

From: [Wentzel, Steve J.](#)
To: [Barnes, Peter D.](#)
Subject: RE: Electric Battery Powered Automated Side Loading Refuse Truck
Date: Thursday, August 4, 2022 2:52:35 PM

Approved.

-----Original Message-----

From: Barnes, Peter D.
Sent: Thursday, August 4, 2022 2:00 PM
To: Wentzel, Steve J. <[SJWentzel@Columbus.gov](mailto: SJWentzel@Columbus.gov)>
Subject: FW: Electric Battery Powered Automated Side Loading Refuse Truck

Steve,

Roblyn is signing off on the revised quote for the EV-ASL purchase, that includes the \$102K price increase for surcharges assessed by the body manufacturer. However, she wants me to forward Department approval from the Director. Can you please approve the increase?

Tim has approved below.

Thanks,

-Pete

-----Original Message-----

From: Swauger, Timothy J. <[TJSwauger@columbus.gov](mailto: TJSwauger@columbus.gov)>
Sent: Friday, July 29, 2022 10:21 AM
To: Barnes, Peter D. <[PDBarnes@columbus.gov](mailto: PDBarnes@columbus.gov)>
Cc: McSweeney, Kevin M. <[KMMcSweeney@columbus.gov](mailto: KMMcSweeney@columbus.gov)>; Wentzel, Steve J. <[SJWentzel@Columbus.gov](mailto: SJWentzel@Columbus.gov)>; Slusher, Melvin R. <[MRSlusher@columbus.gov](mailto: MRSlusher@columbus.gov)>
Subject: Re: Electric Battery Powered Automated Side Loading Refuse Truck

Yes we are understanding of the price increase and will continue to work for some reimbursement but please move forward.

Thank you

Tim S

> On Jul 29, 2022, at 9:29 AM, Barnes, Peter D. <[PDBarnes@columbus.gov](mailto: PDBarnes@columbus.gov)> wrote:

>

> Gentlemen,

>

> Per the email below, Lion is requesting an LOI from the City in order to enter the EV-ASL into production. The LOI has to come from Purchasing, so before I make that request, I am just confirming that we are ok with the \$102,160.10 price increase, revised quote attached for Steve FYI. I know Kevin has been communicating with CFO regarding the possibility that they may offer some additional funding, but we need to get this truck in production to avoid more surcharges, and if we want it on the street sometime in 2023.

>

> I can account for any additional grant funding (as determined) in the legislation we will have to do to authorize the increase-->additional funds, so as mentioned, I just need authorization to get the ball rolling with Purchasing on the LOI.

>

> Let me know if you have any questions, and how I should proceed.

>

> -Pete

>

> From: Joe Gwin <[Joe.Gwin@Thelionelectric.com](mailto: Joe.Gwin@Thelionelectric.com)>

> Sent: Wednesday, July 27, 2022 9:39 AM

> To: Barnes, Peter D. <[PDBarnes@columbus.gov](mailto: PDBarnes@columbus.gov)>; Joy Niewiadomski <[Joy.Niewiadomski@thelionelectric.com](mailto: Joy.Niewiadomski@thelionelectric.com)>

> Subject: [EXTERNAL] RE: Electric Battery Powered Automated Side Loading Refuse Truck

>

> Yes, that date would also be fine. Just send it over when you get a chance and we'll do what we can!

>

> Thanks,

> Joe Gwin

> National Sales Manager

> Direct line: 518.704.6869

> Cell: 845.418.2188

>

> <https://trucks.thelionelectric.com/><[https://urldefense.com/v3/_https://trucks.thelionelectric.com/_:!!J-4R7rTSYA!b4cj7MfcDtExPwkU1SyeKwrxVfy-cxd7IXnArflavlkozLzySi-10IhFUtNGLfqDO51fE8S3D1nos_6jGK6zN2eqCBUK\\$](https://urldefense.com/v3/_https://trucks.thelionelectric.com/_:!!J-4R7rTSYA!b4cj7MfcDtExPwkU1SyeKwrxVfy-cxd7IXnArflavlkozLzySi-10IhFUtNGLfqDO51fE8S3D1nos_6jGK6zN2eqCBUK$)>

> [cid:image001.png@01D8A32D.A20D3520]

>
> From: Barnes, Peter D. <PDBarnes@columbus.gov<<mailto:PDBarnes@columbus.gov>>>
> Sent: Wednesday, July 27, 2022 9:28 AM
> To: Joe Gwin <Joe.Gwin@TheLionelectric.com<<mailto:Joe.Gwin@TheLionelectric.com>>>; Joy Niewiadomski
<Joy.Niewiadomski@thelionelectric.com<<mailto:Joy.Niewiadomski@thelionelectric.com>>>
> Subject: RE: Electric Battery Powered Automated Side Loading Refuse Truck
>
> *** ATTENTION *** Courriel externe - External email.
>
> Joe,
>
> Thanks for the information. And yes, we can provide a LOI indicating the increase is guaranteed, pending the passage of the legislation on 9/12/22. We, the Department, cannot guarantee a PO by 9/19/22, because we cannot control the approval work-flow. Would it be acceptable to build in a little more cushion, and say PO by 9/23/22? That would ensure all related PO approval work-flow can be completed. Sometimes the Mayor's office does not sign off until Friday of the week Council approves the legislation, which would make a tight window for PO approval by Monday 9/19/22.
>
> Appreciate your help!
>
> -Pete
>
> From: Joe Gwin <Joe.Gwin@TheLionelectric.com<<mailto:Joe.Gwin@TheLionelectric.com>>>
> Sent: Wednesday, July 27, 2022 9:19 AM
> To: Barnes, Peter D. <PDBarnes@columbus.gov<<mailto:PDBarnes@columbus.gov>>>; Joy Niewiadomski
<Joy.Niewiadomski@thelionelectric.com<<mailto:Joy.Niewiadomski@thelionelectric.com>>>
> Subject: [EXTERNAL] RE: Electric Battery Powered Automated Side Loading Refuse Truck
>
> Good morning, Peter.
>
> The first production of the Lion8 refuse truck with your required specifications is expected to begin in September or early October. So even if you had the approval to increase the PO today, we wouldn't begin production until then.
>
> However, there could be an advantage to getting in line now. It might put you in line before other orders that are received from now until late September. We could also inform the body vendor of your intent to purchase. We aren't expecting a price increase from them, but we could ask them to hold price until we get your PO for the increased amount.
>
> We typically require something in writing to hold a production slot or start reaching out to vendors. Can you produce a letter of intent, or some document that guarantees the revised purchase order will be received by September 19th? Without this, it will be difficult for us to lock anything down. Please let me know.
>
> Thanks,
> Joe Gwin
> National Sales Manager
> Direct line: 518.704.6869
> Cell: 845.418.2188
>
> <https://trucks.thelionelectric.com/><[https://urldefense.com/v3/_https://trucks.thelionelectric.com/_:!!J-4R7rTSYA!e4p0wiMa5118WxTnMEagmBLduFTLNV7h-z36j4U8hcNNCvcQF16gnavuvF_WhXDIT9oI8uSMBPm6o7gIbBpeAWmrdaxSS\\$](https://urldefense.com/v3/_https://trucks.thelionelectric.com/_:!!J-4R7rTSYA!e4p0wiMa5118WxTnMEagmBLduFTLNV7h-z36j4U8hcNNCvcQF16gnavuvF_WhXDIT9oI8uSMBPm6o7gIbBpeAWmrdaxSS$)>
> [cid:image005.png@01D8A19C.B10D2B30]
>
> From: Barnes, Peter D. <PDBarnes@columbus.gov<<mailto:PDBarnes@columbus.gov>>>
> Sent: Wednesday, July 27, 2022 8:18 AM
> To: Joy Niewiadomski <Joy.Niewiadomski@thelionelectric.com<<mailto:Joy.Niewiadomski@thelionelectric.com>>>
> Cc: Joe Gwin <Joe.Gwin@TheLionelectric.com<<mailto:Joe.Gwin@TheLionelectric.com>>>
> Subject: RE: Electric Battery Powered Automated Side Loading Refuse Truck
>
> *** ATTENTION *** Courriel externe - External email.
>
> Good Morning Joy,
>
> Following up to see if you were able to discuss this internally, and reach a decision. I will draft the legislation regardless, but to refresh, Council is on summer recess, and will not return until September 12th. So, pending their approval, the PO will not be increased until the end of that week, or possibly the week of 9/19/22. The City would like the truck to be in production without any further delays, so hopefully the existing PO, with pending legislation to accept and appropriate funds for the increase will suffice.
>
> Thank you,

LION8

All-Electric Class 8
Refuse Truck



 **LION ELECTRIC**

Quote summary



EXPERIENCE CENTER LOCATION
New-York Experience Center - 60 Cohoes Ave, Green Island NY 12183, suite 102

Quote number	QUO-01943
Revision Id	2
Effective From	6/20/2022
Effective To	9/18/2022

CUSTOMER INFORMATION
Tim Swauger City of Columbus, OH 111 N Front Street Columbus Ohio 43215 614-645-7627

SALES MANAGER INFORMATION
Joe Gwin Regional Sales Manager 4026 Joe.Gwin@Thelionelectric.com

BILLING ADDRESS INFORMATION
111 N Front Street Columbus Ohio 43215 United States

SHIPPING ADDRESS INFORMATION
111 N Front Street Columbus Ohio 43215 United States

Item name	Price per Unit	Quantity	Volume Discount Amount	Manual Discount Amount	Line Total
2022 Lion8P Refuse - Base Model	\$385,000.00	1	\$0.00		\$385,000.00
ASL_220WB_20+5 (25cu. yd)	\$8,000.00	1	\$0.00		\$8,000.00
Lion 8P Refuse Base Model Bundle	\$1,248.00	1	\$0.00		\$1,248.00
252 kWh_130 miles	\$0.00	1	\$0.00		\$0.00
DIFFERENTIAL LOCK [Bundle Item]	\$0.00	1	\$0.00	\$0.00	\$0.00
AIR BRAKES [Bundle Item]	\$0.00	1	\$0.00	\$0.00	\$0.00
CAB TILT [Bundle Item]	\$0.00	1	\$0.00	\$0.00	\$0.00
DRIVER AIR SEAT [Bundle Item]	\$0.00	1	\$0.00	\$0.00	\$0.00
ELECTRIC HEATER [Bundle Item]	\$0.00	1	\$0.00	\$0.00	\$0.00

Option name	Price per Unit	Quantity	Volume Discount Amount	Manual Discount Amount	Line Total
BUMPERS - BLUE	\$0.00	1	\$0.00		\$0.00
STANDARD TRACTION TIRES	\$0.00	1	\$0.00		\$0.00

TOTAL DEPOSIT DUE AT THE TIME OF PURCHASE ORDER PER VEHICLE	\$0.00
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*The listed taxes and registration fees are estimates only, fees to be calculated at the time of invoice

** Freight charges are estimates only and are subject to change at any time.

Equipment	\$295,572.00
Detail Amount	\$394,248.00
Total Discount	-\$15,000.00
Subtotal	\$674,820.00
Sales Taxes* %.000	\$0.00
Federal Excise Taxes* %.000	\$0.00
Environmental fee – Tire *	\$0.00
Freight Amount**	\$6,000.00
DMV Registration Fees*	TBD
Subtotal with freight and taxes	\$680,820.00
Total Grants Funding	\$0.00



This quote is valid for 90 days from quote date. Please refer to Payment Terms page for detailed payment terms.

Quote summary



Total Amount	\$680,820.00
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Quote Number: QUO-01943
Revision Number: 2

Customer Signature Indicating Acceptance of Quote: *Kathy A. Owens by Roblyn Slaughter*

Purchase Order Number: Not yet assigned

Title/Position: Procurement Admin. Officer

Date: August 5, 2022

*Note: Price subject to change upon final P.O. acceptance.

*Please note that all funding sources, buying incentives, and grants listed above are only temporary. Amounts shown are subject to change based on final order. The client is financially responsible for any discrepancies once the amounts of the award are finalized.



This quote is valid for 90 days from quote date. Please refer to Payment Terms page for detailed payment terms.

Lion8 refuse truck - BASE SPECIFICATIONS - ZERO-EMISSION TRUCK (Options selected in the previous page will supersede the below standard configurations)		
Federal Motor Carrier Safety Approved		
Specific truck information		Refuse 220" no tag axle
Base model	Waste Body 20+5 cu.yd	
GAWR (Gross Axles Weight Rating)	60 000 lb	
Legal GVWR / GCWR	Bridge: 51 500 lb . + 2 000 lb for EV	
AXLES CONFIGURATION	6x4	
Chassis empty weight (no body) - 252 kWh	20 990 lb	
Chassis empty weight (no body) - 336 kWh	22 310 lb	
Model year	2021	
CERTIFICATION/COMPLIANCE	FMVSS / CMVSS	
Complete / Incomplete vehicle	Incomplete	
Application		
Max Pedal Speed	61 MPH	
Operating Speed	61 MPH	
Maintanable speed	61 MPH	
Maximum reverse speed	5 MPH	
Cab structure		
Forward position, aluminium structure, steel floor, flat & no doghouse		STANDARD
Panels	Composite & Colored Gel Coat Standard	STANDARD
Configuration	Extended, 60.25" lg	STANDARD
Body width	96.9 in	
Cab Height from ground	108.7 in	
Charging		
CHARGING PORT Position	Right side, 2nd step cab access door	STANDARD
Charging Port & Onboard Charger	Level III DC - Fast Charge CCS1 Combo	STANDARD
State Of Charge (SOC) indicator	Pilot Light @ charge port	STANDARD
Smart Charge	STANDARD	
Motor [Engine]/Equipment		
Traction Motor	DANA TM4 SUMO HD 800 VDC DIRECT DRIVE	
Motor Drive	DANA TM4 CO300	
Max/Cont. Power	350 kW [470 HP]	
Max/Cont. Torque	2500 lb-ft	
Battery chemistry	Lithium-Ion (NMC)	
Battery type	BMW 800V	
HV Battery location	Back Of Cab [BOC]	
Regenerative Braking	STANDARD	
Gear Shift Control	DIRECT DRIVE // R.N.D.	
Air Compressor	GARDNER DENVER HYDROVANE	STANDARD
Air Compressor capacity	15.8 CFM	STANDARD
Air Cleaner	AIR COMPRESSOR	STANDARD
Radiator Fan	DUAL ELECTRIC FANS	STANDARD
Radiator coolant specs	Cummins Engineering Standard CES 14603	STANDARD
Basic Weight Specs		
GAWR - Gross Axle Weight Rating	Front	20,000 lb
	Rear	40,000 lb
	Tag	NA
Steering system		
Front Axle steering box	TRW TAS85	STANDARD
Assist steering box	TRW RCS65	STANDARD
Power Steering	Electric hydraulic pump	STANDARD
Front Axle & Suspension		
Front Axle & Suspension	HENDRICKSON SOFTEK™ (Include STEERTEK™ NXT Axle assembly)	20,000 lb

Rear Axle & Suspension		
Rear Axles	Front Tandem, brand & model	Dana Spicer D40-172D (DS404, 15352291)☒
	Rear Tandem, brand & model	Dana Spicer R40-172D (RS404,15352292)☒
	1st Ratio	6.17
Rear suspension	Brand & model	Hendrickson Primaax 46k Air suspension + shocks
Locking Options	Interaxle	STANDARD
Leveling valve	Single	STANDARD
Tag axle	Self steer suspension, brand & model	NA
	Breaks, brand & model	NA
	Brakes chamber size	NA
REAR SUSPENSION TAG AXLE EXT SWITCH		NA
Brakes system		
Front Brakes type & model	Disk, Air	BENDIX ADB22X BX276
Rear Brakes type & model	Disk, Air	BENDIX ADB22X BX276
Disks / Drums model	CONMET PRESET DISC	STANDARD
Parking Brake	AIR VALVE - Dashbord MANUAL KNOB OPERATED	STANDARD
Tires & Wheels		
Front tires	425/65R22.5	STANDARD
	Michelin XFE™ Wide Base	
Rear tire	11R22.5	STANDARD
	MICHELIN X® INCITY Z	
Front wheels	Dimensions	22.5X12
Rear wheels	Dimensions	22.5 X 8.25
Wheels Material	Aluminum, Accuride Standard Polish	STANDARD
Tag Axle	Tire dimensions	NA
	Wheel dimensions	NA
	Brand & model	NA
Frame & Equipment		
Frame Rails		120 KSI STEEL 0.354" x 11.81" x 3.73"
Crossmember		100 KSI
Frame Fasteners	BOBTAILS // HUCK BOLTS	STANDARD
Front Tow Hooks Receptacle		STANDARD
Front Bumper material	One - piece // COMPOSITE	STANDARD
Front Bumper color	Blue - Lion Electric Pantone 3005 RAL 5015	STANDARD (CUSTOMER TO CHOOSE DIFFERENT COLOR IF NEEDED)
Air equipment		
Air tank type	Painted steel	STANDARD
Primary tank volume		35 396 cm3 (2160 po3)
Secondary tank volume		35 396 cm3 (2160 po3)
AIR TANK DRAIN	Manual	STANDARD
SCHRADER VALVE ON AIR DRYER		STANDARD
Seating		
DRIVER SEAT	NATIONAL SEATING CAPTAIN LO MODURA BLACK	STANDARD
PASSENGER SEAT	NATIONAL SEATING CAPTAIN LO MODURA BLACK	STANDARD
DRIVER SEAT SUSPENSION	Air	STANDARD
DRIVER SEAT MATERIAL	CLOTH	STANDARD
DRIVER SEAT COLOR	DARK GREY	STANDARD
ARM REST		STANDARD
SEAT BELT COLOR	ORANGE	STANDARD
SEAT BELTS (Driver)	3 POINT ADJUSTABLE D-RING RETRACTOR	STANDARD
SEAT BELTS INDICATOR	Light & audible alarm (DRIVER ONLY)	STANDARD
SEAT BELTS (Passenger)	FIXED D-RING RETRACTOR	STANDARD

Cab		
Cab Suspension	Pneumatic	STANDARD
Cab color	White gelcoat - CODE PPG 934313	STANDARD - CUSTOMER TO CHOOSE DIFFERENT COLOR IF REQUIRED
Cab Exterior trim	Black gelcoat GLOSS CODE PPG 934316	STANDARD
Cab plastic trim	Black CODE PPG 934316	STANDARD
Quarter Fender Composite		STANDARD
Cab tilt	Electric pump	STANDARD
Windshield & Glazing Windows	Clear	STANDARD
Xtra grip cab ingress step		STANDARD
Doors	COMPOSITE + STEEL	STANDARD
Mirrors: Heated, Motorized, with Flasher & Convex		STANDARD
Windshield Wiper: Intermittent, w/T winter blade & washer fluid arm jet		STANDARD
Cab equipment		
Cab trim level	Premium	STANDARD
Interior trim color	LIGHT GREY CODE PPG 934318	STANDARD
Headliner color	Light grey CODE PPG 934317	STANDARD
MAIN CLUSTER - DASHBOARD: charge, range and diagnostic infos available.	US - MPH	STANDARD
CAB DECALS	US - English	STANDARD
RADIO & AUDIO	AM/FM/WB/USB/MP3/Bluetooth	STANDARD
Horn	Dual electric	STANDARD
18" Steering wheel + tilting & telescopic column		STANDARD
Power door locks	Assisted (door trim button)	STANDARD
Power Windows		STANDARD
Ignition key - 4 position	(OFF/RUN/START/ACCESSORIES)	STANDARD
Ignition & Door key alike	Key alike	STANDARD
Number of keys		2
Interior lighting: Driver & Passenger reading light, Dome light, footwell light		STANDARD
Electrical outlets	1 x 12VDC // 1x USB	STANDARD
Storage: Glovebox, center console & tray, cupholders (2x)		STANDARD
Interior Sunvisor	3X	STANDARD
Floormat	Vinyl	STANDARD
Coat hook	2X	STANDARD
Grab handle interior	Blue - Lion Electric Pantone 3005 RAL 5015	STANDARD
OBD Plug		STANDARD
Electrical LV		
12 V LIGHTING SYSTEM WITH CIRCUIT PROTECTION		STANDARD
MULTIPLEX ELECTRICAL SYSTEM W CENTRLZD POWER DISTR		STANDARD
CIRCUITS Identification	Numbered	STANDARD
REMOTE DIAGNOSTICS		STANDARD
On/Off Disconnect Switch / paddlock ready	AT 12 VDC BATTERIES	STANDARD
Customer connector @ End of frame	CAN BUS / 12V Ignition / GRND / Rearview Camera	STANDARD
Customer connector @ cab, under dash	CAN BUS / 12V live / 12V ignition / GRND	STANDARD
12V BATTERIES	2X 12V 430 CCA	STANDARD
24V		STANDARD
Lights & Instruments		
Headlamps	LED	STANDARD
Exterior Lights	LED	STANDARD
Interior Lights	LED	STANDARD
Day time running lights [DRL]		STANDARD
Marker Lights	(5) Marker Lights FMVSS 108	STANDARD
Marker Lights SOC indicator, 3 LED		STANDARD
Marker, Stop, Turn, backup & license plate lights		STANDARD
MARKERT LIGHTS INTERRUPTER SWITCH (front markers only)		STANDARD
HVAC - heating - AC		
Air Conditioning		STANDARD
Cab air filter		STANDARD
10 kW Heater ELECTRIC with defrost & recirculation modes		STANDARD
Programmable pre-heat setting		STANDARD

Passive and Active Safety	
ABS - Anti Lock Braking System	STANDARD
Backup Alarm	STANDARD
Sound Generator [1 to 30 Km/h]	FMVSS No. 141 ECCO Sound GEN - "terraglide" Tone
Rear Camera Images displayed unto central dash screen, when reverse is engaged - If rear-view camera option not selected, wiring only will be provide	STANDARD
Alarm when door open & neutral not engaged	STANDARD
Resettable impact sensor	STANDARD
Other Options	
Emergency Kit: Triangle, First aid kit, Fire Extinguisher 5 lb	STANDARD
Miscellaneous	
Incomplete vehicle document	STANDARD
Owners manual	STANDARD
Limited Warranty	STANDARD
Base Dimensions	
WB - Wheelbase	220 in
BBC - Bumper to Back of Cab	79 in
BA - Bumper to front Axle	68.4 in
CFA - Back of Cab to front Axle	10.6 in
Back Of battery pack	7.1 in
Overall Comb. Length	345.7 in
Rear Frame Overhang	55.8 in
TAS - Tandem Axle Spread	54.0 in
CA - Cab to rear axle	209.4 in
Eff CA - Effective CA	143.6 in
CE - Cab to End of frame	239.0 in
AF - After Frame	28.8 in
FH - Frame Height at rear axle	41.8 in
Frame Width at rear	34.0 in
Cab Tilt Angle (degrees)	45 degrees
Ground Clearance front	10.3 in
Ground Clearance rear	14.3 in
OAH - Overall height (cab)	114.9 in
OAW - Overall width	102.0 in
Turning Radius (wall to wall)	36.60 ft
Turning Radius (curb to curb)	34.7 ft