

TRA 25-01 - Supply and Delivery of School Buses - Quote Form - Bus Unit Price: Type C Electric Stock Units

Line Item	Bus Description	Dynamic Specialty Vehicles Ltd.	Western Canada IC Bus Inc.
		Submission 1	Submission 1
		Unit Price	Unit Price
1	Type C 70p STOCK UNIT. Units must be available from the dealer for delivery prior to September 1st 2025 (either in existing inventory or in process of being manufactured).	\$518,820.00	Not available
2	Type C 76p STOCK UNIT. Units must be available from the dealer for delivery prior to September 1st 2025 (either in existing inventory or in process of being manufactured).	\$502,864.00	\$475,000.00

TRA 25-01 - Supply and Delivery of School Buses - Quote Form - Option Pricing: Type C Electric 70p STOCK UNIT

Line Item	Optional Pricing	Dynamic Specialty Vehicles Ltd.		
		Charge Type	Unit Price	Additional Information
1	One (1) additional spare tire mounted	Additional	\$1,076.00	shipped loose
2	Air horn roof mounted	Not Available		
3	Pre-wiring for 2-way radio and antenna power and ground thru noise suppression switch.	No Charge	\$0.00	no charge
4	Driver's storage compartment overhead left side	No Charge		
5	Driver's clipboard storage accessible from drivers seat	Not Available		
6	Traction control through ABS	No Charge		
7	Limited Slip Rear Axle	Not Available		
8	Driver controlled differential lock	Not Available		
9	Automatic Greasers Minimum 12 grease points	Additional	\$3,965.00	
10	Recommended Level 2 charging system for your bus	Additional	\$5,000.00	many viable systems including InCharge Nuve and Polara all with different options and price points starting around 5000
11	Recommended Level 3 charging system for your bus	Additional	\$35,000.00	many viable systems including InCharge Nuve and Polara all with different options and price points starting around 35000
12	Acoustic ceiling panels throughout	Not Available		
13	10R22.5 Tires instead of base 11R22.5	Not Available		
14	Interior mirror - 10" x 30" Mirror adjustable no windshield obstruction	Not Available		
15	Interior-Exterior intercom	No Charge		interior only
16	Emergency roof hatch vent with exhaust fan	Not Available		
17	Tinted Windows throughout	No Charge		
18	Laptop and connectors with applicable programming and software including training for each style of bus purchased. ABS software.	Additional	\$3,000.00	
19	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	Not Available		
20	Track seating per wheelchair space	Not Available		
21	Air operated disc brakes	Not Available		
22	Integrated Child Seats/Per Seat - Attach information details	Not Available		
23	Adjustable Foot Pedals	No Charge		
24	Telescopic Steering	No Charge		
25	Hydraulic brake school bus with air seat and air suspension	Not Available		
26	Hydraulic brake school bus (no air components)	No Charge		
27	In-service training for chassis and body maintenance procedures at Purchaser's facility	Additional	\$1,000.00	
28	Interior mirror 8 X 30 inches adjustable no windshield blockage	Not Available		
29	Door handle on exterior of entry door	No Charge		
30	Move to one body size larger with same seat count for increased knee room	Not Available		
31	Pedestrian Detection System	Not Available		
32	Collision Mitigation System	Not Available		
33	Stop Arm Camera	Additional	\$550.00	Seon camera only Gatekeeper Stop Arm Camera + License Reader 1250
34	Power and Range upgrade / downgrade - Price for each range option available	Not Available		
35	Sears Atlas seat	Not Available		
36	Onspot automatic chains	Not Available		
37	3-point seatbelts (priced per seat)	Not Available		
38	Rear airfoil wind deflector	Additional	\$1,945.00	
39	At the request of the customer dealers and manufacturers are required to supply install and invoice 3rd party options from but not limited to the following providers: CalAmp Spar First Light Safety Products Gatekeeper Geotab Proheat Safefleet Safety Vision Tyler Drive Webasto Zonar.	Additional		quoted upon request

TRA 25-01 - Supply and Delivery of School Buses - Quote Form - Option Pricing: Type C Electric 76p STOCK UNIT

Line Item	Optional Pricing	Dynamic Specialty Vehicles Ltd.			Western Canada IC Bus Inc.		
		Submission 1			Submission 1		
		Charge Type	Unit Price	Additional Information	Charge Type	Unit Price	Additional Information
1	One (1) additional spare tire mounted	Additional	\$1,076.00	shipped loose	Additional	\$1,200.00	*
2	Air horn roof mounted	Not Available			Not Available		*
3	Pre-wiring for 2-way radio and antenna power and ground thru noise suppression switch.	Not Available	\$0.00	not available	No Charge	\$1.00	*
4	Driver's storage compartment overhead left side	Additional	\$276.00		No Charge		*
5	Driver's clipboard storage accessible from drivers seat	Not Available			No Charge		*
6	Traction control through ABS	No Charge			No Charge		*
7	Limited Slip Rear Axle	Not Available			Not Available		*
8	Driver controlled differential lock	Not Available			Not Available		*
9	Automatic Greasers Minimum 12 grease points	Additional	\$3,965.00		Not Available		*
10	Recommended Level 2 charging system for your bus	Additional	\$5,000.00	many viable systems including InCharge Nuve and Polara all with different options and price points starting around 5000	Not Available		*
11	Recommended Level 3 charging system for your bus	Additional	\$35,000.00	many viable systems including InCharge Nuve and Polara all with different options and price points starting around 35000	Additional	\$10,900.00	24KW ABB DC WALLBOX - LIMITED QUANTITIES AVAILABLE
12	Acoustic ceiling panels throughout	Not Available			No Charge		*
13	10R22.5 Tires instead of base 11R22.5	Not Available			Not Available		*
14	Interior mirror - 10" x 30" Mirror adjustable no windshield obstruction	Additional	\$225.00		No Charge		*
15	Interior-Exterior intercom	No Charge		interior only	No Charge		*
16	Emergency roof hatch vent with exhaust fan	Not Available			No Charge		2 Powered Hatches Included
17	Tinted Windows throughout	No Charge			No Charge		*
18	Laptop and connectors with applicable programming and software including training for each style of bus purchased. ABS software.	Additional	\$3,000.00		Additional	\$2,500.00	*
19	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	Not Available			Not Available		*
20	Track seating per wheelchair space	Not Available			Not Available		*
21	Air operated disc brakes	Not Available			No Charge		*
22	Integrated Child Seats/Per Seat - Attach information details	Not Available			Additional	\$1,500.00	*
23	Adjustable Foot Pedals	Not Available			Not Available		*
24	Telescopic Steering	No Charge			No Charge		*
25	Hydraulic brake school bus with air seat and air suspension	Not Available			Not Available		*
26	Hydraulic brake school bus (no air components)	Not Available			Not Available		*
27	In-service training for chassis and body maintenance procedures at Purchaser's facility	Additional	\$1,000.00		Additional	\$800.00	*
28	Interior mirror 8 X 30 Inches adjustable no windshield blockage	Not Available			Not Available		*
29	Door handle on exterior of entry door	No Charge			No Charge		*
30	Move to one body size larger with same seat count for increased knee room	Not Available			Not Available		*
31	Pedestrian Detection System	Not Available			Not Available		*
32	Collision Mitigation System	Not Available			Not Available		*
33	Stop Arm Camera	Additional	\$550.00	Seon camera only Gatekeeper Stop Arm Camera + License Plate Reader 1250	Additional	\$1,000.00	To Be Quoted at Customer Request Depending on Vendor of Cam System
34	Power and Range upgrade / downgrade - Price for each range option available	Not Available			Not Available		*
35	Sears Atlas seat	Not Available			Not Available		*
36	Onspot automatic chains	Not Available			Additional	\$6,800.00	*
37	3-point seatbelts (priced per seat)	No Charge			Not Available		*
38	Rear airfoil wind deflector	Additional	\$1,945.00		Additional	\$1,750.00	*
39	At the request of the customer dealers and manufacturers are required to supply install and invoice 3rd party options from but not limited to the following providers: CalAmp Espar First Light Safety Products Gatekeeper Geotab Proheat Safefleet Safety Vision Tyler Drive Webasto Zonar.	Additional		quoted upon request	Additional	\$1.00	We will quote and supply and install customer requested options as required by the terms.

TRA 25-01 - Supply and Delivery of School Buses - Specification - Base Bus Specifications: Body - Type C Electric 70p STOCK UNIT

		Dynamic Specialty Vehicles Ltd.	
		Submission 1	
Line Item	Body Specifications	Yes/No	Additional Information
1	Four (4) additional power supply feeds at body power source.	Yes	
2	Crossing arm deactivation switch	Yes	
3	Full power steering - minimum 18" diameter steering wheel Tilt steering column telescopic	Yes	
4	HORNS Dual electric	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	
6	Low air warning - light and buzzer	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	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.
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 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 Valeo diesel-fired heater that can provide additional heat for the cabin. The electric heaters and/or the fuel-fired heater are capable of preheating 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 valeo heater the timer can be set on the EV no different than a diesel engine to pre-heat the cabin. The Valeo diesel-fired heater is included in the base price of the bus
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	
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	
11	WINDSHIELD Laminated safety glass tinted Please state what is offered.	Yes	Tinted safety glass
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	
13	Exterior Lettering Six Inch - (Purchaser name) both sides at belt line	Yes	
14	Four Inch - Bus Number two front corners and opposite rear license plate	Yes	
15	Two Inch - Capacity GVW (Purchaser name) on side panel back of entrance door and side panel below driver.	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	
17	Vandal lock for Emergency and Entrance Doors	Yes	
18	Heavy duty entrance door control - air or electric operated Entrance Door must be outward opening	Yes	
19	Two (2) auxiliary 6" electric defroster fans Separate switches on panel	Yes	
20	Driver's dome light on separate switch.	Yes	
21	Rear dome lights on separate switches (with dimmers if available)	Yes	
22	AM/FM CD RADIO W/PA Flush mounted speakers to match bus	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	
24	EMERGENCY EQUIPMENT COMPARTMENT Above windshield; all emergency equipment to meet standards	Yes	
25	Mud flaps front Mud flaps rear with rubber fender skirts	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	
27	Two (2) LED stop arms with strobe lights (red) air operated one (1) front mounted (1) rear mounted. Both with wind guards	Yes	
28	Wet arm windshield wipers intermittent / delay preferred	Yes	
29	Light coloured rubber floor covering and entrance steps. Specify colour.	Yes	Grey
30	Seat spacing minimum 24" knee clearance Frame seat belt ready	Yes	
31	Aluminized side panelling	Yes	
32	77" minimum interior headroom at highest point. Please state Headroom	Yes	77"
33	Interior mirror - minimum 6" up to 10" x 30" Sun visor - Plexiglas 6" x 30"	Yes	
34	Two (2) roof emergency hatches / vents	Yes	
35	Right side luggage compartment 84" preferred Specify largest size available based on body size	No	Not available on Electric Bus
36	Body fully undercoated for noise and enhanced rust protection	Yes	yes
37	Each unit shall be equipped with a Sound Generator that complies with FMVSS and CMVSS 141	Yes	

TRA 25-01 - Supply and Delivery of School Buses - Specification - Base Bus Specifications: Chassis - Type C Electric 70p STOCK UNIT

		Dynamic Specialty Vehicles Ltd.	
		Submission 1	
Line Item	Chassis Specifications	Yes/No	Additional Information
1	Chassis and Body Year	Yes	2024 Blue Bird
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	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 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 encountered in BC. Operating temperatures are recommended to be within -30 – 68 degrees Celsius. 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 maximum cabin heat is activated the system will consume approximately 6% - 20% of usable power. In cold climates it is recommended to have the bus plugged in to a Level 3 DC Fast Charge system to maintain battery temperatures prior to starting routes. In cold climates it is also recommended to store the bus in a climate-controlled building prior to starting routes.
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	See gradeability and acceleration information attached: Gradeability and Acceleration Data.pdf
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?	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.
5	Wheelbase up to 280" - Specify for Each body size	Yes	273" Wheelbase with 3303 body size (71 Passenger bus)
6	Remote air tank drains	Yes	Heated automatic drains for all reservoirs included. If remote manual drains are required then they must be on the left
7	Rear tow hooks	Yes	
8	Wheels - Disc hub piloted	Yes	
9	Tires - Six (6) -11R22.5 Michelin XZE 2 preferred	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	Max rear axle capacity is 23000 lb. Maximum speed is 104.6 kmh. Cruise control is not available. If air ride suspension is used then it will have a rating of 23000 pounds
11	FRONT AXLE 10 000 lb minimum 10 000 lb spring suspension	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	
13	Regenerative braking to charge batteries must meet all Canadian Motor Vehicle Safety Standards in regards to braking systems	Yes	Bluebirds regenerative braking system to charge batteries meets all Canadian Motor Vehicle Safety Standards in regards to braking system
14	BATTERY - *200 kWh minimum* - 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	Number of packs: 9 batteries in two packs for a total of 18 batteries (200kWh) Chemistry: Li-NMC-G batteries which is Lithium-Nickel Manganese Cobalt-Graphite Battery efficiency: Will depend on several factors including driving habits terrain and use of a/c and heaters. Time to charge Level 2 (20%-100%): 400-430 minutes Time to charge Level 2 (20%-80%): 300-330 minutes Battery capacity: 126 Ah Battery storage: 196 kWh Total usable battery storage: 157 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 battery thermal management type is a system of heaters chillers a radiator and fluid pumps design to maintain the optimal operating temperature of the batteries and the main propulsion motor by regulating the temperature of the fluid flowing through them. Temperature sensors monitor the coolant for the batteries and the motor and the VCU uses that information to either activate the heaters to heat the coolant or to activate the chiller to cool the components. Maintenance required for the propulsion batteries is to torque the hardware every 12 months or 20000 miles. Maintenance for the thermal management system is to check the coolant level every 32000 km and change it every five years.
15	Back-up alarm 97 dB minimum	Yes	
16	High capacity dry type air cleaner c/w air restriction gauge to be mounted on dash or air intake	Yes	This vehicle uses an electric motor for its propulsion system and therefore an air cleaner is not required
17	Battery Management System	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
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 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	Blue Bird offers a standard CCS1 connector that allows for Level 3 DC Fast Charging. For maximum 80kW charge rate each Level 3 DCFC 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 including the Nuve HD60 and the InCharge ICE-60. Blue Bird has decided to include bidirectional charging functionality with only DC charging at this time due to V2G interconnection requirements of most utilities across North America. The Nuve RES-HD60-V2G is the required charging solution for V2G capability to be enabled with our electric bus
19	Heavy Duty hoses to meet current coolant standards.	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. *Sample report with minimum requirements can be found in the Documents section.	Yes	
21	Oil lubed front wheel bearings or sealed bearings	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	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 Birds 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
23	Supply Driver Training and Orientation to ASTSBC Trainers to supply training for drivers upon bus delivery.	Yes	
24	Supply line setting ticket	Yes	
25	Heater cut off valve at source	Yes	
26	Battery location and weight - please describe	Yes	The high voltage batteries are located under the chassis frame rails between the front and rear axle. Approximate weight is 1406 kg
27	FULLY ILLUMINATED Stop Arm (pneumatic operated) Stop Sign - red octagon with white lettering	No	Deduction of \$261.00 if selected
28	FULLY ILLUMINATED Stop Arm (electric drive) Stop Sign - red octagon with white lettering	Yes	
29	ILLUMINATED SCHOOL BUS SIGN (front and rear) approved by BC Ministry of Transportation	Yes	

TRA 25-01 - Supply and Delivery of School Buses - Specification - Base Bus Specifications: Body - Type C Electric 76p STOCK UNIT

<u>Line Item</u>	<u>Body Specifications</u>	<u>Dynamic Specialty Vehicles Ltd.</u>		<u>Western Canada IC Bus Inc.</u>	
		<u>Yes/No</u>	<u>Additional Information</u>	<u>Yes/No</u>	<u>Additional Information</u>
1	Four (4) additional power supply feeds at body power source.	Yes		Yes	
2	Crossing arm deactivation switch	Yes		Yes	
3	Full power steering - minimum 18" diameter steering wheel Tilt steering column telescopic	Yes		Yes	
4	HORNS Dual electric	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	
6	Low air warning - light and buzzer	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	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	"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 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 Valeo diesel-fired heater that can provide additional heat for the cabin. The electric heaters and/or the fuel-fired heater are capable of preheating 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 valeo heater the timer can be set on the EV no different than a diesel engine to pre-heat the cabin. The Valeo diesel-fired heater is included in the base price of the bus	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	
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	
11	WINDSHIELD Laminated safety glass tinted Please state what is offered.	Yes	Tinted safety glass	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		Yes	
13	Exterior Lettering Six Inch - (Purchaser name) both sides at belt line	Yes		Yes	
14	Four Inch - Bus Number two front corners and opposite rear license plate	Yes		Yes	
15	Two Inch - Capacity GVW (Purchaser name) on side panel back of entrance door and side panel below driver.	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	
17	Vandal lock for Emergency and Entrance Doors	Yes		Yes	
18	Heavy duty entrance door control - air or electric operated Entrance Door must be outward opening	Yes		Yes	
19	Two (2) auxiliary 6" electric defroster fans Separate switches on panel	Yes		Yes	
20	Driver's dome light on separate switch.	Yes		Yes	
21	Rear dome lights on separate switches (with dimmers if available)	Yes		Yes	
22	AM/FM CD RADIO W/PA Flush mounted speakers to match bus	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		Yes	
24	EMERGENCY EQUIPMENT COMPARTMENT Above windshield; all emergency equipment to meet standards	Yes		Yes	
25	Mud flaps front Mud flaps rear with rubber fender skirts	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	
27	Two (2) LED stop arms with strobe lights (red) air operated one (1) front mounted (1) rear mounted. Both with wind	Yes		Yes	
28	Wet arm windshield wipers intermittent / delay preferred	Yes		Yes	
29	Light coloured rubber floor covering and entrance steps. Specify colour.	Yes	Grey	Yes	Grey
30	Seat spacing minimum 24" knee clearance Frame seat belt ready	Yes		Yes	
31	Aluminized side panelling	Yes		Yes	
32	77" minimum interior headroom at highest point. Please state Headroom	Yes	77"	Yes	78"
33	Interior mirror - minimum 6" up to 10" x 30" Sun visor - Plexiglas 6" x 30"	Yes		Yes	
34	Two (2) roof emergency hatches / vents	Yes		Yes	
35	Right side luggage compartment 84" preferred Specify largest size available based on body size	No	Not available on Electric Bus	Yes	
36	Body fully undercoated for noise and enhanced rust protection	Yes	Asphalt emulsion undercoating included. Option: 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.	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	

TRA 25-01 - Supply and Delivery of School Buses - Specification - Base Bus Specifications: Chassis - Type C Electric 76p STOCK UNIT

Line Item	Dynamic Specialty Vehicles Ltd.		Western Canada IC Bus Inc.	
	Yes/No	Additional Information	Yes/No	Additional Information
1	Yes	2024 Blue Bird	Yes	2025-2026 International
2	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 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 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 encountered in BC. Operating temperatures are recommended to be within -30 - 68 degrees Celsius. 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 maximum cabin heat is activated the system will consume approximately 6% - 20% of usable power. In cold climates it is recommended to have the bus plugged in to a Level 3 DC Fast Charge system to maintain battery temperatures prior to starting routes. In cold climates it is also recommended to store the bus in a climate-controlled building prior to starting routes.	Yes	2025-2026 International
3	Yes	See gradeability and acceleration information attached: Gradeability and Acceleration Data.pdf	Yes	"Range: 200km in bid stated conditions. Acceleration: All acceleration times will comply with bid stated conditions. Max Speed: 100km/h 20% grade 0-100km/h in <40 sec Peak Power: 250kW (335 hp) Continuous Power 160 kW (215 hp) Peak Torque: 15700Nm (11570 ft-lbs) Continuous Torque: 2100Nm (1549 ft-lbs) See Attachment."
4	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 level of efficiency	Yes	"Differential axle ratios are determined by the axle on the vehicle which are semipermanent components. 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	Yes	27" Wheelbase with 3310 body size (75 Passenger bus)	Yes	276"
6	Yes	Heated automatic drains for all reservoirs included. If remote manual drains are required then they must be on the left	Yes	
7	Yes		Yes	
8	Yes		Yes	
9	Yes		Yes	
10	Yes	Max rear axle capacity is 23000 lb. Maximum speed is 104.6 kmh. Cruise control is not available. If air ride suspension is used then it will have a rating of 23000 pounds.	Yes	
11	Yes		Yes	
12	Yes		Yes	
13	Yes	Bluebirds regenerative braking system to charge batteries meets all Canadian Motor Vehicle Safety Standards in regards to braking system	Yes	
14	Yes	Number of packs: 9 batteries in two packs for a total of 18 batteries (200kWh) Chemistry: Li-NMC-G batteries which is Lithium-Nickel Manganese Cobalt-Graphite Battery efficiency: Will depend on several factors including driving habits terrain and use of a/c and heaters. Time to charge Level 2 (20%-100%): 400-430 minutes Time to charge Level 2 (20%-80%): 300-330 minutes Battery capacity: 126 Ah Battery storage: 196 kWh Total Usable battery storage: 157 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 battery thermal management type is a system of heaters chillers a radiator and fluid pumps design to maintain the optimal operating temperature of the batteries and the main propulsion motor by regulating the temperature of the fluid flowing through them. Temperature sensors monitor the coolant for the batteries and the motor and the VCU uses that information to either activate the heaters to heat the coolant or to activate the chiller to cool the components. Maintenance required for the propulsion batteries is to torque the hardware every 12 months or 20000 miles. Maintenance for the thermal management system is to check the coolant level every 32000 km and change it every five years.	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) 210kWh total 608V 345Ah total. Vehicle efficiency 0.84 kWh/km Level 2 Charge time: 20kWh x 1 = 60% x 210kWh T = 37h Mins Usable capacity = 70% x 210kWh = 147 kWh Pack C Rate = 1 (continuous discharge) Pack C Rate = 0.7 (continuous charge) Attachment"
15	Yes		Yes	
16	Yes	This vehicle uses an electric motor for its propulsion system and therefore an air cleaner is not required.	Yes	
17	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	Yes	"Each battery pack is equipped with a battery management system to monitor battery life state of charge and other proprietary variables."
18	Yes	Blue Bird offers a standard CCS1 connector that allows for Level 3 DC Fast Charging. For maximum 80kW charge rate each Level 3 DCFC 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 including the Nuve HD60 and the InCharge ICE-60. Blue Bird has decided to include bidirectional charging functionality with only DC charging at this time due to V2G interconnection requirements of most utilities across North America. The Nuve RES-HD60-V2G is the required charging solution for V2G capability to be enabled with our electric bus	Yes	See Attachment
19	Yes		Yes	
20	Yes		Yes	Customized Regular Data Reporting will continue to be offered as required by the ASTSBC.
21	Yes		Yes	
22	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 Birds 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	
23	Yes		Yes	
24	Yes		Yes	
25	Yes		Yes	
26	Yes	The high voltage batteries are located under the chassis frame rails between the front and rear axle. Approximate weight is 1406 kg	Yes	Batteries are mounted in between the frame rails and rigidly attached using welded and bolt on brackets. Each battery pack weighs 491 lbs. 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.
27	No	Deduction of \$261.00 if selected	Yes	
28	Yes		No	
29	Yes		Yes	