing other components. Further these accessories and wiring harnesses shall be well protected to prevent ingress of water.
- IV. Mandatory Certification Compliance and acceptance tests for Safety Components, Batteries, Buses and Requirements for Battery Charging Infrastructure Systems etc. by competent authority to be obtained.
- V. Mandatory Certification Compliance for Safety Components, Batteries & Buses should be met
- VI. The Bidder shall ensure the fitment of all electric propulsion system components on the bus confirming to National/International Standards. In case if the standards are not available, then it should confirm to the company's standard based on sound technical information and Engineering practices.
- VII. The Bidder shall undertake type approval testing of Traction Batteries pack fitted on the bus as per CMVR notified standard and submit copy of Approved certificate.
- VIII. The Buses shall meet all the above technical specification requirements. The buses shall be deemed satisfactory for operation only after the buses meet all the requirements prescribed above.
- IX. The Bidder shall monitor the operation of these Buses and sort out the operational issues, if any.
- X. The Bidder shall ensure safe & successful operation of these buses. In case of breakdown in these vehicle systems or battery charging infrastructure system, the Bidder shall immediately rectify the defects / replace parts and make the Buses, vehicle systems or charging system operational as the case may be.
- XI. Bus manufacturer needs to provide lifetime warranty for the battery, electric motor, and controller. Smaller repairs had to be resolved in six hours while system faults with battery, electric motor and controller have to be corrected within 48 hours. The warranty also requires the manufacturers to replace batteries when the state of health (SOH) falls below 80 percent. The bidder shall provide quarterly reports on the SoH of battery packs of each bus. This will be measured at the charger level by the energy (kWh) uptake of the battery packs while charging from 25% to 100% SoC. The relative deterioration of energy uptake of the battery packs will be used to determine the SoH of the battery to be calculated at energy uptake in quarter (kWh)/ energy uptake in first quarter post COD.
- XII. Manufacturers need to meet high safety standards for battery packs. These standards include a protection level that is no less than IP67—which represents a high water and dustproof battery pack—and satisfactory operation safety in extreme temperatures ranging from 0 to 65°C.
- XIII. Bidder to submit the type approval certificate for the allocated bus at the time of delivery of buses to the respective cities.
- XIV. Camera Based Passenger Counting System should be Bi Directional Counting on a Definable Line (Polygon), Variable position of counting lines, Adaptation to on-site requirement, No Double Counting, Automatic Compensation for interference from swinging and sliding doors, It shoud also have real-Time Video Streaming or recording of video files to external storage media, Start and Stop function via door contact, No interference with other functions. The system shall achieve minimum 95% counting accuracy. The system should be intergrated through ITS OBITS to the backend of the System(s) of the Authority. The cost of such integration shall be the responsibility of the Bidder during the Contract Period.
- XV. Camera Based Passenger Counting System should generate Total Passenger Report- A basic report to analyze passenger counts on a single vehicle only. Time resolution shall be by day, week, month or year. Option to select a range of dates shall also be available; default time interval shall be by day with maximum 90 day resolution allowed. Report output shall be displayed on screep as tabular control of the tabular output only, downloadable as a CSV file.
- XVI. Integration to Existing ITMS/AFC System: Bidder shall provide the complete IFS OBITS system as specified herein above in the Buses. The bidder shall also ensure to supply equipment compatible with

existing ITS System of Authority so as to enable smooth integration. Bidder is responsible for regular maintenance ITS OBHTS equipment installed by throughout the Contract Period. The Contractor and Authority agree to share interfacing protocols and Active Programming Interface with each other for smooth integration of ITS OBHTS equipment provided by Bidder to the Authority's ITMS. The Authority can mount any equipment in the Buses provided by the Bidder at its own cost and the Bidder shall be responsible for the safety and security of such equipment during the Contract Period.



Signature: CN=MAHENDRA SINGH, SERIALNUMBER=6cbeabfc6d23672f8144da801b75i 54722444d6ec7e96fa1c207cc28d61b8.ST=DELHI.01D.2.5.4.17=110003.O 1D.2.5.4.20=5e8477fb32abf996688234344cba31cdofeb2b566e272a5e1d6b 27acb4dd2fc, OU=SUPPLY CHAIN MANAGEMENT, O=ENERGY EFFICIENCY SERV ICES LIMTED, C=IN USer ID : mahendra.singh Serial No: 1628640 PB : mahendra.singh(Mahendra Singh) Date : 02-112-2022

Table 3: Technical specifications of Electric bus Compliant with the requirements of CMVR AIS:052 Type -II &Type -III 12m electric bus

S No.	Description	Technical Specification
	Introduction	i. The minimum Technical Specifications have been set out for the following types of Stage Carriages:
		 a) Fully Built non-AC Pure Electric Standard Size (12Metre) Type III Buses. b) Fully Built non-AC Pure Electric Standard Size (12Metre) Type II Buses
		ii. The word "bus" shall mean the New Stage Carriage to be used for the project.
		 iii. The word "bus" shall also mean a bus powered exclusively by an Electric Motor whose traction energy is supplied exclusively by traction battery installed in the vehicle suitable for operations in city conditions.
		iv. The bidder shall comply with all applicable Central, State and local laws (including Acts, Rules & Regulations).
		v. The word "Bus" wherever it has been used in specifications means the " Battery Operated Bus ". The bus in general shall meat all applicable Central Motor Vehicle Rules, 1989 as amended (hereinafter referred to as "CMVR"), norms for safety applicable on the date of manufacture and Bus Code AIS 052 and any revisions thereof [hereinafter called Bus Code] AIS-049, AIS-038 and AIS-153 all amended up to date and all other norms and regulations on high voltage electric vehicles.
		Where there is conflict between the requirement as per any applicable law in force and the requirement emanating from these specifications whichever of these two is of superior/ higher standard shall prevail. Also, any specifications superior to the ones set out as Minimum Technical Specifications shall meet requirements of the contract.
		Bus Model should be in compliance with CMVR & Bus Code and approved as per AIS: 052+AIS:153+ Annexure 3 of UBS II + FAME II by any Indian Government testing agency like ARAI, ICAT, NATRaX, CIRT etc.
	Statutory Requirements	The eBus shall be designed and manufactured in accordance with the specifications & AIS-052: Code of Practice for Bus Body Design & Approval [Bus Code], AIS – 049, AIS – 038 and AIS-153 all amended up to date as also those related to easy passenger accessibility including for persons with disabilities (PWDs).
		eBus shall be type approved as per CMVR requirements
	FAME- II compliance	Deep the set of the second line of entitle EAME II as an increase of
1	Electric propulsion system & its requirements.	Electrically propelled system should be compliant with FAIVLE-III requirement Electrically propelled system should be reprinted to an end of the system system of the system system of the system of t

		Electric Propulsion system should propel the bus at GVW fitted with all
		other auxiliary devices and system including air conditioning. Electric propulsion system and other sub-system should be able to
		operate efficiently at ambient temperatures / environmental conditions
	Type of Battery	Advance chemistry battery as defined by Ministry of Heavy Industry
	Type of Battery	vide Notification No S.O. 1472(E) dated 28 th March 2019 as amended
		time to time.
		Manufacture should use advance new generation batteries.
2		Battery should cerified as per AIS-038 Rev-02 Amendment 3
-		Duttery should confined as per this soo her of a finite sector
		For Human Safety, Battery should also be cerified with Office
		memorandum F.NO. 01(02) /2022 –AEI (20555)
		Dated 28th October 2022
	a. Battery Pack Rating and	i. No. of Motors/ Batteries as per Manufacturer's design.
	Energy/Power	ii. Location of motor and batteries as per Manufacturer's design
	b. Minimum, Maximum	considering minimal maintenance and easy of charging
	Charging %, charging	iii. Electric Regeneration is required
3	time	iv. Charging Mode as per Manufacturer's design.
·	c. Motor/s Capacity	v. Charging time less than 5 hours- overnight charging
	d. Charging standard	vi. Safety -Short circuit/ Over Temperature / Lightening Protection is
	e. Charging standard in high	mandatory
	voltage system	vii. CCS 2.0 - Combined Charging System
2.1		Liquid Cooling system with minimum maintenance.
3.1	Battery Cooling System	
3.2	Battery Life	Battery to be used in mobility application up to 80% State of Health
3.2		(SoH). OEMs to replace battery when SOH falls below 80%.
3.3	Battery Charging System	DC fast charging by CCS 2.0
		Manufacture should use optimal Rating, Type, Make, Model of Electric
		Drive Motors with minimum maintenance
3.4	Electric Drive Motors	Motor should be able to operate efficiently at ambient
		temperatures of approximately 0 to 50 degrees centigrade,
		humidity level from 5% to 100%.
	Electric propulsion system	
3.5	motor rating / power	
	sufficient to provide Rated	
	Performance at GVW	
a.	Acceleration (Meter / Sec. ²)	≥ 0.8
b.	Bus Speed of $0 - 30$ kmph	≤ 10.5 seconds
	in Seconds.	Maximum aread shall be as non the Covernment resculations from time
2	Movimum Speed	Maximum speed shall be as per the Government regulations from time
c.	Maximum Speed	to time Maximum rated speed should meet the requirement as per CMVR
	Grade ability from Stop at	Maximum rated speed should meet the requirement as per Civi V K
d.	GVW	17%
	Rated HP/torque	Rated HP at low rpm and Maximum torque required at lower range
	preferably at lower rpm	
e.	range	of motor RPM and spread over a wider range of RPM Sufficient
	Tange	torque to meet the acceleration, gradeability, AC and range
	D	requirement.
c	Power requirements for Air	Required to be provided by traction battery of electric propulsion
	and then in a system IIN	system
f.	conditioning system ITS,	Signature :-
f.	etc	Signature : Subject : CN=MAHENDRA SINGH . SERIALNUMBER=6cbeabfc6d23672f8 dddi 672244ddgecf=96fa1c207cc28d61b8, ST=DELHI, 01D 2.5.4.17=110003; 0 LD 2.5.4.20=5642717032ab9966680234344cbe086c924384106066c9243841060
	etc Energy Consumption of e-	Standard Bus (12 m) A - 1 1 k W / k - 0 - 2 - 2 - 5 - 8 - 4 - 7 - 5 - 2 - 5 - 8 - 4 - 7 - 5 - 2 - 5 - 8 - 4 - 7 - 5 - 5 - 6 - 5 - 7 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5
f.	etc	Signature :: Signature :: Signature :: Signature :: Standard Bus (12 m) Arc - 1.1 kWh/kr/mid2.000 Standard Bus (12 m) non-AC - 0 Standard Bus (12 m) non-AC - 0 Disc : 02-2444068223434cbits.02-25431cbits.02

	AC ON and AC OFF condition (Annual Average)	
4	Operational safety	Transmission system to be fitted with a mechanism which makes it possible to engage reverse gear only when vehicle is stationary
<u>4</u> 5.	Bus Characteristics	
5.1	Front Axle	As per manufacturers design UBS-II/AIS 052/CMVR
5.2	Rear Axle	As per manufacturers design UBS-II/AIS 052/CMVR
6	Suspension (Front & Rear)	Air suspension at Front & Rear
6.1	Anti-roll bars/stabilizers	Required at front and rear If independent front suspension is used, anti-roll bar is not required.
6.2	Shock absorbers	Hydraulic double acting 2 at front & 4 at rear
6.3	Controls (optional)	Electronically controlled air suspension system
7	Steering	Power steering with height and angle adjustment. As per manufacturers design UBS-II/ AIS 052/CMVR
8	Transmission	Automatic transmission.
9	Brakes	As per manufacturers design
9.1	Braking system	 Mandatory ABS with Disc at front and Drum at rear OR disc brake at both front and rear. In case of Brake Failure provision should made for obtaining effectiveness of service brake Graduated hand controlled, spring actuated parking brakes acting on rear wheels.
10	Electrical system for auxiliary devices	24V DC
10.1	Batteries (ancillaries equipment and light and light signalling devices)	Low maintenance type leads acid batteries for 24 V & Min 100Ah system- performances as per BIS: 14257- 1995 (latest).
10.2	Electrical wiring & controls -type	Multiplexing type As specified separately underITS specifications and conforming to IP 67. It should be as per AIS 153.
11	Speed limiting device	Electronic type duly approved /certified as per AIS – 018/2001 or latest, tamper proof and be adjusted to applicable speed limit
12	Tyres	Steel Radial Tube-less. Size and performance as per latest CMVR/IS 15633/IS 15636,/AIS 142 standard
	Charging range	Daily operation km per bus upto 475kms for Type III and 375kms for Type II with one opportunity fast charging of up to 60 minutes (depotin, depot-out basis).
		Single charge range:
		Type III buses Non-AC- 325 kms (at 80% SoC)
13		Type II buses Non-AC – 275 kms (at 80% SoC)
		Duly certified as per AIS 040 standard by Indian Government testing agency (ARAI/ICAT/CIRT/ VRDE etc.) along with type approval certificate at GVW and additional AC load (in case of AC buses)
14.1	Bus characteristics	12- Metric IN=MAHENDRA SINGH, SERIALNUMBER=6cbeabfc6d2367783 d4 12- Metric Isec7e96fa1c207cc28d61b8, ST=DELH, OID.2.5.4.17=11003_0 ID.2.5.4.20=56477fb32abf99668823434cba31cbd6feb2b686c927a5e1d6 (Standbric, OU=SUPPLY CHAIN MANAGEMENT, O=ENERGY EFFICIENCY SI User ID: mahendra.singh Serial No: 1628840 PB : mahendra.singh(Mahendra Singh)

	Overall length (excluding	≥11900 mm	1
А	bumper)		
В	Overall width (sole bar/floor level- extreme points)	2600 mm (maximum)	
С	Overall height (unladen - at extreme point)	As per CMVR	
D	Floor Height above ground	Standard Floor- 1100 ±50 mm	
E	Wheelbase	As per CMVR 6100 (Tolerance -100 mm +250mm	
F	Front Overhang	As per CMVR- To accommodate Door ahead of Front axle and meeting the requirement of AIS-052	
G	Rear Overhang	As per CMVR	
14.2	Maximum turning circle radius (mm)	As per CMVR	
14.3	Clearances (mm)		_
А	Minimum Axle clearance (mm)	Minimum 165 mm	
В	Wheel area clearance (mm)	> 220 mm for parts fixed to bus body &> 170 mm for the parts moving vertically with axle.	
С	Minimum ground clearance (un-kneeled) at GVW	Within the wheelbase not less than 240mm.	
14.4	Angles (degrees)		
А	Angle of approach (unladen)	Not less than 8.5° for Standard bus	
В	Angle of departure (unladen)	Not less than 9° for Standard bus	
С	Ramp over angle (half of break-over angle)	Not less than 4.8°	
14.5	Luggage space	Hat rack + parcel Luggage is provided as per AIS052 for Type II and Type III buses	
14.6	Provision of toilet	Type III buses shall be provided with toilet facilities as per AIS- 052. Washbasin to be provide inside Toilet area.	
15	Bus Gates/Doors (Passenger Doors, Driver door & Emergency Exit)	Entry and exit Door: Power operated passenger door, JK type/Swing in door as per manufacturing design. Single FOH Door for Type III buses Double Door for Type II buses Driver Door as per CMVR/AIS-052, Emergency Exits as per CMVR/AIS-052 & AIS-153	
А.	Operating mechanism	Passenger Door: Electro pneumatically controlled Driver Door: Manually Operated	
B.	Opening/Closing time in seconds per operation (maximum)	4 Seconds	
C.	Positions of door controls	On dashboard and also inside & outside of doors as per AIS 052.]
D.	Passenger safety system – allowing bus motion on doors closing and doors opening only when the bus is stopped	Mandatory. Signature :: Subject : Gie-Yashi 20 y Corcesto 11 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2	1d4da801b7 3, O e1d6b SY SERV

		1	1
E	Door Components/Door Locks/Locking system/door hinges/Door retention	As per AIS 052	
15.1	Service doors – Requirement	As per AIS 052 & AIS 153	
А.	Minimum door aperture (without flaps) in mm	650 mm FOH/ROH Door)	
B.	Minimum clear door width (fully opened) in mm	$600 \pm 50 \text{ mm}$	
C.	Minimum door height in mm	1900 mm	
D.	Positioning front service gate	For Type III buses: 1 No. FOH only	
		For Type II buses: one door at FOH and second door at ROH. Preferably behind of rear axle or optional ahead of rear axle (should be at Rear half of vehicle)	
E	Number of gates	For Type III buses: 1 No. FOH only	
		For Type II buses: 2 Nos as mentioned in 14.1 D clause	
15.2	Door closing requirements for bus movement	Bus should move only after door closing completed	
A	Power operated service door - construction & control system of a power operated service door to be such that a Passenger is unlikely to be injured/trapped between the doors while closing	As per AIS 052	
15.3	Step height (mm) from ground - unladen &un- kneeled position in buses	Floor Height Steps as per AIS-153	
16	Provisions of for wheel chair of Persons with Disability (PwD)	Should meet requirement as per AIS-153	
17	Bus design		
17.1	Design type approval	As per CMVR, AIS;052 + AIS:153 IS 16833 and IS 16490	
	Bus structure - materials	OEM should ensure GI tubular structure To meet the requirements of AIS:052 + AIS:153	
17.2	specifications etc.	Exterior panels: as per OEM design	
17.3	Insulation	FR grade material as per IS 15061	
A	Roof and side	FR Grade material glass wool, PU foam or thermocol:	
B	Battery Pack compartment	As per AIS:052.	
17.4	Floor type/Materials etc.	Signature :- Subject _ EN-MAILENDRA_SINGII, <u>SERVALINUMBER_60cbeb/c0d23072/00</u> 50/Ject _ EN-MAILENDRA_SINGII, <u>SERVALINUMBER_60cbeb/c0d23072/00</u> 52/2444/dec/246/2072/28/61/8, ST=0ELHL_0D_2.5.4, 17=11000	d4da801b75;
A	Type of Floor	As per AIS:052 requirements.	, O 1d6b Y SERV
B	Steps on floor	As per AIS:052 / AIS 153 requirements (CH)	-
C	Maximum floor slope	As per AIS:052 requirements]

	Floor surface material	Minimum 15mm thickness phenolic resin bonded densified laminated compressed wooden floor board (both side plain surface) having density of 0.95 - 1.25 gms/cc conforming to IS 3513 (Part- 2)) turns VI 1080 cm latest	
D		 3): type VI 1989 or latest. The flooring should also be boiling water resistant as for marine board BIS:710-1976/ latest and fire retardant as per BIS:5509-2000 (IS15061:2002). The chequered plywood 15 mm thick is also allowed as per the relevant standard for the quality and fire resistance/flammability. 	
Е	Anti – skid material	3mm thick anti-skid type silicon grains ISO 877/76 for colour, IS:15061:2002 for FR grade.	
17.5	Safety glasses and fittings:		
A	Front windscreen (laminated) glass:	Single piece laminated safety glass, plain, lateral/curved with curved corners with PVB film IS 2553 (Part-2)-1992/latest. Standard designs for each variant of buses to be followed	
В	Laminated Glass Specifications	Total Thickness = $8.76 \text{ mm} \pm 0.2 \text{ mm}$ Clear Interlayer	
С	Rear windscreen: (wherever provided)	Single piece flat/curved toughened glass- plain/flat/curved at centre & curved at cornersIS:2553 (Part-2)–1992/latest revision.	
D	Side windows:	Single piece flat /curved pasted toughened glassIS 2553 (Part-2)-1992/latest revision.	
E	Side Window /Rear Windshield Glass specifications	Toughened glass IS2553 (Part-2)-1992/latest revision Thickness = 4.8-5.3mm	
D	Other glasses - material specs, thickness etc. (If Provided)	Toughened glass IS2553 (Part-2)-1992/latest revision Thickness = 4.8-5.3mm	
17.5	Driver Seat	Should meet the requirement as per AIS-023 and AIS-052	
А	Performance & strength requirements Driver Seat	As per AIS-023	
В	Driver's working space	As per AIS-052	1
С	Driver seat belt & anchorage duly type approved.	ELR recoil type, 3 point mounting as per CMVR & AIS 052 conforming to AIS 005 & AIS 015	
17.6	Passenger Seat and Layout	Should meet the requirement as per AIS-023 and AIS-052	
Α	Performance & strength requirements passenger Seat	As per AIS-023	
		Type Approved Push Back Seats (PBS) (AIS-023) with footrest with water bottle holder, Magazine pouch & Bag hook for Type III buses	
В	Passenger Seat	Type Approved High Head Rest Seats (HHR) (AIS-023) without footrest with optional water bottle holder, Magazine pouch & Bag hook for Type II buses	
		Seat belts to be provided as per AIS-052 clause. Flammability of passenger seat components As per IS: 15061:2002	
		ID 2 E 4 20 - Exect 77fb22xbf006699224244cbx21cbd6fab2b696c027xEc	ld4da801b 3, O e1d6b CY SERV
C	Passengers seat belt Number and Location	As per AIS-052	Y SERV
D	Seat layout in Floor area	2X2 as per AIS-052	

	Minimum coating consoity	Total 26 numbers passanger seat for Standard (12 Matra) hus			
_	Minimum seating capacity	Total 36 numbers passenger seat for Standard (12-Metre) bus excluding Wheelchair. (36 seats + 1 wheelchairs + Driver) for Type III buses			
D		Total 43 numbers passenger seat for Standard (12-Metre) bus excluding Wheelchair. (43+ 1 wheelchairs + Driver) for Type II buses			
E	Standee Passenger	NA For Type III Standee capacity as per calculation for Type II buses. Area Need to mentioned in layout. Min. standee for Type II bus = 23 numbers			
F	Seat area/seat space per Passenger (width*depth) mm	400 mm x 350 mm			
G	Seat pitch - minimum (mm)	As per AIS 052			
Η	Minimum backrest height- from floor to top of seat/headrest	As per AIS 052			
Ι	Seat back rest & height mm	Fixed Type seat and Height as per AIS 052			
J	Seat base height-distance from floor to horizontal front upper seat cushion	As per AIS 052			
	mm.	As per AIS 052			
K	Free height over seating position (mm)	1000 mm Min.			
L	Seat base height:	As per AIS 052			
Μ	Torso angle (degrees)	As per AIS 052			
N	Clearance space for seated Passenger facing partition (mm)	350 mm Min.			
0	Seat Arm	Seat arm required for aisle seats and seats opposite to service door and above wheel arches.			
Р	Upholstery:	Pile Fabric OR Jacquard 0.8-1.0 mm thickness			
S	Seat belts & their anchorage	As per AIS-052			
17.7	Gangway	As per AIS-052. Dimension Should be measured as Center line of gangway and clearance should check with Template mentioned as per AIS-052			
18	Rear view mirrors	As per CMVR and AIS-052			
А	Mirrors right/left side exterior/interior	As per AIS 001 & 002. Interior with double curvature			
19	Escape Hatch/Ventilator on Floor /Roof	As per AIS-052 & AIS-153 ^{51gnature:} CN=MAHENDRA SINGH, SERIALNUMBER=6cbeab/c6d23672/81 6722444d6cre9561a1c20c28d61b8, ST=DELHI, 0ID.2.5.4.17=110003 ID.2.5.4.20=568477fb32ab996688234344cba31cbdfeb2b686c927a5 27acb4dd2r, 0U=SUPPLY CHAIN MANAGEMENT, 0=ENERGY EFFICIENC ICES LMITED, C=IN			
20	Corrosion prevention & painting	As per AIS 052			

21	Wind screen wiping system	As per CMVR: IS 15802		
A	Wiper motor,	As per chiri (K. 15/15002		
B	Wiper arm/ Wiper blade			
_	Washing system			
22	Electrical system	As per CMVR and as per AIS 052, Copper conductors with fire		
22.1	Electrical cables:	retardant as per IS/ISO:6722:2006 as per appropriate class.		
22.2	Conductor cross section	Conductor cross- section varying as per circuit requirements, minimum cross- section 0.5 sq. mm. Quality marking may also be as per equivalent or better European, Japanese, US standards, Conforming to IP 67 water& air-tight for traction battery. For Bus Body Building IS 2465/Multiplex wiring /ISO 6722		
22.3	Safety requirements of electrical			
А	Fuse			
В	Isolation switches for electrical circuits where RMS value of voltage exceeds 100 volts			
С	Location of cables away from heat sources			
D	Type approval of circuit diagram as per standards related to electric equipment's/wiring	As per AIS 052. Battery cut off (Total Two) - One manual near driver seat - One electronic on driver Dashboard area.		
Е	Battery cut - off switch (isolator switch):			
F	Charging Socket	Concealed Type Safety Socket along with two USB port of sufficient capacity for each Row of Passenger Seat		
G	ETM Charger	ETM Charger should be provided in Driver Cabin		
22.4	Lighting - internal & external andillumination	All lights including interiors should be LED Type Head Lights can be bulb Type. Other information as per AIS 052 and AIS 153		
22.5	Illumination requirements /performance of:			
А	Dash board tell-tale lighting/control lighting	As per AIS 052		
В	Cabin lighting - luminous flux of all lampsfor cabin Lighting	As per AIS 052 with illumination level of \geq 100 lux & \leq 200 lux		
С	Passenger area lighting - luminous flux ofall lamps for Passenger area lighting	As per AIS 052 with illumination level of ≥ 100 lux and ≤ 200 lux		
23	ITS enabled bus	 i. The Bidder shall procure buses as defined by the Authority which shall also include various but not limited to ITS System as defined by UBS II, AIS 153, AIS 140 Specifications and any amendments issued thereof. Some of the equipment's and their quantities are listed below: Specifically requirements but not limited to, include: Sr. Type of Equipment No 12M 1420 1420 1420 1420 162840 1		

		as per IS 16490 specifications		
	2	Speaker	2	
	3	Amplifier	1	
	4	Fully ITS compliant	1	As per IS 16490 specifications and amendment 2
	5	DDU	1	As per IS 16833 annexure C Amendent 2
	6	CCTV Cemera with 4G eSIM MNVR	3 1	Internal and External with 30 days backup storage as per IS 16833 annexure C
				4 or 8 channel minimum 2 TB DVR for recording
	7	Panic Button		As per AIS 140 Specifications
	8	Camera based Passenger Counters	1	At each door as per the specification in Annexure 1 below
ii. iii. iv.	acc bey the not is the cha of Th the and int Th dia tim to a f	curacy upto last 3-4 n yond. The Authority has ITS OBITS system in t within the prescribed not performing accurate ange the entire system request from the Author e equipment of the ITS Bus CAN for transmid d the any other data as egration should be the e operator is required agnostics (VHMD) para be basis with the Author be integrated to the ITS	heters fr as the rig cluding l distance ely. The without rity on su OBITS s tting all required required to sha uneters t ority.The SOBITS her to a	shall be integrated to each other an the bus data, vehicle tracking dat by the Authority. The Cost of such bility of the Contractor. re vehicle health monitoring an hrough the bus CAN data on a rea following CAN parameters should and capable of transmitting data a server set-up by the Authority of

- Vehicle Status 3.
- SoC (State of Charge) 4.
- SoH (State of Health) 5.
- 6.
- 7.
- 8.
- Signature:-Subject::CN=MAHENDRA SINGH, SERIALNUMBER=6cbeabfc6d23672f81d4da801b75i 6722444d6ec7e96fa1c207cc28d61b8, ST=DELHI, 01D,2.5.4,17=110003, 0 ID,2.5.4,20=5e8477fb32abf996688234344cba31cbd6feb2b686c927a55d1d6b 27acb4d2fc, 0J=SUPPLY CHAIN MANAGEMENT, 0=ENERGY EFFICIENCY SERV Voltate: ppack and cell US product in the interval of the interval Current (pack and cell US product) B8: maherdra.singh(Mahendra Singh) 9.
- 10. Charger Current

24.7	Window guardrails:	As per AIS 052 (to Non-AC buses) mahendra singh(Mahendra Singh)
		27acbdd2fc, OU=SUPPLY CHAIN MANAGEMENT, O=ENERGY EFFICIENCY SER ICCS LIMITED, C=IN
21.0	signal	Subject : CN=MAHENDRA SINGH, SERIALNUMBER=6cbeabfc6d23672f8]d4dai 6722444d6cre96fa1c207cc28d6186, ST=DELH, 00.2.5,4.17=11003, 0 UD 2 5 4 20=5e8d7fb32bf996d8234344cba31cbd6feb2b68ce9275b1 d6b
24.6	Passengers stop request	For persons with disabilities as per AIS-153.
24.5	Stanchions:	As Manufacturer design/ AIS-052
24.4	Handholds:	Colour contrasting and slip resistant/powder coating. As per AIS 052
24.4	above floor in mm	Colour contrasting and slip resistant/newdor costing. As per AIS
	length*diameter*height	to 38 mm dia, 3 mm thick/ powder coated. Rest As per AIS 052
24.3	Handrails minimum	Colour contrasting and slip resistant sleeves with MS tubing of 32
	Fire extinguisher:	
24.1		As per AIS 052
24	First Aid Box	As per provision of CMVR, AIS-052
24	Safety related items:	on reaching the critical distance available for reverse parking.
		 System. ix. Two hi-resolution CCTV cameras and one reverse camera to be installed in the e-buses. These hi-resolution CCTV cameras shall be installed in the front of the passenger compartment & other in the rear of the passenger compartment.Rear View Camera System to display the zone behind the vehicle shall be provided along with display on or near dash board. Operating temp is -10°C to 60°C. The camera should provide day/night functionality, automatically switches to night mode in low light scenes.Rear View Camera System to display the zone behind the vehicle shall be provided along with display on or near dash board. x. The Reverse Parking Alert System (RPAS) shall comply with provisions of AIS 145. The indirect vision system shall get activated upon engagement of reverse gear. RPAS should give audio warning
		 VHMD parameters through CAN Data. viii. Security Camera Network (CCTVs) minimum four numbers and display screen should meet the specification for IP based cameras and mNVR as per Detailed specification document for CCTV devices as per IS 16833:2018 CCTV system with integrated emergency System (with min 5-megapixel camera, SSD hard disc, 4G/5G, Wifi for data transfer). Responsibility of APIs based integration with backend
		 at the time of prototype approval, or delivery of the bus or as a date mutually agreed with the Authority. vii. The common minimum requirement of vehicle health monitoring and diagnostics (VHMD) parameters will be-SOC level, Motor speed in RPM, Vehicle Speed. The OEM should provide minimum 10 – 15
		 monthly, quarterly, annually, etc. The Contractor should make the required changes as and when provided by the Authority within seven (7) working days for the envisaged routes to be made operational. All route change or deviation in the PIS Boards should be dynamic and not static for existing routes already uploaded. vi. The Camera Based Passenger Counter shall be integrated to the SCU
		 12. Ambient temperature 13. Cell temperature 14. Motor Temp 15. BMS error/charging fault v. The Authority shall provide all the route information to the Contractor to upload into the ITS OBITS in regular intertravels such a weekly,

24.8	Entrance/Exit Guard/Step	800 mm minimum height extending \geq 100 mm more than centre line
24.0	well guard:	of sitting position of the Passenger.
24.9	Emergency exit doors, warning devices etc:	As per AIS 052/CMVR
24.10	Front/rear door, step well lights, door open sign	As per AIS 052
24.11	Towing device front/rear	Heavy duty 1.2 times (minimum) the kerb weight of the bus with 300 of the longitudinal axis of the bus. As per CMVR & IS 9760-Ring Type. Towing at Front and Rear of Bus is required
24.12	Warning triangle	As per AIS 052/CMVR
24.13	Fog lighting	As per AIS 052/CMVR (Optional)
24.14	Bumpers - front and rear	FRP or steel or or combination of both meeting requirement of an energy absorbing system. As per CMVR and AIS 052.
24.15	Passenger safety system	Mandatory allowing bus motion on doors closing and doors opening only when the bus is stopped
25	Windows	
А	Type of window	Sliding type windowpanes for Non-AC bus and fixed glass windows for AC bus.
В	Minimum height of window aperture (clear vision)* in mm	≥ 550 mm
С	Clear vision includes partition between fixed and sliding glass subject to a maximum width of 100 mm	As per AIS 052
D	Minimum height of upper edge of window aperture from bus floor	As per AIS 052
Е	Minimum width of windows (clear vision zone)	As per AIS 052
	Life cycle requirements of bus (whichever is earlier)	10 years or 16,00,000 Km for Type-III 10 years or 12,50,000 Km for Type-II
26		OEM to take responsibility of bus bodies as well as of chassis for the period of warranty assured period. OEM to ensure a mid-life refurbishment of vehicle (as per the consession agreement)
27	Air conditioning system - test procedure fortype approval	Specifications, Target results, apparatus and procedure as per UBS II. Min. 34 kw for 12m
A	Air curtains on entry/exit gates to avoid loss/gain of heat and or cool air when doors are frequently opened for boarding/alighting of Passenger with min air	Optional Fitment for AC and not applicable for Non-AC
	flow of 1000±50 m ³ /hr. at each gate. Type of air curtains at entry exit gates their power consumption etc.	Signature :- Subject : CN=MAHENDRA SINGH, SERIALNUMBER=6cbeabfc6d23672f8 d4da80 6722444d6ecr9ef3a1c207cc28d6188, ST=DELH, 0ID.2.5.4.17=110003. 0 ID.2.5.4.20=5e8477f32a1996682834344cba31cbd6te2b266c927a5c1d6b 27acbddd2r, 0U=SUPPLY CHAIN MANAGEMENT, O=ENERGY EFFICIENCY SERV ICES LIMTED, C=IN User ID.0: 17b628d30 PB: mahendra singh PB: mahendra singh) Date : 02-12-2022

	be accounted for while deciding Motor	
28	power, etc. Additional requirements	
28.1	Air circulations and ventilation in driver'sarea	 An air passage/duct/roof hatch to be provided in driver area at a suitable location for proper inflow of air inside the driver cab Drivers work area to be provided with blower or suitable device (200 mm diameter fan) to ensure proper ventilation. These devices may be capable of 3 – speed adjustment
28.2	Interior noise and pass by noise	shall conform to IS: 12832:2010 or latest and IS: 3028:2018, AIS 20 or latest respectively.
28.3	Destination boards	 Three Destination Board: Internal, Front, and Rear. (UV resistant) Alphanumeric Dual Display Technology Amber colour LED based electronic route display system in English and appropriate regional language of High Intensity illumination with automatic brightness control shall be installed at the inside, front, and rear of bus with GPS feed triggered display on internal display board and announcement of name of approaching bus-stop inside the bus. Destination boards should comply with IS 16490 BIS standards. (As per AIS-153 and AIS-052) Information on a route and its final destination should be displayed outside the bus in large text, especially on the front and side of the bus. This information should be in bright contrasting color and be well illuminated by an external light to make it readable in the dark. The pitch of the LEDs shall be optimized to cover the maximum possible area along the length for displaying the maximum number of letters. For Inside Display: The micro- processor-based Signature of the announcement shall be made for bus stop/destination synchronized with the display alternatively in appropriate regional language and English. The illumination system will be of modular display type. The display shall be mounted behind the driver at an appropriate height for clear visibility to all passengers in the bus from all angles. Ingress Protection Grade of IP 65/55 for destination Boards
29	Paint	Colour scheme as per STU requirement. The approval of design and shade of the paint be obtained from respective STU before painting. All the structural members of the bus shall be treated for corrosion prevention internally as well as externally and painted wherever required. The Polyurethane (PU) painting conforming to BIS: 13213- 1991 or latest shall be used for exteriors painting of the bus including interiors wherever required. Colour shade shall match to the shades as per BIS: 5-1978 or latest. In case of Mattheback provide the state of the bits o
	Colour Scheme	Colour scheme as per STU requirement? The approval of design and shade of the paint be obtained from respective STU before painting.

		 Exterior, interior colour schemes and logo/ graphics to be applied will be as notified by Public Transport Authority. The buses must be recognizable as environmentally friendly battery buses. Buses shall bear CESL Logo and branding as provided by CESL Logos shall be lodged onto the bus body as per requirements of CESL.
30	Jack	As per CMVR & bus code
31	Fire Detection & alarm System (FDAS)	As per AIS-153
32	Tool Kit	As per CMVR & bus code AIS052
33	GVW	As per CMVR Rules & its amendments from time to time.
34	Fire retardancy	All material used inside the bus, should be fire retardant as per IS 15061:2002

Note:

- I. The Bidder shall submit Technical Specification of Components/Systems of Electric Propulsion system and submit the test certificate for these components as per the prescribed standards from the notified testing agencies like ICAT, CIRT, ARAI, ICAT, NATRaX, VRDE, etc.
- II. All electrical wiring harness and accessories used on electric bus shall comply necessary automotive safety standards.
- III. All units & electrical accessories and wiring harnesses use on the bus shall be so mounted that they are easily accessible and can be removed without disturbing other components. Further these accessories and wiring harnesses shall be well protected to prevent ingress of water.
- IV. Mandatory Certification Compliance and acceptance tests for Safety Components, Batteries, Buses and Requirements for Battery Charging Infrastructure Systems etc. by competent authority to be obtained.
- V. Mandatory Certification Compliance for Safety Components, Batteries & Buses should be met
- VI. The Bidder shall ensure the fitment of all electric propulsion system components on the bus confirming to National/International Standards. In case if the standards are not available, then it should confirm to the company's standard based on sound technical information and Engineering practices.
- VII. The Bidder shall undertake type approval testing of Traction Batteries pack fitted on the bus as per CMVR notified standard and submit copy of Approved certificate.
- VIII. The Buses shall meet all the above technical specification requirements. The buses shall be deemed satisfactory for operation only after the buses meet all the requirements prescribed above.
- IX. The Bidder shall monitor the operation of these Buses and sort out the operational issues, if any.
- X. The Bidder shall ensure safe & successful operation of these buses. In case of breakdown in these vehicle systems or battery charging infrastructure system, the Bidder shall immediately rectify the defects / replace parts and make the Buses, vehicle systems or charging system operational as the case may be.
- XI. Bus manufacturer needs to provide lifetime warranty for the battery, electric motor, and controller. Smaller repairs had to be resolved in six hours while system faults with battery, electric motor and controller have to be corrected within 48 hours. The warranty also requires the manufacturers to replace batteries when the state of health (SOH) falls below 80 percent. The bidder shall provide quarterly reports on the SoH of battery packs of each bus. This will be measured at the charger level by the energy (kWh) uptake of the battery packs while charging from 25% to 100% SoC. The relative deterioration of energy uptake of the battery packs will be used to determine the SoH of the battery to be calculated at energy uptake in quarter (kWh)/ energy uptake in first quarter post COD.
- XII. Manufacturers need to meet high safety standards for battery packs. These standards for battery packs. These standards for battery packs. These standards for battery pack a high pack and statisfactory back and statisfactory pack and statisfactory pack and statisfactory back and statisfactory

- XIII. Bidder to submit the type approval certificate for the allocated bus at the time of delivery of buses to the respective cities.
- XIV. Camera Based Passenger counting system should be Bi Directional Counting on a Definable Line (Polygon), Variable position of counting lines, Adaptation to on-site requirement, No Double Counting, Automatic Compensation for interference from swinging and sliding doors, It shoud also have real-Time Video Streaming or recording of video files to external storage media, Start and Stop function via door contact, No interference with other functions. The system shall achieve minimum 95% counting accuracy. The system should be intergrated through ITS OBITS to the backend of the System(s) of the Authority. The cost of such integration shall be the responsibility of the Bidder during the Contract Period.
- XV. Camera Based Passenger counting system should generate Total Passenger Report- A basic report to analyze passenger counts on a single vehicle only. Time resolution shall be by day, week, month or year. Option to select a range of dates shall also be available; default time interval shall be by day with maximum 90 day resolution allowed. Report output shall be displayed on screen as tabular, chart or both. Export feature shall be of the tabular output only, downloadable as a CSV file.
- XVI. Integration to Existing ITMS/AFC System: bidder shall provide the complete ITS OBITS system as specified herein above in the Buses. The bidder shall also ensure to supply equipment compatible with existing ITS System of Authority so as to enable smooth integration. Bidder is responsible for regular maintenance ITS OBITS equipment installed by throughout the Contract Period. The Contractor and Authority agree to share interfacing protocols and Active Programming Interface with each other for smooth integration of ITS OBITS equipment provided by Bidder to the Authority's ITMS. The Authority can mount any equipment in the Buses provided by the Bidder at its own cost and the Bidder shall be responsible for the safety and security of such equipment during the Contract Period.



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Annexure 1 Camera Based Passenger Counter Specification & Functionality

A. Feature and Functionality

- 1. The APC (Automatic Person Counting) system shall use ceiling mounted stereovision cameras giving a 3D representation of the count zone.
- 2. The APC sensors shall be connected in a serial daisy chain or parallel wired star format.
- 3. There should be no impact on accuracy due to bad lighting. The APC should count with the light of up to 30 LUX, with no shadow influence.
- 4. There should be no impact on accuracy due to steps. Step counting feature should be there.
- 5. The Ethernet connector on the device should of Industrial Grade like M12 connector.
- 6. Power Supply should be 24V DC
- 7. The power consumption of the device should be less than 5 watts.
- 8. Aperture angle should be greater than 100°
- 9. APC should be able to monitor area of up to 4 x 4 meter
- 10. The APC should be Configurable and versatile based on the vehicle type.
- 11. The APC shall have the capacity to retain count data for a minimum of 30 days either onboard or offboard to an external storage media or cloud based servers.
- 12. In the event of interrupted power to the APC sensors, no counting data shall be lost.
- 13. The APC system has to give a control video via Ethernet to control the entrance area (door free).
- 14. The APC system has to support the storage and the verification of control videos and of counting results to control the accuracy of the system in an offline state.
- 15. The APC sensor shall determine the count result via onboard processing. The real time video streaming or recording of video files to external storage media shall be made available to the Authority and integration of real time streaming through the OBITS with the backend of the Authority system(s) is the responsibility of the bidder.
- 16. All count results shall be time-stamped via a synchronized onboard real-time clock. The operator shall provid passenger reports based on daily, weekly and monthly passenger counts at single vehicle, route and fleet level with the option of downloading data as a CSV file format.
- 17. The APC should eliminate the counts resulting from partial passages and motion reversals
- 18. Automatic passenger counter should be able to detect passenger in both direction ie bi Directional Counting on a Definable Line (Polygon), variable position of counting lines, adaptation to on-site requirement, no double counting, with automatic compensation for interference from swinging and sliding doors
- 19. The Automatic Passenger counter should be fixed at the gate of the bus and should be standal test standal

Date : 02-12-2022

20. The automatic passenger counter device should have nin mum following certifications:

B. Technical Specifications – Specifications and Integration

- 1. An onboard computer shall provide a communication interface to the APC sensor network.
- 2. All APC sensors shall be accessible from the onboard computer or OBITS.
- 3. The onboard computer shall provide the user with a software interface to monitor the health of the counting system.
- 4. The onboard computer shall provide an Internet connection for the local counting database to be replicated in real-time to an Internet-based destination.
- 5. Processor: Minimum ARM 9 or ARM 11 or Intel Atom 1.6 Ghz
- 6. RAM: Minimum 1 GB
- 7. SSD: 32 GB
- 8. VGA: Single port
- 9. Network: 10/100 Gbps
- 10. USB: 4 ports
- 11. RS232: 1 port
- 12. GSM & GPRS module with antenna
- 13. Wi-Fi: Not required / optional
- 14. Power Input: 24 V DC with power consumption
- 15. Internal Slot for putting the mobile SIM card.
- 16. Operating Temp: 0 to +60 degrees
- 17. Mounting Kit for buses holes for the screws / bolts should be there.
- 18. Certification:
 - a. EMC: FCC Part 15, EN55022, EN55024, EN 50121-3-2, EN 61000-6-2
 - b. Radio: FCC Part 22, 24, RSS132,133, EN301 489-1, EN489-3 (-GP Only), EN 301 489-7, EN301 511,AS/ACIF S042.1, S042.3
 - c. Shock & Vibration Certification: IEC 61373 category 1, class B
 - d. Safety Compliance: UL60950-1, cUL60950-1, IEC60950-1



Annexure 2 <u>NCMC Based Ticket Validator Specifications</u>

A. Feature and Functionality

- 1. The on board ticket validators will enable commuters to use National Common Mobility Card (NCMC) for fare payment and pre-paid ticket and pass validation.
- 2. The Validator should provided for the AFC Provider of STU/Authority to upload the software and security features in the OS provided in the Validator. The AFC Provider will integrate the Validator through the ITS to the AFC software at the backend which would be integrated into the Acquiring Bank / Central System.
- 3. The flow of data of regular transaction will be through the ITS as defined by RBI regulations for security and safety guidelines. This is the responsibility of the AFC provider of the STU/Authority and not the Bidder.
- 4. The validators will allow commuters to pay fares through multiple media types read including smartphone/tablet/smartwatch displays & paper tickets. The hardware with basic OS, wiring and wiring would be provided by the Bidder, the sofrtware and the complete AFC solutions would be provided by the AFC Provider of the STU/Authroity and not the Bidder.

No wiring for any kind of retro fitting will be allowed for the validators after deployement. All wiring for the validators in the buses would be pre installed irrespective of the validators being installed during the contract period.

Physical	
Dimensions	less than 300 mm(L) x 225 mm(W) x 150 mm(H), mounted on stanchions near passenger entry and exit doors
	minimum 4.3" display, sunlight readable with contrast ratio 800:1 with capacitive multi-touch, viewing angle (CR>10),
Display	
Body	ABS (Acrylonitrile Butadiene Styrene)
Power Supply an	nd external connectivity
Voltage	24V
USB Port	1* Type-C supporting OTG (on the go)
Operating Envir	ronment
	Storage temp:-20°C~60°C
Temperature	Operating temp:0°C~50°C
Humidity	5-100% humidity
Shock and	Signature :
Vibrations	IEC 61373 category 1, class B 5ubject: CN=MAHENDRA SINGH, SERIALNUMBER=6cbeabt6d 672244d6ec7296fa1c207cc28d61b8, ST=DELH, 01D.2.5.4, 17 1D.2.5.4.20=5e477fb32ab1996688234344cba31cbd6feb2b68 27acbadd2fc, 0U=SUPPLY CHAIN MANAGEMENT, 0=ENERGY E ICES LIMTED. C=IN
CPU and OS req	

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B. Technical Specifications

CPU	ARM Cortex-A9 processor or higher	
Operating System	Android 7.0 or higher/ Linux OS with full API and device access for developers	
RAM	1GB or above	
Device Memory	4 GB or above	
Communication and	d Connectivity	
SIM Slot	1* NANO SIM & 1* MINI SIM	
Cellular Data	Mobile Data: 2G/3G/4G	
WIFI	WiFi: 2.4GHz/5GHz, IEEE 802.11a/b/g/n	
	GPS, Sensitivity: -159dBm; receive frequency: 1575.42MHz; satellite	
Positioning	Channel: 20 channel; positioning accuracy: <10m	
Bluetooth	Bluetooth 2.1/3.0/4.2 and BLE	
Speaker	Stereo speakers with digital control for audio playback	
Readers and Valida	tion	
	1D/ 2D barcode reading. Media types read: Smartphone/tablet/smartwatch	
QR code reader	displays & paper tickets	
NFC	NFC: ISO/ICE 14443 Type A&B, Mifare cards	
Smart card	MIFARE PLUS SE 1K, operating distance upto 5 cm	
Card Readers	Magstripe: ISO 1/2/3, ISO 18092 compliant	
	RuPay qSPARC certified for NCMC Contactless: EMV Level 1 and 2 compliant Certified PCI PTS 5.x, EMV certified Smartcard: EMV Level 1, NPCI Rupay	
Certification	Qsparc (attendant and unattended)	



Disclosure against Conflict of Interest

In line with clause no. 8 of Section-IV, Vol-I of National Electric Bus Program (NEBP) Tender-I and with Grand Challenge Tender, Convergence Energy Efficiency Services (CESL) discloses a commercial relationship with TRILEGAL.

CESL have the right to appoint any firm/agency as per requirement and will disclose the same as and when needed.

Dated: 1st Dec,2022



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