

TRA21-01 - Supply and Delivery of School Buses - Quote Form - Bus Unit Price: Type C Electric

Line Item	Bus Description	The Lion Electric Co	Dynamic Specialty Vehicles	First Truck Centre Vancouver	Western Canada IC Bus Inc.
		Submission 1	Submission 1	Submission 1	Submission 1
		Unit Price	Unit Price	Unit Price	Unit Price
1	76 passenger Type C Electric. All units and components must meet Federal and Provincial regulations and requirements and current D250.	\$373,788.00	No 76 Passenger Bid	\$416,205.00	\$349,500.00
2	70 passenger Type C Electric. All units and components must meet Federal and Provincial regulations and requirements and current D250.	\$370,900.00	\$344,116.00	\$412,490.00	\$348,800.00

TRA21-01 - Supply and Delivery of School Buses - Specification - Base Bus Specifications: Body - Type C Electric

Line Item	Body Specifications	The Lion Electric Co		Dynamic Specialty Vehicles		First Truck Centre Vancouver		Western Canada IC Bus Inc.	
		Submission 1	Submission 1	Submission 1	Submission 1	Submission 1	Submission 1	Submission 1	Submission 1
		Yes/No	Additional Information	Yes/No	Additional Information	Yes/No	Additional Information	Yes/No	Additional Information
1	Four (4) additional power supply feeds at body power source.	Yes		Yes		Yes		Yes	
2	Crossing arm deactivation switch	Yes		Yes		Yes		Yes	
3	Full power steering - minimum 18" diameter steering wheel Tilt steering column telescopic	Yes		Yes		Yes		Yes	
4	HORNS Dual electric	Yes		Yes		Yes		Yes	
5	Instruments: Dash mounted hr meter Battery Monitor speedometer in kmh c/w odometer in km Range (2) air pressure gauges if air equipped	Yes		Yes		Yes	We do not have Range in the dash EV dash is similar to existing diesel with addition of SOC Guage	Yes	
6	Low air warning - light and buzzer	Yes	Not applicable with hydraulic brakes	Yes		Yes		Yes	
7	School buses must be equipped with heating units and be able to sustain 15.5 degrees C (plus or minus 2 degrees) inside the vehicle when the outside temperature is 0 degrees C ambient. Heaters should not decrease vehicle range by more than one percent. Please describe achievable in vehicle temperature when outside temperature is -30C and provide the expected impact of heating the interior cabin temperate on vehicle range especially when outside temperature conditions are very cold.	Yes	Lion also offers an electric heater option that is currently being used by all the Lion electric school buses. Consumption of 4-6 kW per hour; Pre-heat setting to heat the cabin while plugged in using the energy from the grid (also available with the auxiliary option); Pre-cool setting not available because the AC system is very efficient and cools down the vehicle much faster than the heating system does; Lion offers an 80000 BTU fuel heater from common brands such as Pro-heat and Spheros. The fuel fire heater emits on average 2238 pounds of CO2 per year (considering that the tank would be refilled about 4 times in extreme weather	Yes	Reaching and sustaining 15.5 degrees C (+/- 2 degrees) inside the vehicle when the temperature is 0 is not a problem. Further testing is required to provide the achievable in-vehicle temperature when the outside temp is -30C. The battery thermal management system typically uses less than 10% of usable power to maintain operating conditions. This does not account for cabin heat loads. When cabin heat is activated cabin heat will consume 6% - 20% of usable power.	Yes	Yes heaters can meet the desired temp but not without more than -1% effect on Range	Yes	Dual heating system included: electric and fuel fired. Both systems will operate on a closed loop. The electric heater (21kW) sustains heat between 18c to 23c (defined as comfort) down to -10C (14F) ambient temperature. In temperatures below -10C the fuel-fired heater will maintain comfort. Operation of heating systems has been taken into consideration in our range statement. The fuel fired heating system is used below -10C and to maintain maximum range.

8	Vendors should describe their proposed heating systems including fuel source and flexibility to accommodate different fuel types as requested by local school district. The use of electric heaters to pre-heat the vehicle cabin is not preferred; however using electric heat to keep the batteries warm is acceptable. Vendors should also describe their proposed system for pre-heating vehicle cabins.	Yes	The heating system on the Lion school buses was designed as a system where the heater can begin warming the passenger cabin before the bus even begins its daily routes. This works by allowing the unit to start while the electric school bus is still connected into the charging station. Thus it heats up the school bus without draining any energy from the batteries because the energy being used to heat the bus is being drawn directly from the charging station. Using this "preheat" method as we call it means that the system can increase the interior bus temperature and maintain it at 21 degrees C during roll-out regardless of what temperature the passenger cabin started at. We have many electric school buses deployed in areas where winter weather	Yes	The Thermal Management System consists of three electric heaters of which one is dedicated to heating the propulsion batteries and two are dedicated to cabin heat. As a supplement to the electric heaters there is an optional Webasto diesel-fired heater that can provide additional heat for the cabin. The electric heaters and/or the fuel-fired heater are capable of pre-heating the cabin while the bus is charging. While the bus is charging the driver can turn on the cabin heaters while performing pre-check which will use power from the charger to run the electric heaters and not affect the battery charge. With a webasto heater the timer can be set on the EV no different than a diesel engine to pre-heat the cabin.	Yes	Our vehicles are designed to zero emission 2 Electric heaters are used to provide heat for the battery system and cabin area. Standard under-seat heater are used to heat cabin	Yes	When vehicle is not in use during cold temperatures it is recommended to keep battery temp above 0C by keeping the vehicle plugged in. When vehicle is in use the vehicle BMS will control temperature. There are no additional maintenance or operational requirements.
9	LIGHTS: Front headlights: HD All exterior lights to be LED Cluster lights: front and rear - six (6) in total LED 8 light system non-sequential with master switch	Yes		Yes	Standard: Blue Bird's E-Z Light Check System allows drivers to check all lights with the flip of a switch.	Yes		Yes	
10	Body insulation including walls ceiling and roof bows - to be fiberglass or equivalent Dust intrusion package on underside of bus up to floor joint	Yes		Yes		Yes		Yes	
11	WINDSHIELD Laminated safety glass tinted Please state what is offered.	Yes	Laminated glass not tinted	Yes	This 4-piece laminated tinted design enables a simple change of just the damaged section of glass in the event of a chip or crack. This feature is much less expensive than replacing an entire one-piece windshield.	Yes	Tinted safety glass curved & bonded windshield provided	Yes	3-Piece Flat
12	WINDOWS Passenger windows split sash type tinted throughout. Thermal where required Driver's window sliding type thermal pane lockable Emergency windows evenly spaced.	Yes	Laminated glass not tinted	Yes		Yes		Yes	
13	Exterior Lettering Six Inch - (Purchaser name) both sides at belt line	Yes	Lion can work with ASTS preferred lettering vendor and can apply them before delivery	Yes		Yes	As required by district	Yes	
14	Four Inch - Bus Number two front corners and opposite rear license plate	Yes	Lion can work with ASTS preferred lettering vendor and can apply them before delivery	Yes		Yes		Yes	
15	Two Inch - Capacity GVW (Purchaser name) on side panel back of entrance door and side panel below driver.	Yes	Lion can work with ASTS preferred lettering vendor and can apply them before delivery	Yes		Yes		Yes	
16	Floor 5/8 plywood subfloor or equivalent secured with screws only (no nails) water-proofed and sealed at joints with silicone sealer including floor to wall seams; floor covering and entry steps	Yes		Yes		Yes	We use screws only	Yes	
17	Vandal lock for Emergency and Entrance Doors	Yes		Yes		Yes		Yes	

18	Heavy duty entrance door control - air or electric operated Entrance Door must be outward opening	Yes		Yes	Air operated door and accessories included in the base price. Electric controlled accessories available as an option.	Yes	Electric only	Yes	
19	Two (2) auxiliary 6" electric defroster fans Separate switches on panel	Yes		Yes	Locations to be specified at time of order	Yes		Yes	
20	Driver's dome light on separate switch.	Yes		Yes		Yes		Yes	
21	Rear dome lights on separate switches (with dimmers if available)	Yes		Yes	Separate switches for front and rear with dimmers included in the base price.	Yes	Driver's dome front & rear half of dome lights on separate switches (no dimmers available with LED dome lights)	Yes	
22	AM/FM CD RADIO W/PA Flush mounted speakers to match bus	Yes		Yes	AM/FM MP3 USB SD MMC BT with PA and Driver Remote Mic included.	Yes		Yes	
23	Driver's seat to be deluxe high back air seat fully adjustable - 6-way with lumbar support and fold down arm rests. Air foam rubber filled with heavy duty covering. cloth fabric	Yes	At an additional cost to be determined upon selection of preferred seating	Yes		Yes		Yes	
24	EMERGENCY EQUIPMENT COMPARTMENT Above windshield; all emergency equipment to meet standards	Yes		Yes		Yes	FAK & Fire extinguisher in overhead Compartment Triangles on Vestibule floor	Yes	
25	Mud flaps front Mud flaps rear with rubber fender skirts	Yes		Yes		Yes		Yes	
26	MIRRORS (EXTERIOR) Right and left side primary and convex mirrors; remote adjustable Exterior convex crossovers self-defrosting mounted on right and left sides of hood	Yes		Yes		Yes		Yes	
27	Two (2) LED stop arms with strobe lights (red) air operated one (1) front mounted (1) rear mounted. Both with wind guards	Yes		Yes		Yes		Yes	
28	Wet arm windshield wipers intermittent / delay preferred	Yes		Yes		Yes		Yes	
29	Light coloured rubber floor covering and entrance steps. Specify colour.	Yes		Yes		Yes	Grey Colour	Yes	
30	Seat spacing minimum 24" knee clearance Frame seat belt ready	Yes		Yes		Yes		Yes	
31	Aluminized side panelling	Yes	Lion leverages Composite Body Panels Gelcoat no corrosion & no water leaks rendering more durable than aluminum and accepted as an equivalent.	Yes		Yes	Galvalume interior side walls	Yes	
32	77" minimum interior headroom at highest point. Please state Headroom	Yes		Yes	77"	Yes	78" Headroom Standard	Yes	78"
33	Interior mirror - minimum 6" up to 10" x 30" Sun visor - Plexiglas 6" x 30"	Yes		Yes		Yes		Yes	
34	Two (2) roof emergency hatches / vents	Yes		Yes		Yes		Yes	
35	Right side luggage compartment 84" preferred Specify largest size available based on body size	No	Not available	No		No	Not available on EV	Yes	91" Available
36	Body fully undercoated for noise and enhanced rust protection	Yes	Lion fully undercoats its body. Please note that an all-electric school bus is noiseless. Please note that the plywood flooring is installed above an aluminum extrusion therefore fully rust protected.	Yes	Asphalt emulsion undercoating included. Options: Premium Undercoat Sulfonate Enhanced DTM Modified Wax coating. Replaces the standard asphalt emulsion. Provides approx twice the performance in highly corrosive environments where de-icing chemicals are prevalent. 350	Yes	Asphalt emulsion Undercoating standard full undercoating	Yes	Water Based Asphalt Emulsion installed post body-drop is included. Chemguard metal treatment is available optionally.
37	Each unit shall be equipped with a Sound Generator that complies with FMVSS and CMVSS 141	Yes		Yes		Yes		Yes	

TRA21-01 - Supply and Delivery of School Buses - Specification - Base Bus Specifications: Chassis - Type C Electric

Line Item	Chassis Specifications	The Lion Electric Co		Dynamic Specialty Vehicles		First Truck Centre Vancouver		Western Canada IC Bus Inc.	
		Submission 1		Submission 1		Submission 1		Submission 1	
		Yes/No	Additional Information	Yes/No	Additional Information	Yes/No	Additional Information	Yes/No	Additional Information
1	Chassis and Body Year	Yes	LionC 2021	Yes	Blue Bird 2021	Yes	Thomas Built Bus 2022	Yes	2022 International
2	Propulsion system - vehicle performance include: A sustained speed of 70 kph on a 2.5% grade; and 20 kph on a 20% grade. An ability to accelerate to 20 kilometers per hour (kph) in four seconds; to 40 kph in 10 seconds; 50 kph in 20 seconds and 70 kph in 35 seconds. Expectations are that the school bus shall be cable of a minimum of 200 kilometer range on a single battery charge on route measured with 50% city miles and 50% highway miles. Vehicles should be capable of operating at minus 30 degrees Celsius (-30C) to 35C with limited loss of range (no more than 10% reduction of documented range) in these variable conditions. This range rating must be tested with all normal accessories running in the conditions described including terrain encountered in BC.	Yes	Compliant with all requirements. Please note that loss of kWh is attributed to the accessories chosen. Lion is the only OEM with demonstrated deployments in both very warm and very cold weather. LionC has its CMVSS certifications that can be provided upon request	Yes	A sustained speed of 70 kph on a 2.5% grade: YES A sustained speed of 20 kph on a 20% grade: YES An ability to accelerate to 20 kilometers per hour (kph) in four seconds: YES An ability to accelerate to 40 kph in 10 seconds: YES An ability to accelerate to 50 kph in 20 seconds: YES An ability to accelerate to 70 kph in 35 seconds: YES In ideal conditions the system is capable of 1.3 kWh/mile which provides a range of ~ 120 miles (193 km). Typical users experience a range of ~ 80 - 100 miles (128km-160km). Driving habits duty cycle vehicle weight and accessory load conditions can affect this number. The bus has not been tested with all normal accessories running in the conditions described including terrain	Yes		Yes	
3	Describe vehicle performance while fully loaded in terms of maximum operating speed grade-ability and acceleration. Please provide documentation of for verifying submitted vehicle performance claims to meet above performance specifications.	Yes	Certification to be supplied upon award	Yes	See file: BC_RFSO-EV2021.pdf - section Gradeability & Acceleration Data	Yes	Our range is up to 134 miles (215km). This is dependent upon driver terrain HVAC. TBB has not validated vehicle performance to the described requirements	Yes	Range: 200km in bid stated conditions. Acceleration: All acceleration times comply with bid stated conditions. Max Speed: 115km/h 20% grade 0-100 km/h in < 40 sec Peak Power: 250kW (335 hp) Continuous Power: 160kW (215 hp) Peak Torque: 15700Nm (11570 ft-lbs) Continuous Torque: 2100 Nm (1549 ft-lbs) See Attachment.

4	Vehicles should have the ability to change the powertrain deferential ratio to maximize range performance in mountain routes city routes highway routes or a combination of mountain city and highway routes. Please describe your process for achieving this?	Yes	As detailed on our Brochures Lion's electric motor has one drive no transmission. Lion is partnering with Dana for its powertrain thus maximizing range performance	No	Blue Bird has chosen to use the 5.29 single rear axle ratio as a great compromise for the typical school bus stop and go route whether that is in mountain routes city routes highway routes or any combination of the regional operations. Since Blue Bird School Buses do not use a transmission or a two-speed rear axle we not only keep the overall weight of the school bus lower we do not encounter the additional losses of efficiency that the vehicle would have with the added weight of a transmission. If a transmission and two speed rear axle were to be used it would contribute to a greater loss of efficiency.	Yes	Vehicle may be customized with a selection of approved powertrain differentials 5.88 and 6.14 Rear axle ratio	Yes	Differential axle ratios are determined by the axle on the vehicle which are semi-permanent component. Changing the ratio would require a different axle. The axle differential ratio is designed to achieve an overall performance that is suitable for most environments.
5	Wheelbase up to 280" - Specify for Each body size	Yes	Please refer to Brochures	Yes	273" Wheelbase with 3303 body size (71 Passenger size bus)	Yes	TBB wheelbases are 259 & 279 only	Yes	276"
6	Remote air tank drains	No		Yes	Highly recommend heated automatic drains for all reservoirs. If remote manual drains are required then they must be on the left. Heated automatic drains included.	Yes		Yes	
7	Rear tow hooks	Yes		Yes		Yes		Yes	
8	Wheels - Disc hub piloted	Yes		Yes		Yes		Yes	
9	Tires - Six (6) -11R22.5 Michelin XZE 2 preferred	Yes	Additional cost of \$2100	Yes		Yes		Yes	
10	Rear Axle - Capacity: 19 500 lb Maximum speed required: 110 kmh Cruise control set at 100 kmh 21 000 lb air ride suspension.	Yes		Yes	Maxium rear axle capacity is 23000 lb. Maximum speed is 104.6 kmh. Cruise control is not available. Air ride suspension is 23000 lb.	Yes	Cruise control not available Max speed = 105km/h	Yes	
11	FRONT AXLE 10 000 lb minimum 10 000 lb spring suspension	Yes		Yes		Yes		Yes	
12	AIR BRAKES S cam W/ABS Min. 13.2 cfm compressor Spring brakes for emergency and parking Auto slack adjustors long stroke Air dryer 16-1/2 x 5 Front 16-1/2 x 7 Rear backing plates	Yes	If the hydraulic brake option is chose, clients will have a \$ 5,900.00 discount applied on the base price	Yes		Yes		Yes	
13	Regenerative braking to charge batteries must meet all Canadian Motor Vehicle Safety Standards in regards to braking systems	Yes		Yes	Bluebirds regenerative braking system to charge batteries meets all Canadian Motor Vehicle Safety Standards in regards to braking system.	Yes		Yes	

14	BATTERY Vendors should describe their proposed energy storage/battery system including the number of battery packs and battery chemistry. "Battery efficiency (kilometers per kWh) "Time (in minutes) to charge batteries from 20% to 100% state of charge on a level 2 charger. "Time (in minutes) to charge batteries from 20% to 80% state of charge on a level 2 charger. "Battery capacity (amps per hour per cell) "Battery storage capacity (kWh) "Total usable battery energy storage capacity (kWh) "Total battery pack C-rate. "Total battery pack E-rate "Battery Cycle Life in number of charge-discharge cycles at a specific depth of discharge (DOD) "Battery thermal management type (describe battery maintenance and operational requirements when vehicle is in use and not in use	Yes	LionC Type C all-electric school bus: 168 kWh battery pack for up to 200 km – lower range available -168kWh equates to 4 battery packs - Lion leverages lithium ion batteries. Scenario 1 with a 19,2 kW charger : 20% to 80% : charging to be obtained in approximately 315 minutes (5,25 h) Scenario 2 with a 19,2 kW charger : 20% to 100 % : charging to be obtained in approximately 420 minutes (7 h) " Battery capacity (amps per hour per cell) = Total is 120Ah cells for 1 battery ; 96 cells so 1,25 Ah per cell " Battery storage capacity (kWh) 42 kwh per battery " Total usable battery energy storage capacity (kWh) : 4 batteries : 142.8 kwh ; " Total battery pack C-rate. Lion C : 0.68	Yes	Number of packs: 7 batteries in two packs for a total of 14 batteries Chemistry: Li-NMC-G batteries which is Lithium-Nickel Manganese Cobalt-Graphite Battery efficiency: Will dependent on several factors including driving habits terrain and use of a/c and heaters. Time to charge Level 2 (20%-100%): 330-360 minutes Time to charge Level 2 (20%-80%): 250-280 minutes Battery capacity: 126 Ah Battery storage: 155 kWh Total usable battery storage: 124 kWh C-rate: The charge rate is 1C and the discharge rate is 2C E-rate: This is proprietary and will not be disclosed Battery life cycle: 3000 cycles at 70% depth of charge Battery thermal management type: Blue Birds	Yes	2 battery packs - 110kW=220kW Battery Capacity 1.474 vehicle efficiency total usable battery capacity = 198kW 20% to 80% Charge = 1.2hrs on 60kW charger - 2.75hrs on a 24kW charger 194kWh usable/available energy onboard at beginning of life (97kWh per pack 2 packs per vehicle) ~1c/E peak charge rate ~1.8C/E peak discharge rate ~0.5C/E peak continuous charge rate ~0.7C/E continuous discharge rate	Yes	The Battery System consists of 2 Strings of 3 Battery Packs each achieving a total capacity of 210kWh and a nominal voltage of 608V. Each pack has a 1P63S cell configuration. The cells are prismatic and use LFP chemistry. Lithium-Ion Batteries (6) 210 kWh total 608V 345Ah total. Vehicle efficiency 0.84 kwh/km Level 2 Charge time: 20kW x T = 60% x 210kWh T = 378 Mins Useable capacity = 70% x 210kWh = 147 kWh Pack C Rate = 1 (continuous discharge) Pack C Rate = 0.7 (continuous charge) Attachment
15	Back-up alarm 97 dB minimum	Yes		Yes	Back up alarm 112dB	Yes		Yes	
16	High capacity dry type air cleaner c/w air restriction gauge to be mounted on dash or air intake	No	Not applicable on an all-electric vehicle (all-electric engine)	No	This vehicle uses an electric motor for its propulsion system and therefore an air cleaner is not required.	No	there is no air restriction gauge on our EV	Yes	
17	Battery Management System	Yes	The Lion proprietary BMS served its purpose earlier than expected when LG introduced its new more energy dense modules whilst no longer being allowed to provide the matching LGBMS. The Lion proprietary BMS combined all the load commuting features its predecessor couldn't handle while making the battery monitoring overhead more cost effective. Constant efforts are currently invested to achieve ASIL C compliance according to the ISO26262 standard for our proprietary BMS. Mastering and having full control over our own BMS enables Lion to adapt to any current and future chemistry or form factor from any potential supplier.	Yes	Blue Birds Battery Management System (BMS) facilitates smart charging by monitoring battery State of Charge (SOC) and other parameters associated with State of Health (SOH) and communicates to the system controller (SCM). The SCM will then determine how much charge should be provided to the battery based on the current state of the battery and control the on-board chargers appropriately. The SCM also communicates the desired charge rate through the CCS1 connector to the off-board charger to ensure proper charge rates are delivered. The BMS monitors SOC and SOH and reports it to SCM. This data is recorded every 10 milliseconds.	Yes	Battery thermal management includes battery coolant heater and chiller to manage battery temperature when charging and driving	Yes	Each battery pack is equipped with a battery management system to monitor battery life state of charge and other proprietary variables.

18	On-Board Charging Systems Vendors should describe their preferred charging/discharging systems including EVSE noting that the expectation is that vehicles will be fitted with on board AC (19.2 kW) bidirectional charging/discharging systems that conform to the most recent SAE J1772 standards and/or other relevant standards for V2B bi-directional power flow. The vehicles should also be fitted with DC Level II charge/discharge coupler capable of a sustained maximum of 90kW of power transfer at a maximum of 200 AMPS. The coupler should conform to all current SAE standards. All charging system components shall have CSA certification or provide acceptable documentation. Charging systems shall be capable of operating from -30C to 40C with no more than 10% degradation in performance	Yes	The Lion school buses are compliant to all EV Level 2 Level 3 AC/DC or V2G options on the market. Further Lion has created an entire division Lion Energy mentioned above at point 8 and in our response document that can help you determine the best charging solution depending on the vehicle battery pack and duty cycle.	Yes	Blue Bird offers a standard CCS1 connector that allows for either Level 2 AC charging or Level 3 DC Fast Charging. For maximum 19.2kW charge rate each Level 2 EVSE must be supplied with single phase 240v 80 amp ac current with a 100 amp fuse. Our bus will fully charge with AC charging from 0-100% in about 8 hours. There are several Level 2 EVSE's available on the market today that meet these charging requirements including the Nuve PowerPort. For maximum 60kW charge rate each Level 3 DCF station must be supplied with three phase 480VAC 80 amp. A bus will fully charge with DC Fast Charging from 0-100% in about 3 hours. There are several Level 3 EVSE's available on the market today that meet these charging requirements	Yes	Our EV has DC batteries and require DC charging charger coupler meets SAE	Yes	See Attachment
19	Heavy Duty hoses to meet current coolant standards.	Yes		Yes		Yes		Yes	
20	Data collection for performance and analytical comparisons must be available on a regular basis for both ASTSBC and the purchaser. Training must be provided	Yes	Reporting is available through Lion Beat subscriptoin	Yes		Yes		Yes	On Command will be used and will be provided to purchaser and ASTSBC.
21	Oil lubed front wheel bearings or sealed bearings	Yes		Yes		Yes		Yes	
22	SERVICE MANUAL AND DIAGNOSTIC SOFTWARE Service manual for engine and chassis Engine and body diagnostics software or licensing if web based. Diagnostic Training must be provided to each purchaser	Yes		Yes	Body diagnostics software service manual and training are included. Cummins Corporation currently is not offering any technical manuals on their powertrain and battery management system. Due to the high voltage electrical systems integrated into Blue Bird's Bus platform Cummins is responsible for all repairs made to these systems. Please call Dynamic for service and warranty to facilitate and expedite services required.	Yes	Parts & service info on-line engine diagnostic software 1 per district	Yes	
23	Supply Driver Training and Orientation to ASTSBC Trainers to supply training for drivers upon bus delivery.	Yes		Yes		Yes		Yes	
24	Supply line setting ticket	Yes	To be supplied upon the reception of the PO.	Yes		Yes		Yes	
22	Electronic Stability Control according CMVSS 136 and meets the testing procedure outlined in FMVSS 136	Yes		Yes		Yes		Yes	
25	Heater cut off valve at source	Yes		Yes	Located on the left wall in the driver's cockpit area	Yes		Yes	

26	Battery location and weight - please describe	Yes	Battery location under the chassis. 4 batteries (276kgs * 4 = 1104kgs)	Yes	The high voltage batteries are located under the chassis frame rails between the front and rear axle. Approximate weight is 1406 kg.	Yes	Location is mid bus under frame rails 1400kg	Yes	Batteries are mounted in between the frame rails and rigidly attached using welded and bolt on brackets. Each battery pack weighs 491 lbs.X 6 Packs. Batteries are protected from the elements. Batteries are backed by international standards rating of IP68 and are deemed fit enough to withstand dust dirt and sand and are resistant to submersion up to a maximum depth of 1.5m underwater for up to 30 minutes and encased in an aluminum box.
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TRA21-01 - Supply and Delivery of School Buses - Quote Form - Option Pricing: Type C Electric

Line Item	Optional Pricing	The Lion Electric Co			Dynamic Specialty Vehicles			First Truck Centre Vancouver			Western Canada IC Bus Inc.		
		Charge Type	Unit Price	Additional Information	Charge Type	Unit Price	Additional Information	Charge Type	Unit Price	Additional Information	Charge Type	Unit Price	Additional Information
1	One (1) additional spare tire mounted	Additional	\$975.00		Additional	\$712.00	Shipped loose Mounted with carrier at side frame between axles add 540	Additional	\$775.00	Shipped Loose	Additional	\$775.00	
2	Air horn roof mounted	Not Available			Additional	\$141.00		Additional	\$129.00		Additional	\$195.00	
3	Current Gatekeeper digital video system supplied and installed with 2 cameras	Additional	\$3,048.70	Please note the Gatekeeper digital video system come with three (3) cameras	Additional	\$2,000.00	SD Card Recorder with 2 interior cameras.	Additional	\$2,078.00	Pricing for Local Installs	Additional	\$2,350.00	
4	Current Seon digital video system supplied and installed with 2 cameras	Additional	\$4,000.00	Please note that the SEON digital system provided by Lion comes with four (4) cameras.	Additional	\$2,000.00	4 Camera DVR with hard drive with 2 interior cameras.	Additional	\$1,856.00	Pricing For Local Installs	Additional	\$2,250.00	
5	Pre-wiring for 2-way radio and antenna power and ground thru noise suppression switch.	Additional	\$150.00	Pre-wiring to be visible on the plans that will be submitted upon the reception of the PO	Additional	\$29.00	Please provide preferred location of radio. Radio & antenna installation also available upon request.	Additional	\$252.00	Prewire	Additional	\$90.00	*
6	Driver's storage compartment overhead left side	No Charge			Additional	\$122.00		No Charge		Standard	Additional	\$210.00	
7	Installed Zonar current GPS Tracking and Vehicle Diagnostics System with EVIR handheld device and all accessories. Include pricing for each handheld device available	Additional	\$590.00	We can install Zonar however please see Lion's alternative telematics option LionBeat. Please note that LionBeat is accessible on all of your existing accessories Phone tablet computer. Refer to additional Document uploaded: LionBeat-PlanPricing-20210126-ENG	Additional	\$750.00	Samsung tablet or Connect Kit extra if required. Does not include device activation from Zonar.	Additional	\$200.00	EVIR CSA Inspection Kit Samsung Tablet Active2 kit available for addition charge	Additional	\$750.00	
8	Zonar current Fleet GPS Tracking and Vehicle Diagnostics System Installed	Additional		LionBeat is installed for an additional fee however we can work with ASTA and install Zonar as requested.	Additional	\$510.00	Does not include device activation from Zonar.	No Charge		Standard	Additional	\$525.00	
9	Driver's clipboard storage accessible from drivers seat	Additional	\$75.00		Additional	\$15.00		Not Available			No Charge		
10	Traction control through ABS	No Charge			No Charge	\$420.00		No Charge			No Charge		
13	Automatic Greasers Minimum 12 grease points	Not Available			Additional	\$3,450.00		Additional	\$3,400.00		Additional	\$3,450.00	

14	Recommended Level 2 charging system for your bus	Additional		Level 2 or Level 3 ports are built in the LionC and are included in the base price listed. Lion C buses are compatible with all Level 2 chargers. Upon award, the LionEnergy team will contact the school district to define the best charging solution for their needs.	Additional	\$2,799.00	SCH100 EV Charger made by Clipper Creek. Wall mounted. Optional Nuvve Smart Charger Wall mount + Software 2990 Single-Mount Pedestal 1690 For more information please see file: BC_RFSO-EV2021.pdf	Additional	\$10,800.00	25KW DC fast charger	Additional	\$2,500.00	
15	Acoustic ceiling panels throughout	Additional	\$995.00		Additional	\$595.00		Additional	\$620.00		No Charge		
16	10R22.5 Tires instead of base 11R22.5	Additional	\$2,100.00		Additional	-\$75.00	G Rated 10R22.5 Tires	Not Available			Not Available		
17	Interior mirror - 10" x 30" Mirror adjustable no windshield obstruction	No Charge			Additional	\$20.00		Not Available			Additional	\$60.00	
18	Interior-Exterior intercom	Additional	\$450.00		Additional	\$40.00		Additional	\$149.00		Additional	\$70.00	
19	Emergency roof hatch vent with exhaust fan	No Charge			Additional	\$340.00		Additional	\$386.00		Additional	\$195.00	
20	Tinted Windows throughout	Not Available		Lion Leverages laminated windows	No Charge		Standard item on Blue Bird Bus	No Charge		Included	No Charge		
21	Laptop and connectors with applicable programming and software including training for each style of bus purchased. ABS software.	No Charge			Additional	\$2,750.00	Vantage software and ABS software included. Ford/Roush software included at no charge for Gas & Propane buses. Cummins software add 1100 Training included	Additional	\$2,750.00		Additional	\$2,500.00	
22	Wheelchair lift specify OEM in attached documentation. Supply and install wheelchair lift with one chair position across from lift inclusive of tie down system includes Ricon lift Qstraint tie down system and floor pockets for one chair	Additional	\$11,995.00	Wheelchair lift OEM is Braun	Additional	\$8,164.00		Additional	\$6,765.00		Additional	\$6,980.00	Braun
23	Track seating per wheelchair space	Additional	\$800.00		Additional	\$858.00		Additional	\$840.00		Additional	\$885.00	
24	Air operated disc brakes	Additional	\$5,900.00		Additional	\$2,470.00		Additional	\$1,800.00		No Charge		
25	Integrated Child Seats/Per Seat - Attach information details	Additional	\$595.00		Additional	\$600.00		Additional	\$450.00		Additional	\$595.00	
26	Adjustable Foot Pedals	No Charge			Additional	\$795.00		Additional	\$715.00		Additional	\$795.00	
27	Telescopic Steering	No Charge			No Charge		Standard item on Blue Bird Bus	No Charge		Standard	Additional	\$375.00	
28	Hydraulic brake school bus with air seat and air suspension	No Charge		Included in Base	Not Available			Not Available			Not Available		
29	Hydraulic brake school bus (no air components)	Additional	-\$5,900.00	Clients opting for the hydraulic brakes options, will have a \$ 5,900 discount to the LionC Type C base price listed	Not Available			Not Available			Not Available		
30	In-service training for chassis and body maintenance procedures at Purchaser's facility	No Charge			No Charge		Included	Additional	\$850.00		No Charge		
31	Interior mirror 8 X 30 inches adjustable no windshield blockage	No Charge			Not Available		10 x 30 interior mirror available. Add 20	Additional	\$35.00		Not Available		
32	Door handle on exterior of entry door	No Charge			No Charge		Included in the base bus price. For ruggedized exterior entry door handle with lock add 35	Additional	\$35.00		No Charge		
33	Move to one body size larger with same seat count for increased knee room	No Charge		Same as base price listed	Not Available			Additional	\$1,310.00		Additional	\$700.00	
34	Pedestrian Detection System	No Charge			Additional	\$955.00	Blue Bird installed Mobileye Collision Avoidance System. Please see file: Mobileye.pdf	Additional	\$1,000.00	Buswise 500k	Not Available		

35	Stop Arm Camera	Additional	\$383.50		Additional	\$480.00	<p>Gatekeeper Stop Arm Camera with License Plate Recognition 990</p> <p>Seon 1 Camera Stop Arm 480 2 Camera Stop Arm system 820</p> <p>Stop arm camera prices are based on recorder able to accommodate extra cameras. DVR may need to be upgraded as more camera inputs maybe are required.</p>	Additional	\$900.00	Includes license plate reader	Additional	\$900.00	<p>Gatekeeper +900.00 Includes License Plate Reader Seon +300 Camera Only</p>
36	Power and Range upgrade -Price for additional incremental ranges increased and decreased	Not Available		<p>As mentioned Lion has quoted a battery pack adapted for a duty cycle for up to 200 km. Higher range upgrades will be available soon, and pricing will be confirmed once that option is available Please note Lion will work with the school district to identify if a lower battery pack would suffice for their actual needs.</p>	Not Available		This feature is not available this year.	Not Available	No change in power or range available	Additional	\$92,500.00	<p>Upgrade from 200km to 325km: \$92500.00 Downgrade from 200km to 110km \$- 31700.00</p>	